

DUKE ENERGY KENTUCKY

ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ERLANGER OPERATIONS CENTER						
INTERIM SURVIVOR CURVE.. IOWA 90-R1						
PROBABLE RETIREMENT YEAR.. 6-2065						
NET SALVAGE PERCENT.. 0						
2005	1,329,372.71	285,842	829,983	499,390	41.80	11,947
2006	2,087,225.32	422,621	1,227,140	860,086	41.87	20,542
2007	2,121,579.00	401,848	1,166,822	954,757	41.94	22,765
2008	45,579.78	8,027	23,308	22,272	42.01	530
2009	17,038.06	2,762	8,020	9,018	42.08	214
2010	62,574.42	9,237	26,821	35,753	42.15	848
2012	38,073.81	4,460	12,950	25,124	42.28	594
2015	126,443.00	8,474	24,605	101,838	42.46	2,398
2016	33,000.00	1,609	4,672	28,328	42.53	666
2018	6,116,616.74	62,451	181,335	5,935,281	42.65	139,163
	11,977,502.84	1,207,331	3,505,656	8,471,847		199,667

KENTUCKY SERVICE BUILDING - 19TH AND AUGUSTINE
INTERIM SURVIVOR CURVE.. IOWA 90-R1
PROBABLE RETIREMENT YEAR.. 6-2042
NET SALVAGE PERCENT.. 0

1939	29.40	22	29			
1947	378,142.98	275,371	378,143			
1949	7,874.04	5,693	7,874			
1950	2,833.13	2,041	2,833			
1951	610.66	438	611			
1953	4,989.45	3,551	4,989			
1955	121.96	86	122			
1956	313.02	220	313			
1957	1,480.66	1,036	1,481			
1958	91.02	63	91			
1959	1,905.03	1,320	1,905			
1961	3,761.02	2,581	3,761			
1964	1,660.34	1,121	1,660			
1965	2,410.30	1,619	2,410			
1966	478.18	319	478			
1967	8,188.75	5,435	8,189			
1969	4,337.05	2,842	4,337			
1970	1,925.44	1,254	1,925			
1972	4,634.39	2,976	4,634			
1973	8,585.30	5,473	8,585			
1974	6,637.72	4,199	6,638			
1975	6,319.85	3,967	6,320			

DUKE ENERGY KENTUCKY

ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
KENTUCKY SERVICE BUILDING - 19TH AND AUGUSTINE INTERIM SURVIVOR CURVE.. IOWA 90-R1 PROBABLE RETIREMENT YEAR.. 6-2042 NET SALVAGE PERCENT.. 0						
1976	337.18	210	337			
1977	975.57	602	976			
1978	23,626.36	14,454	23,626			
1979	39,938.23	24,208	39,938			
1980	11,560.66	6,940	11,561			
1981	33,194.05	19,730	33,194			
1982	12,516.21	7,362	12,516			
1983	14,035.96	8,165	14,036			
1984	42,353.87	24,361	42,354			
1985	24,798.14	14,094	24,798			
1986	443.45	249	443			
1987	12,451.85	6,897	12,452			
1988	593.39	324	593			
1989	35,301.47	19,011	35,301			
1990	3,340.07	1,771	3,340			
1991	38,025.34	19,838	38,025			
1992	58,847.35	30,180	58,847			
1993	59,866.03	30,154	59,866			
1994	230,910.34	114,088	230,910			
1995	12,489.98	6,046	12,490			
1996	5,130.73	2,430	5,131			
1998	26,943.53	12,155	26,944			
1999	105,835.05	46,506	105,835			
2000	208,595.64	89,031	208,596			
2001	104,267.18	43,130	104,267			
2002	11,191.29	4,473	11,191			
2003	57,780.29	22,261	57,780			
2004	11,087.97	4,103	11,088			
2005	32,681.20	11,563	32,681			
2006	10,536.72	3,550	10,537			
2008	83,669.17	25,054	83,669			
2009	37,271.38	10,412	37,271			
2017	89,715.62	5,236	39,397	50,319	22.59	2,227
2018	137,434.02	2,798	21,053	116,381	22.61	5,147
	2,025,074.98	953,013	1,858,375	166,700		7,374

DUKE ENERGY KENTUCKY

ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
MINOR STRUCTURES						
SURVIVOR CURVE.. IOWA 40-R1						
NET SALVAGE PERCENT.. -10						
2009	122,757.28	23,023	66,851	68,182	33.18	2,055
2010	104,123.82	17,524	50,883	63,653	33.88	1,879
2011	271,579.95	40,479	117,536	181,201	34.58	5,240
2012	1,791,285.70	232,509	675,122	1,295,292	35.28	36,715
2013	155,103.94	17,061	49,539	121,075	36.00	3,363
2014	528,705.64	47,835	138,896	442,681	36.71	12,059
2015	88,164.24	6,231	18,093	78,888	37.43	2,108
2016	13,354.46	676	1,963	12,727	38.16	334
2018	91,681.10	933	2,709	98,140	39.63	2,476
	3,166,756.13	386,271	1,121,592	2,361,840		66,229
	17,169,333.95	2,546,615	6,485,623	11,000,387		273,270
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					40.3	1.59

DUKE ENERGY KENTUCKY

ACCOUNT 1910 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2010	2,405.95	1,023	1,021	1,385	11.50	120
2013	20,895.34	5,746	5,733	15,162	14.50	1,046
2014	43,997.73	9,899	9,876	34,122	15.50	2,201
2017	687,664.25	51,575	51,455	636,209	18.50	34,390
2018	2,999.36	75	74	2,925	19.50	150
	757,962.63	68,318	68,159	689,803		37,907
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.2 5.00

DUKE ENERGY KENTUCKY

ACCOUNT 1911 ELECTRONIC DATA PROCESSING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2015	9,131.10	6,392	6,391	2,740	1.50	1,827
2016	26,226.47	13,113	13,111	13,115	2.50	5,246
2017	5,177.15	1,553	1,553	3,624	3.50	1,035
	40,534.72	21,058	21,055	19,480		8,108
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						2.4 20.00

DUKE ENERGY KENTUCKY

ACCOUNT 1940 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
1994	2,647.12	2,594	2,575	72	0.50	72
1996	2,992.80	2,694	2,674	319	2.50	128
1999	5,371.46	4,190	4,159	1,212	5.50	220
2004	37,038.55	21,482	21,322	15,717	10.50	1,497
2005	2,964.11	1,601	1,589	1,375	11.50	120
2006	2,287.17	1,144	1,135	1,152	12.50	92
2007	17,796.89	8,187	8,126	9,671	13.50	716
2010	1,150.51	391	388	763	16.50	46
2014	10,220.00	1,840	1,826	8,394	20.50	409
2015	37,021.21	5,183	5,145	31,876	21.50	1,483
	119,489.82	49,306	48,939	70,551		4,783
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						14.8 4.00

DUKE ENERGY KENTUCKY

ACCOUNT 1970 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2006	1,639,190.13	1,365,986	1,365,856	273,334	2.50	109,334
2007	2,111,432.41	1,618,772	1,618,619	492,813	3.50	140,804
2008	1,080,334.10	756,234	756,162	324,172	4.50	72,038
2009	145,687.05	92,268	92,259	53,428	5.50	9,714
2010	203,089.96	115,085	115,074	88,016	6.50	13,541
2011	708,177.65	354,089	354,056	354,122	7.50	47,216
2012	525,145.64	227,561	227,539	297,607	8.50	35,013
2013	1,417.96	520	520	898	9.50	95
2014	141,883.83	42,565	42,561	99,323	10.50	9,459
2015	485,705.76	113,330	113,319	372,387	11.50	32,381
2016	603,244.17	100,543	100,534	502,710	12.50	40,217
2017	411,282.85	41,128	41,124	370,159	13.50	27,419
	8,056,591.51	4,828,081	4,827,623	3,228,969		537,231
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.0						6.67

DUKE ENERGY KENTUCKY

ACCOUNT 1980 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2010	24,647.40	13,967	13,964	10,683	6.50	1,644
2011	3,561.95	1,781	1,781	1,781	7.50	237
2012	13,294.66	5,761	5,760	7,535	8.50	886
	41,504.01	21,509	21,505	19,999		2,767
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						7.2 6.67

DUKE ENERGY KENTUCKY

ACCOUNT 3110 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 85-S1						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. -15						
1981	29,925,484.13	21,632,833	28,189,639	6,224,668	20.65	301,437
1982	208,863.68	149,547	194,874	45,319	20.70	2,189
1983	67,223.88	47,631	62,068	15,240	20.76	734
1985	370,433.88	256,639	334,425	91,574	20.88	4,386
1986	56,946.12	38,992	50,810	14,678	20.93	701
1987	25,699.44	17,374	22,640	6,914	20.99	329
1988	7,679.70	5,122	6,674	2,157	21.05	102
1990	248,748.12	161,178	210,030	76,030	21.16	3,593
1991	7,244.23	4,622	6,023	2,308	21.21	109
1992	214,519.73	134,630	175,436	71,262	21.26	3,352
1993	106,959.72	65,932	85,916	37,088	21.32	1,740
1994	208,985.68	126,454	164,782	75,552	21.37	3,535
1999	70,010.31	37,765	49,211	31,300	21.62	1,448
2001	242,930.51	123,462	160,883	118,487	21.72	5,455
2002	231,816.95	113,903	148,426	118,163	21.77	5,428
2003	103,526.01	49,066	63,938	55,117	21.81	2,527
2004	228,372.86	103,948	135,454	127,175	21.86	5,818
2005	151,399.00	65,970	85,965	88,144	21.90	4,025
2006	3,134,043.42	1,300,774	1,695,032	1,909,118	21.94	87,015
2007	236,076.01	92,691	120,785	150,702	21.99	6,853
2008	168,425.07	62,236	81,099	112,589	22.03	5,111
2009	512,631.92	176,616	230,147	359,379	22.07	16,284
2010	450,707.51	143,609	187,136	331,177	22.10	14,985
2011	484,241.10	140,489	183,071	373,807	22.14	16,884
2012	637,062.52	165,646	215,852	516,769	22.18	23,299
2013	508,877.34	115,983	151,137	434,072	22.21	19,544
2014	824,503.51	159,569	207,934	740,245	22.24	33,284
2015	19,663,993.25	3,071,378	4,002,298	18,611,295	22.27	835,711
2016	11,308,182.70	1,310,975	1,708,325	11,296,085	22.30	506,551
2017	42,106,431.70	3,048,190	3,972,081	44,450,315	22.33	1,990,610
2018	13,108,054.55	329,825	429,793	14,644,469	22.35	655,234
	125,620,074.55	33,253,049	43,331,885	101,131,200		4,558,273

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 22.2 3.63

DUKE ENERGY KENTUCKY

ACCOUNT 3120 BOILER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 45-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. -15						
1980	756,874.16	558,321	870,405			
1981	127,037,317.94	92,761,697	146,092,916			
1982	155,686.95	112,489	179,040			
1983	726,613.04	519,412	833,197	2,408	15.87	152
1984	1,025,483.09	724,577	1,162,306	16,999	16.06	1,058
1985	951,054.04	664,168	1,065,403	28,309	16.24	1,743
1986	487,013.90	335,933	538,876	21,190	16.42	1,290
1987	686,061.71	467,371	749,718	39,253	16.59	2,366
1988	140,298.01	94,287	151,247	10,095	16.77	602
1989	262,772.03	174,148	279,354	22,834	16.94	1,348
1990	806,533.22	526,763	844,989	82,524	17.11	4,823
1991	496,923.30	319,487	512,494	58,967	17.28	3,412
1992	1,809,647.08	1,144,956	1,836,643	244,451	17.44	14,017
1993	325,255.36	202,242	324,420	49,624	17.61	2,818
1994	4,462,075.43	2,724,202	4,369,938	761,449	17.77	42,850
1995	330,362.55	197,830	317,342	62,575	17.93	3,490
1996	109,055.99	63,964	102,606	22,809	18.09	1,261
1998	1,554,131.73	870,213	1,395,923	391,328	18.41	21,256
1999	4,568,625.22	2,494,666	4,001,735	1,252,184	18.56	67,467
2000	1,036,770.86	550,359	882,840	309,446	18.72	16,530
2001	171,357.39	88,299	141,642	55,419	18.87	2,937
2002	46,497,198.54	23,186,967	37,194,602	16,277,177	19.03	855,343
2003	612,393.49	294,687	472,712	231,540	19.18	12,072
2004	2,009,650.85	930,148	1,492,066	819,033	19.33	42,371
2005	14,080,374.66	6,242,020	10,012,929	6,179,502	19.48	317,223
2006	525,805.73	222,152	356,358	248,319	19.63	12,650
2007	2,893,255.15	1,158,779	1,858,817	1,468,427	19.78	74,238
2008	1,628,627.97	614,618	985,919	887,003	19.92	44,528
2009	3,735,950.66	1,316,829	2,112,347	2,183,996	20.07	108,819
2010	2,060,536.32	672,000	1,077,966	1,291,650	20.21	63,911
2011	326,067.74	96,954	155,526	219,452	20.36	10,779
2012	9,949,081.35	2,656,818	4,261,846	7,179,597	20.50	350,224
2013	1,221,410.71	286,122	458,973	945,649	20.64	45,816
2014	36,613,397.00	7,288,446	11,691,518	30,413,888	20.78	1,463,613
2015	130,914,486.32	21,101,321	33,848,982	116,702,677	20.92	5,578,522

DUKE ENERGY KENTUCKY

ACCOUNT 3120 BOILER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 45-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. -15						
2016	12,075,972.74	1,447,203	2,321,483	11,565,886	21.06	549,187
2017	6,278,285.43	471,179	755,826	6,464,202	21.20	304,915
2018	91,999,759.96	2,422,814	3,886,476	101,913,247	21.33	4,777,930
	511,322,167.62	176,004,441	279,597,381	308,423,112		14,801,561
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						20.8 2.89

DUKE ENERGY KENTUCKY

ACCOUNT 3123 BOILER PLANT EQUIPMENT - SCR CATALYST

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 10-S2.5						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. 0						
2002	2,230,486.31	2,085,505	2,230,486			
2013	536,263.68	277,785	536,264			
2015	2,653,930.47	915,606	2,442,043	211,887	6.55	32,349
	5,420,680.46	3,278,896	5,208,793	211,887		32,349
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					6.6	0.60

DUKE ENERGY KENTUCKY

ACCOUNT 3140 TURBOGENERATOR UNITS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 40-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. -15						
1981	16,964,940.34	12,671,538	18,648,001	861,680	13.68	62,988
1982	58,061.01	42,865	63,082	3,688	13.92	265
1983	15,183.01	11,073	16,296	1,165	14.16	82
1984	10,207.91	7,352	10,820	920	14.40	64
1985	20,496,632.97	14,576,621	21,451,606	2,119,522	14.63	144,875
1986	463,905.17	325,579	479,137	54,354	14.86	3,658
1987	636,364.46	440,636	648,460	83,360	15.08	5,528
1989	54,725.97	36,819	54,184	8,750	15.52	564
1990	158,093.76	104,765	154,177	27,631	15.73	1,757
1991	198,456.18	129,387	190,412	37,813	15.95	2,371
1992	640,896.37	410,806	604,560	132,470	16.16	8,197
1993	66,699.95	42,021	61,840	14,865	16.36	909
1994	88,755.33	54,866	80,743	21,325	16.57	1,287
1996	96,612.68	57,327	84,365	26,740	16.97	1,576
1997	96,476.91	55,970	82,368	28,580	17.17	1,665
1999	2,355.17	1,300	1,913	795	17.56	45
2000	341,306.00	183,169	269,560	122,942	17.76	6,922
2001	206,777.67	107,699	158,495	79,300	17.95	4,418
2003	409,131.79	199,041	292,918	177,584	18.33	9,688
2004	89,271.54	41,762	61,459	41,203	18.52	2,225
2005	9,210,975.37	4,126,462	6,072,686	4,519,936	18.71	241,579
2006	77,714.53	33,210	48,873	40,498	18.89	2,144
2007	4,430,931.89	1,794,253	2,640,503	2,455,069	19.08	128,672
2008	12,485.43	4,766	7,014	7,344	19.26	381
2009	1,689,702.44	601,971	885,887	1,057,270	19.45	54,358
2010	957,122.23	315,282	463,983	636,707	19.63	32,435
2011	276,330.25	83,147	122,363	195,417	19.81	9,865
2012	943,595.69	254,670	374,784	710,351	19.99	35,535
2013	875,927.28	207,809	305,821	701,495	20.16	34,796
2014	2,639,226.76	531,691	782,460	2,252,651	20.34	110,750
2015	30,674,980.44	4,988,764	7,341,688	27,934,540	20.52	1,361,332
2016	1,338,736.61	162,407	239,005	1,300,542	20.69	62,858
2017	867,983.97	66,130	97,320	900,862	20.86	43,186
2018	12,240,464.42	320,382	471,488	13,605,046	21.04	646,628
	107,331,031.50	42,991,540	63,268,270	60,162,417		3,023,603

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.9 2.82

DUKE ENERGY KENTUCKY

ACCOUNT 3150 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. -15						
1980	600,888.76	445,481	636,872	54,150	18.74	2,890
1981	21,334,433.31	15,637,372	22,355,624	2,178,974	18.93	115,107
1982	258,626.65	187,321	267,799	29,621	19.12	1,549
1983	48,933.57	35,022	50,068	6,205	19.29	322
1984	276,234.86	195,208	279,075	38,595	19.46	1,983
1985	24,050.59	16,782	23,992	3,666	19.61	187
1986	25,758.88	17,735	25,354	4,268	19.76	216
1987	32,911.68	22,340	31,938	5,911	19.91	297
1989	61,628.68	40,612	58,060	12,813	20.17	635
1990	146,081.85	94,754	135,463	32,531	20.29	1,603
1992	284,827.83	178,519	255,216	72,336	20.52	3,525
1995	1,290.00	762	1,089	394	20.82	19
2001	1,971,382.61	994,391	1,421,609	845,481	21.31	39,675
2002	129,665.97	63,206	90,361	58,755	21.38	2,748
2004	87,558.37	39,520	56,499	44,193	21.50	2,055
2005	423,653.63	182,910	261,493	225,708	21.56	10,469
2006	50,031.42	20,575	29,415	28,122	21.61	1,301
2009	106,920.20	36,510	52,196	70,763	21.76	3,252
2010	308,549.41	97,213	138,978	215,853	21.81	9,897
2011	195,647.63	56,228	80,385	144,610	21.85	6,618
2012	4,537,211.10	1,168,942	1,671,152	3,546,641	21.89	162,021
2013	380,227.18	85,751	122,592	314,669	21.93	14,349
2014	133,522.10	25,581	36,571	116,979	21.96	5,327
2015	12,011,588.32	1,853,748	2,650,170	11,163,157	22.00	507,416
2016	1,303,052.03	149,416	213,609	1,284,901	22.03	58,325
2018	276,820.70	6,908	9,876	308,468	22.09	13,964
	45,011,497.33	21,652,807	30,955,458	20,807,764		965,750
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						21.5 2.15

DUKE ENERGY KENTUCKY

ACCOUNT 3160 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 50-S0						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. -15						
1981	2,756,671.87	1,931,269	2,716,292	453,881	17.34	26,175
1982	235,379.13	163,272	229,639	41,047	17.46	2,351
1983	113,761.60	78,129	109,887	20,939	17.57	1,192
1984	157,554.25	107,069	150,590	30,597	17.68	1,731
1985	101,065.69	67,927	95,538	20,688	17.79	1,163
1986	113,063.57	75,118	105,652	24,371	17.90	1,362
1987	121,651.98	79,838	112,291	27,609	18.01	1,533
1988	81,696.88	52,929	74,444	19,508	18.12	1,077
1989	160,311.26	102,490	144,150	40,208	18.22	2,207
1990	108,479.70	68,390	96,189	28,562	18.32	1,559
1991	420,109.15	260,980	367,063	116,062	18.42	6,301
1992	141,502.92	86,528	121,700	41,028	18.52	2,215
1993	49,356.38	29,681	41,746	15,014	18.62	806
1994	217,002.50	128,213	180,329	69,224	18.72	3,698
1995	20,672.44	11,984	16,855	6,918	18.82	368
1996	6,611.10	3,756	5,283	2,320	18.92	123
1997	108,562.36	60,371	84,911	39,936	19.01	2,101
1999	643,219.54	340,781	479,302	260,401	19.21	13,555
2000	90,906.69	46,895	65,957	38,586	19.30	1,999
2001	417,408.83	209,073	294,057	185,963	19.40	9,586
2002	280,411.23	136,084	191,399	131,073	19.49	6,725
2003	41,468.35	19,439	27,341	20,348	19.59	1,039
2004	251,997.55	113,771	160,017	129,780	19.68	6,595
2005	546,553.86	236,468	332,588	295,949	19.78	14,962
2006	60,770.89	25,084	35,280	34,606	19.88	1,741
2007	49,419.39	19,375	27,251	29,582	19.97	1,481
2008	523,455.62	193,535	272,203	329,771	20.07	16,431
2009	783,973.60	271,030	381,198	520,371	20.17	25,799
2010	257,396.74	82,482	116,009	179,997	20.27	8,880
2011	1,530,106.05	447,947	630,029	1,129,593	20.38	55,427
2012	852,050.71	224,309	315,486	664,372	20.48	32,440
2013	346,768.32	80,283	112,916	285,867	20.59	13,884
2014	564,500.93	111,230	156,443	492,733	20.70	23,804
2015	4,911,906.26	785,281	1,104,482	4,544,210	20.81	218,367
2016	2,258,420.70	269,172	378,585	2,218,599	20.93	106,001
2017	1,741,502.07	130,738	183,880	1,818,847	21.05	86,406
2018	519,237.91	13,770	19,367	577,756	21.18	27,278
	21,584,928.02	7,064,691	9,936,350	14,886,317		728,362

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.4 3.37

DUKE ENERGY KENTUCKY

ACCOUNT 3401 RIGHTS OF WAY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 40-SQUARE						
NET SALVAGE PERCENT.. 0						
1992	651,684.00	431,741	298,887	352,797	13.50	26,133
2017	776,981.32	29,137	20,171	756,811	38.50	19,657
	1,428,665.32	460,878	319,058	1,109,608		45,790
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						24.2 3.21

DUKE ENERGY KENTUCKY

ACCOUNT 3410 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WOODSDALE						
INTERIM SURVIVOR CURVE.. IOWA 60-R4						
PROBABLE RETIREMENT YEAR.. 6-2032						
NET SALVAGE PERCENT.. -5						
1992	33,307,928.01	23,285,939	24,307,690	10,665,634	13.19	808,615
1994	32,271.08	21,935	22,897	10,987	13.26	829
1995	28,624.96	19,165	20,006	10,050	13.28	757
2006	13,755.09	6,949	7,254	7,189	13.46	534
2007	77,734.54	37,588	39,237	42,384	13.46	3,149
2008	28,902.54	13,287	13,870	16,478	13.47	1,223
2011	1,013,820.32	380,542	397,240	667,272	13.48	49,501
2012	201,932.54	68,979	72,006	140,023	13.48	10,387
2013	216,117.23	65,638	68,518	158,405	13.49	11,742
2014	1,026,692.75	269,658	281,490	796,537	13.49	59,046
2015	78,301.70	16,937	17,680	64,537	13.49	4,784
2016	153,786.34	25,247	26,355	135,121	13.49	10,016
2017	266,829.12	28,037	29,267	250,903	13.49	18,599
2018	23,643.54	887	926	23,900	13.50	1,770
	36,470,339.76	24,240,788	25,304,437	12,989,420		980,952
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.2 2.69

DUKE ENERGY KENTUCKY

ACCOUNT 3420 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WOODSDALE						
INTERIM SURVIVOR CURVE.. IOWA 50-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2032						
NET SALVAGE PERCENT.. -5						
1992	14,954,246.53	10,520,626	11,660,648	4,041,311	12.14	332,892
1995	65,235.72	43,989	48,756	19,742	12.38	1,595
1996	83,608.04	55,490	61,503	26,286	12.45	2,111
1999	58,404.03	36,639	40,609	20,715	12.66	1,636
2001	55,528.10	33,264	36,869	21,436	12.79	1,676
2012	407,248.25	140,085	155,265	272,346	13.30	20,477
2014	144,698.20	38,217	42,358	109,575	13.36	8,202
2017	166,943.69	17,611	19,519	155,772	13.43	11,599
	15,935,912.56	10,885,921	12,065,526	4,667,182		380,188
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.3 2.39

DUKE ENERGY KENTUCKY

ACCOUNT 3440 GENERATORS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WOODSDALE						
INTERIM SURVIVOR CURVE.. IOWA 45-S0						
PROBABLE RETIREMENT YEAR.. 6-2032						
NET SALVAGE PERCENT.. -5						
1992	121,602,163.60	82,441,889	83,329,701	44,352,570	11.82	3,752,332
1995	44,071.41	28,739	29,048	17,226	11.96	1,440
1996	75,066.53	48,214	48,733	30,087	12.01	2,505
1999	289,576.93	176,447	178,347	125,709	12.15	10,346
2000	2,221,406.76	1,326,363	1,340,647	991,831	12.19	81,364
2001	12,551,711.26	7,326,108	7,405,002	5,774,294	12.24	471,756
2003	421,505.59	233,581	236,096	206,484	12.33	16,746
2004	13,649.50	7,341	7,420	6,912	12.37	559
2005	10,461,096.18	5,438,473	5,497,040	5,487,111	12.42	441,796
2006	10,833,651.11	5,427,513	5,485,962	5,889,372	12.46	472,662
2007	170,201.58	81,677	82,557	96,155	12.51	7,686
2008	301,113.37	137,613	139,095	177,074	12.56	14,098
2009	15,814,499.03	6,842,016	6,915,697	9,689,527	12.60	769,010
2010	7,960,271.15	3,225,629	3,260,366	5,097,919	12.65	402,998
2011	9,801,985.07	3,680,552	3,720,188	6,571,897	12.70	517,472
2012	8,483,807.09	2,904,987	2,936,271	5,971,727	12.75	468,371
2013	2,798,083.81	854,543	863,746	2,074,242	12.80	162,050
2014	175,950.78	46,564	47,065	137,683	12.85	10,715
2015	254,485.19	55,737	56,337	210,872	12.90	16,347
2017	11,077,059.85	1,187,167	1,199,952	10,430,961	13.02	801,149
2018	1,548,117.36	58,649	59,281	1,566,243	13.09	119,652
	216,899,473.15	121,529,802	122,838,550	104,905,897		8,541,054
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.3 3.94

DUKE ENERGY KENTUCKY

ACCOUNT 3446 GENERATORS - SOLAR

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CRITTENDEN						
INTERIM SURVIVOR CURVE.. IOWA 25-S2.5						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
2017	4,168,275.61	295,996	192,246	4,184,443	20.68	202,343
	4,168,275.61	295,996	192,246	4,184,443		202,343
WALTON						
INTERIM SURVIVOR CURVE.. IOWA 25-S2.5						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
2017	5,747,433.47	408,134	269,653	5,765,152	20.68	278,779
	5,747,433.47	408,134	269,653	5,765,152		278,779
	9,915,709.08	704,130	461,899	9,949,595		481,122
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.7						4.85

DUKE ENERGY KENTUCKY

ACCOUNT 3450 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WOODSDALE						
INTERIM SURVIVOR CURVE.. IOWA 40-R2						
PROBABLE RETIREMENT YEAR.. 6-2032						
NET SALVAGE PERCENT.. -5						
1992	14,118,041.00	9,834,649	9,439,372	5,384,571	11.45	470,268
1996	13,528.24	8,857	8,501	5,704	11.92	479
1999	2,218.96	1,370	1,315	1,015	12.21	83
2000	23,116.79	13,965	13,404	10,869	12.29	884
2001	6,287.18	3,707	3,558	3,044	12.37	246
2002	42,708.77	24,520	23,534	21,310	12.45	1,712
2006	8,616.82	4,321	4,147	4,900	12.70	386
2007	8,047.88	3,858	3,703	4,747	12.76	372
2008	5,782.47	2,636	2,530	3,542	12.81	277
2009	7,263.33	3,129	3,003	4,623	12.85	360
2011	3,017,940.84	1,123,702	1,078,538	2,090,300	12.94	161,538
2012	2,183,025.81	739,342	709,626	1,582,551	12.98	121,922
2013	28,395.09	8,568	8,224	21,591	13.02	1,658
2014	273,443.75	71,282	68,417	218,699	13.05	16,759
2015	381,598.18	81,843	78,554	322,125	13.09	24,608
2016	899,297.00	146,021	140,152	804,110	13.12	61,289
2017	261,347.40	27,085	25,996	248,418	13.15	18,891
2018	227,115.00	8,554	8,210	230,261	13.17	17,484
	21,507,774.51	12,107,409	11,620,785	10,962,378		899,216
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.2 4.18

DUKE ENERGY KENTUCKY

ACCOUNT 3456 ACCESSORY ELECTRIC EQUIPMENT - SOLAR

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CRITTENDEN						
INTERIM SURVIVOR CURVE.. IOWA 20-S2.5						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
2017	425,603.19	34,499	18,087	428,796	17.93	23,915
	425,603.19	34,499	18,087	428,796		23,915
WALTON						
INTERIM SURVIVOR CURVE.. IOWA 20-S2.5						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
2017	631,334.26	51,176	27,569	635,332	17.93	35,434
	631,334.26	51,176	27,569	635,332		35,434
	1,056,937.45	85,675	45,656	1,064,128		59,349
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.9 5.62

DUKE ENERGY KENTUCKY

ACCOUNT 3460 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WOODSDALE						
INTERIM SURVIVOR CURVE.. IOWA 40-R1.5						
PROBABLE RETIREMENT YEAR.. 6-2032						
NET SALVAGE PERCENT.. -5						
1978	328.64	260	281	64	9.51	7
1980	79.14	61	66	17	9.86	2
1983	295.20	223	241	69	10.35	7
1985	45.98	34	37	12	10.65	1
1990	3,120.43	2,191	2,365	912	11.31	81
1991	7,513.55	5,209	5,622	2,268	11.43	198
1992	2,257,362.05	1,544,632	1,666,957	703,273	11.54	60,942
1993	34,369.04	23,195	25,032	11,056	11.64	950
1994	100,337.16	66,714	71,997	33,357	11.74	2,841
1995	4,753.17	3,111	3,357	1,633	11.84	138
1996	2,433.34	1,566	1,690	865	11.93	73
1997	2,275.15	1,439	1,553	836	12.01	70
1998	10,984.58	6,813	7,353	4,181	12.09	346
1999	442,562.37	268,805	290,093	174,598	12.17	14,347
2000	104,739.76	62,225	67,153	42,824	12.24	3,499
2001	339,750.08	197,119	212,730	144,008	12.30	11,708
2002	6,606.83	3,732	4,028	2,910	12.37	235
2003	8,642.89	4,741	5,116	3,959	12.43	319
2006	55,668.70	27,478	29,654	28,798	12.58	2,289
2007	124,222.33	58,621	63,263	67,170	12.63	5,318
2008	97,485.48	43,782	47,249	55,111	12.67	4,350
2009	44,814.03	19,003	20,508	26,547	12.71	2,089
2010	32,464.25	12,877	13,897	20,191	12.75	1,584
2011	304,314.34	111,609	120,448	199,082	12.78	15,578
2012	10,342.52	3,450	3,723	7,136	12.82	557
2013	107,732.99	32,049	34,587	78,533	12.85	6,112
2014	226,212.63	58,091	62,691	174,832	12.88	13,574
2015	111,410.90	23,585	25,453	91,529	12.91	7,090
2016	279,438.43	44,771	48,317	245,094	12.94	18,941
2017	17,072.66	1,747	1,885	16,041	12.97	1,237
2018	51,798.17	1,899	2,049	52,339	12.99	4,029
	4,789,176.79	2,631,032	2,839,393	2,189,243		178,512

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.3 3.73

DUKE ENERGY KENTUCKY

ACCOUNT 3501 RIGHTS OF WAY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R4						
NET SALVAGE PERCENT.. 0						
1950	1,695.10	1,429	1,695			
1956	2,703.51	2,148	2,582	122	14.38	8
1957	363.17	285	343	20	15.02	1
1958	79,809.09	61,943	74,472	5,337	15.67	341
1959	1,962.52	1,505	1,809	154	16.33	9
1960	2,355.33	1,783	2,144	211	17.01	12
1961	50,047.85	37,393	44,956	5,092	17.70	288
1962	235.12	173	208	27	18.39	1
1963	22,089.15	16,062	19,311	2,778	19.10	145
1965	75,275.56	53,187	63,945	11,331	20.54	552
1966	3,845.27	2,676	3,217	628	21.28	30
1967	86,314.17	59,150	71,114	15,200	22.03	690
1968	4,755.68	3,208	3,857	899	22.78	39
1969	1,091.55	724	870	222	23.55	9
1970	46.30	30	36	10	24.33	
1971	8,895.38	5,703	6,857	2,038	25.12	81
1972	25,173.18	15,848	19,054	6,119	25.93	236
1973	34,776.92	21,492	25,839	8,938	26.74	334
1974	26,321.38	15,958	19,186	7,135	27.56	259
1975	1,578.60	938	1,128	451	28.39	16
1976	14,597.75	8,502	10,222	4,376	29.23	150
1977	275.20	157	189	86	30.09	3
1981	85,664.62	44,558	53,570	32,095	33.59	955
1983	346,750.92	171,444	206,121	140,630	35.39	3,974
1988	18,297.90	7,839	9,425	8,873	40.01	222
1989	7,057.21	2,929	3,521	3,536	40.95	86
1992	3,991.58	1,493	1,795	2,197	43.81	50
2006	124,268.34	22,120	26,594	97,674	57.54	1,697
2011	0.14		0			
	1,030,238.49	560,677	674,060	356,178		10,188

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 35.0 0.99

DUKE ENERGY KENTUCKY

ACCOUNT 3520 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. -10						
1955	48,873.53	40,329	27,363	26,398	16.24	1,625
1958	49,503.38	39,600	26,868	27,586	17.73	1,556
1960	71,981.46	56,278	38,184	40,996	18.80	2,181
1965	1,230.56	902	612	742	21.67	34
1967	2,611.13	1,860	1,262	1,610	22.90	70
1968	1,911.98	1,342	911	1,192	23.53	51
1971	2,028.33	1,357	921	1,310	25.48	51
1976	146,306.73	89,307	60,593	100,344	28.93	3,469
1993	21,996.24	8,521	5,781	18,415	42.11	437
2006	124,869.08	24,449	16,588	120,768	53.43	2,260
2007	419,838.40	75,808	51,435	410,387	54.33	7,554
2012	351,875.96	36,264	24,605	362,459	58.91	6,153
2013	222,849.40	19,459	13,203	231,931	59.84	3,876
2016	14,537.12	581	394	15,597	62.64	249
	1,480,413.30	396,057	268,720	1,359,735		29,566
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						46.0 2.00

DUKE ENERGY KENTUCKY

ACCOUNT 3530 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R2						
NET SALVAGE PERCENT.. -15						
1943	3,293.63	3,426	3,712	76	4.78	16
1951	9,826.78	9,685	10,494	807	7.15	113
1955	2,189.30	2,093	2,268	250	8.43	30
1956	1,851.20	1,755	1,902	227	8.77	26
1958	295,584.96	275,541	298,552	41,371	9.47	4,369
1960	36,455.14	33,363	36,149	5,774	10.21	566
1961	2,469.79	2,239	2,426	414	10.59	39
1965	196,086.84	170,297	184,519	40,981	12.24	3,348
1966	2,963.34	2,544	2,756	652	12.68	51
1967	328.00	278	301	76	13.13	6
1968	3,968.30	3,322	3,599	965	13.60	71
1971	47,835.24	38,441	41,651	13,360	15.06	887
1973	43,511.89	33,936	36,770	13,269	16.09	825
1974	405.33	311	337	129	16.63	8
1975	2,643.23	1,996	2,163	877	17.17	51
1976	337,022.79	250,142	271,032	116,544	17.73	6,573
1978	1,802.57	1,290	1,398	675	18.88	36
1979	4,367.57	3,066	3,322	1,701	19.48	87
1982	41,891.16	27,633	29,941	18,234	21.32	855
1983	297,904.01	192,124	208,168	134,422	21.96	6,121
1985	68,343.54	42,033	45,543	33,052	23.26	1,421
1986	16,570.42	9,936	10,766	8,290	23.93	346
1991	143,913.25	74,806	81,053	84,447	27.40	3,082
1992	850,876.82	428,000	463,743	514,765	28.13	18,300
1995	507,033.94	229,154	248,291	334,798	30.35	11,031
1996	3,883.17	1,688	1,829	2,637	31.10	85
1998	103,358.56	41,269	44,715	74,147	32.64	2,272
1999	17,894.19	6,824	7,394	13,184	33.42	394
2000	729,754.52	265,025	287,157	552,061	34.21	16,137
2002	746,962.85	243,786	264,145	594,862	35.81	16,612
2003	1,507,393.44	463,885	502,624	1,230,878	36.62	33,612
2005	448,512.09	121,107	131,221	384,568	38.26	10,051
2006	390,458.68	97,978	106,160	342,867	39.09	8,771
2007	3,290,475.00	762,107	825,751	2,958,295	39.93	74,087
2009	11,679.10	2,248	2,436	10,995	41.63	264
2011	144,883.15	22,160	24,011	142,605	43.35	3,290
2012	666,914.68	88,660	96,064	670,888	44.22	15,172
2013	528,670.94	59,703	64,689	543,283	45.09	12,049
2014	1,319,749.91	122,328	132,544	1,385,168	45.97	30,132

DUKE ENERGY KENTUCKY

ACCOUNT 3530 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R2						
NET SALVAGE PERCENT.. -15						
2015	3,384,776.81	244,449	264,863	3,627,630	46.86	77,414
2016	90,306.23	4,673	5,063	98,789	47.75	2,069
2017	1,345,147.15	41,767	45,255	1,501,664	48.65	30,867
	17,649,959.51	4,427,068	4,796,777	15,500,677		391,536
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						39.6 2.22

DUKE ENERGY KENTUCKY

ACCOUNT 3531 STATION EQUIPMENT - STEP UP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R2.5						
NET SALVAGE PERCENT.. 0						
1992	8,405,252.90	3,889,951	3,774,513	4,630,740	26.86	172,403
1996	968,381.08	386,965	375,481	592,900	30.02	19,750
2017	73,031.10	2,059	1,998	71,033	48.59	1,462
	9,446,665.08	4,278,975	4,151,992	5,294,673		193,615
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						27.3 2.05

DUKE ENERGY KENTUCKY

ACCOUNT 3532 STATION EQUIPMENT - MAJOR

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. -10						
1950	10,834.19	9,349	11,420	498	14.01	36
1954	222,862.54	185,710	226,854	18,295	15.76	1,161
1958	261,300.93	209,028	255,338	32,093	17.73	1,810
1965	65,041.15	47,694	58,261	13,284	21.67	613
1971	4,093.09	2,737	3,343	1,159	25.48	45
1973	11,683.92	7,545	9,217	3,635	26.84	135
1976	40,615.59	24,792	30,285	14,392	28.93	497
1978	26,247.29	15,382	18,790	10,082	30.37	332
1983	111,783.06	58,453	71,403	51,558	34.10	1,512
1985	122,679.77	60,934	74,434	60,514	35.65	1,697
1992	34,444.03	13,826	16,889	20,999	41.28	509
2000	264,762.57	75,722	92,498	198,741	48.10	4,132
2001	125,472.82	34,039	41,580	96,440	48.97	1,969
2002	780,656.67	200,151	244,494	614,228	49.85	12,322
2003	1,011,825.94	244,172	298,268	814,741	50.74	16,057
2005	219,078.16	46,233	56,476	184,510	52.53	3,512
2006	134,369.73	26,310	32,139	115,668	53.43	2,165
2007	1,788,006.76	322,851	394,379	1,572,428	54.33	28,942
2011	82,257.49	9,759	11,921	78,562	57.99	1,355
2014	61,020.46	4,368	5,336	61,787	60.77	1,017
2015	447,333.73	24,908	30,426	461,641	61.71	7,481
	5,826,369.89	1,623,963	1,983,751	4,425,256		87,299
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						50.7 1.50

DUKE ENERGY KENTUCKY

ACCOUNT 3534 STATION EQUIPMENT - STEP UP EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-R2.5						
NET SALVAGE PERCENT.. 0						
1992	1,218,688.02	761,851	498,204	720,484	13.12	54,915
2012	5,838,602.22	1,004,240	656,711	5,181,891	28.98	178,809
	7,057,290.24	1,766,091	1,154,915	5,902,375		233,724
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 25.3						3.31

DUKE ENERGY KENTUCKY

ACCOUNT 3550 POLES AND FIXTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1.5						
NET SALVAGE PERCENT.. -25						
1946	11.95	12	15			
1949	188.79	185	236			
1955	2,132.91	1,986	2,666			
1956	1,211.65	1,117	1,515			
1958	58,440.56	52,809	73,051			
1959	10,120.34	9,048	12,650			
1960	6,560.37	5,800	8,200			
1961	75,304.17	65,822	94,130			
1962	617.69	534	772			
1963	8,644.65	7,377	10,806			
1964	151,441.09	127,623	187,976	1,325	17.92	74
1965	38,572.63	32,085	47,258	958	18.40	52
1966	12,917.74	10,604	15,619	528	18.88	28
1967	6,370.24	5,157	7,596	367	19.38	19
1968	172.95	138	203	13	19.89	1
1969	20,950.94	16,470	24,259	1,930	20.41	95
1970	5,391.71	4,175	6,149	591	20.93	28
1971	110,445.40	84,165	123,967	14,090	21.47	656
1972	23,958.02	17,958	26,450	3,498	22.02	159
1973	149,698.22	110,335	162,512	24,611	22.57	1,090
1974	221,528.51	160,456	236,335	40,576	23.13	1,754
1975	32,294.54	22,973	33,837	6,531	23.70	276
1976	89,853.36	62,713	92,370	19,947	24.29	821
1977	9,351.54	6,402	9,429	2,260	24.88	91
1978	3,226.63	2,166	3,190	843	25.47	33
1979	23,953.72	15,744	23,189	6,753	26.08	259
1980	23,517.99	15,132	22,288	7,109	26.69	266
1981	201,617.15	126,835	186,815	65,206	27.32	2,387
1982	9,552.41	5,873	8,650	3,291	27.95	118
1983	465,807.21	279,589	411,807	170,452	28.59	5,962
1984	13,696.33	8,022	11,816	5,304	29.23	181
1985	57,425.89	32,772	48,270	23,512	29.89	787
1986	9,305.68	5,171	7,616	4,016	30.55	131
1987	35,705.50	19,306	28,436	16,196	31.21	519
1988	357,860.17	187,957	276,842	170,483	31.89	5,346
1989	42,349.92	21,589	31,798	21,139	32.57	649
1990	64,278.15	31,759	46,778	33,570	33.26	1,009
1991	78,881.67	37,738	55,584	43,018	33.95	1,267
1992	222,284.57	102,807	151,424	126,432	34.65	3,649
1993	103,548.84	46,220	68,077	61,359	35.36	1,735
1994	82,285.68	35,401	52,142	50,715	36.07	1,406
1995	251,112.28	103,926	153,073	160,817	36.79	4,371
1996	60,944.39	24,225	35,681	40,499	37.51	1,080

DUKE ENERGY KENTUCKY

ACCOUNT 3550 POLES AND FIXTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1.5						
NET SALVAGE PERCENT.. -25						
1997	161,512.37	61,522	90,616	111,274	38.24	2,910
1998	46,675.33	16,994	25,030	33,314	38.98	855
1999	92,968.08	32,306	47,584	68,626	39.71	1,728
2000	38,071.84	12,581	18,531	29,059	40.46	718
2001	12,097.42	3,791	5,584	9,538	41.21	231
2002	50,479.02	14,960	22,035	41,064	41.96	979
2003	201,329.38	56,189	82,761	168,901	42.72	3,954
2004	629,404.52	164,786	242,713	544,043	43.48	12,512
2005	247,472.05	60,519	89,138	220,202	44.24	4,977
2006	63,338.81	14,381	21,182	57,992	45.01	1,288
2007	679,936.90	142,319	209,621	640,300	45.79	13,983
2008	157,419.04	30,160	44,423	152,351	46.57	3,271
2009	126,497.20	21,993	32,393	125,728	47.35	2,655
2010	387,293.43	60,384	88,939	395,178	48.14	8,209
2011	119,564.93	16,494	24,294	125,162	48.93	2,558
2012	292,800.93	35,136	51,752	314,249	49.72	6,320
2013	124,219.76	12,647	18,628	136,647	50.52	2,705
2014	257,561.98	21,484	31,644	290,308	51.33	5,656
2015	369,345.08	24,007	35,360	426,321	52.14	8,176
2016	167,022.01	7,781	11,461	197,317	52.95	3,726
2017	891,485.18	24,917	36,700	1,077,656	53.77	20,042
2018	406,959.49	3,790	5,582	503,118	54.59	9,216
	8,666,988.90	2,747,317	4,037,448	6,796,288		152,968
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						44.4 1.76

DUKE ENERGY KENTUCKY

ACCOUNT 3560 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1						
NET SALVAGE PERCENT.. -15						
1925	280.14	290	322			
1949	1,293.58	1,115	1,488			
1955	3,174.60	2,570	3,651			
1957	86.61	69	100			
1958	111,810.29	87,389	128,582			
1959	7,404.07	5,717	8,515			
1960	17,541.17	13,376	20,172			
1961	81,711.20	61,507	93,968			
1962	868.93	645	999			
1963	11,575.31	8,481	13,312			
1964	239,968.79	173,405	275,964			
1965	69,418.67	49,452	79,831			
1966	20,350.38	14,284	23,403			
1967	7,397.04	5,113	8,507			
1968	92.24	63	106			
1969	29,121.97	19,503	33,490			
1970	1,109.10	731	1,275			
1971	79,375.36	51,416	90,283	999	24.02	42
1972	9,561.42	6,086	10,687	309	24.56	13
1973	134,218.00	83,911	147,342	7,009	25.10	279
1974	169,991.60	104,321	183,181	12,309	25.65	480
1975	21,566.92	12,987	22,804	1,998	26.20	76
1976	102,691.51	60,615	106,436	11,659	26.77	436
1977	22,958.18	13,283	23,324	3,078	27.33	113
1979	6,773.92	3,755	6,594	1,196	28.49	42
1980	11,081.80	6,008	10,550	2,194	29.07	75
1981	232,145.82	122,952	215,896	51,072	29.67	1,721
1983	599,822.48	302,634	531,405	158,391	30.87	5,131
1985	37,203.41	17,814	31,280	11,504	32.10	358
1986	3,438.51	1,602	2,813	1,141	32.72	35
1987	601.20	272	478	213	33.34	6
1988	411,271.36	180,842	317,547	155,415	33.97	4,575
1990	66,623.64	27,512	48,309	28,308	35.25	803
1991	60,376.06	24,112	42,339	27,093	35.90	755
1992	331,091.44	127,724	224,275	156,480	36.55	4,281
1993	51,429.93	19,141	33,610	25,534	37.20	686
1994	6,558.39	2,350	4,126	3,416	37.86	90
1995	227,830.32	78,507	137,853	124,152	38.52	3,223
1996	71,059.45	23,490	41,247	40,471	39.19	1,033
1997	107,612.68	34,066	59,818	63,937	39.86	1,604
1998	2,370.50	717	1,259	1,467	40.53	36
1999	115,323.43	33,252	58,388	74,234	41.21	1,801
2000	72,507.89	19,891	34,927	48,457	41.88	1,157

DUKE ENERGY KENTUCKY

ACCOUNT 3560 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1						
NET SALVAGE PERCENT.. -15						
2001	34,962.87	9,087	15,956	24,251	42.57	570
2002	39,365.05	9,671	16,982	28,288	43.25	654
2003	195,380.43	45,182	79,337	145,350	43.94	3,308
2004	304,122.13	65,944	115,793	233,947	44.63	5,242
2005	48,616.30	9,840	17,278	38,631	45.32	852
2006	68,382.99	12,854	22,571	56,069	46.01	1,219
2007	815,753.51	141,402	248,293	689,824	46.71	14,768
2008	29,479.85	4,678	8,214	25,688	47.41	542
2009	14,549.92	2,093	3,675	13,057	48.12	271
2010	223,994.43	28,897	50,742	206,852	48.83	4,236
2011	116,312.28	13,278	23,315	110,444	49.54	2,229
2012	156,420.97	15,535	27,279	152,605	50.25	3,037
2013	70,454.07	5,936	10,423	70,599	50.97	1,385
2014	35,912.52	2,478	4,351	36,948	51.70	715
2015	30,527.76	1,647	2,892	32,215	52.42	615
2016	85,264.44	3,299	5,793	92,261	53.15	1,736
2017	76,229.08	1,769	3,106	84,557	53.89	1,569
2018	331,418.92	2,565	4,504	376,627	54.63	6,894
	6,235,836.83	2,179,125	3,740,960	3,430,252		78,693

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 43.6 1.26

DUKE ENERGY KENTUCKY

ACCOUNT 3561 OVERHEAD CONDUCTORS AND DEVICES - CLEARING AND RIGHT OF WAY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. 0						
2007	4,273.99	794	524	3,750	48.85	77
2008	678.77	115	76	603	49.80	12
2009	6,650.00	1,025	676	5,974	50.75	118
2010	8,002.00	1,106	730	7,272	51.71	141
2011	17,292.00	2,110	1,392	15,900	52.68	302
2012	44,728.00	4,741	3,129	41,599	53.64	776
2013	18,513.00	1,660	1,095	17,418	54.62	319
2014	35,273.00	2,593	1,711	33,562	55.59	604
2015	36,833.00	2,112	1,394	35,439	56.56	627
2016	40,997.56	1,681	1,109	39,889	57.54	693
2017	319,570.27	7,884	5,203	314,367	58.52	5,372
2018	48,225.37	394	260	47,965	59.51	806
	581,036.96	26,215	17,299	563,738		9,847

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 57.2 1.69

DUKE ENERGY KENTUCKY

ACCOUNT 3601 RIGHTS OF WAY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R4						
NET SALVAGE PERCENT.. 0						
1937	21,090.83	19,262	21,091			
1938	4,555.53	4,141	4,556			
1939	566.88	513	567			
1940	3,030.65	2,728	3,031			
1941	1,573.96	1,410	1,574			
1942	5,164.10	4,600	5,164			
1943	4,897.52	4,338	4,898			
1944	462.34	407	462			
1945	330.67	289	331			
1946	781.58	679	782			
1947	1,799.58	1,554	1,800			
1948	3,349.38	2,870	3,349			
1949	8,676.40	7,377	8,676			
1950	1,737.77	1,465	1,738			
1951	8,346.55	6,978	8,347			
1952	12,726.87	10,543	12,727			
1953	2,603.56	2,136	2,604			
1954	9,502.50	7,717	9,502			
1955	4,760.79	3,825	4,761			
1956	14,044.62	11,159	14,045			
1957	13,905.05	10,921	13,905			
1958	14,105.17	10,948	14,105			
1959	11,597.81	8,892	11,598			
1960	17,228.28	13,042	17,228			
1961	35,962.20	26,869	35,962			
1962	30,065.96	22,167	30,066			
1963	23,589.95	17,153	23,590			
1964	21,297.85	15,271	21,298			
1965	47,056.95	33,249	47,057			
1966	28,568.21	19,883	28,255	313	21.28	15
1967	37,661.09	25,809	36,677	984	22.03	45
1968	34,610.71	23,347	33,178	1,433	22.78	63
1969	31,018.91	20,583	29,250	1,769	23.55	75
1970	47,115.95	30,740	43,684	3,432	24.33	141
1971	45,736.43	29,323	41,670	4,066	25.12	162
1972	67,572.03	42,541	60,454	7,118	25.93	275
1973	78,177.44	48,314	68,658	9,519	26.74	356
1974	140,806.04	85,369	121,317	19,489	27.56	707
1975	61,888.66	36,788	52,279	9,610	28.39	338
1976	75,551.33	44,003	62,532	13,019	29.23	445
1977	52,602.82	29,991	42,620	9,983	30.09	332
1978	62,310.29	34,760	49,397	12,913	30.95	417
1979	71,128.25	38,795	55,131	15,997	31.82	503

DUKE ENERGY KENTUCKY

ACCOUNT 3601 RIGHTS OF WAY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R4						
NET SALVAGE PERCENT.. 0						
1980	120,456.92	64,187	91,215	29,242	32.70	894
1981	123,971.39	64,482	91,634	32,337	33.59	963
1982	114,830.29	58,268	82,804	32,026	34.48	929
1983	238,309.31	117,827	167,442	70,867	35.39	2,002
1984	140,617.91	67,698	96,205	44,413	36.30	1,223
1985	222,229.32	104,068	147,889	74,340	37.22	1,997
1986	226,881.50	103,263	146,745	80,136	38.14	2,101
1987	374,182.90	165,336	234,957	139,226	39.07	3,564
1988	162,262.39	69,518	98,791	63,471	40.01	1,586
1989	273,358.16	113,444	161,214	112,144	40.95	2,739
1990	238,355.78	95,683	135,974	102,382	41.90	2,443
1991	284,100.23	110,149	156,531	127,569	42.86	2,976
1992	206,935.37	77,423	110,024	96,911	43.81	2,212
1993	166,625.11	60,033	85,312	81,313	44.78	1,816
1994	142,883.92	49,519	70,371	72,513	45.74	1,585
1995	178,950.56	59,539	84,610	94,341	46.71	2,020
1996	66,778.64	21,293	30,259	36,520	47.68	766
2000	18,278.20	4,805	6,828	11,450	51.60	222
2017	19,994.03	428	608	19,386	68.50	283
2018	4,241.02	30	43	4,198	69.50	60
	4,483,802.41	2,169,742	3,049,372	1,434,431		36,255
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						39.6 0.81

DUKE ENERGY KENTUCKY

ACCOUNT 3610 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. -10						
1939	28,162.98	26,113	4,856	26,123	10.21	2,559
1942	1,442.09	1,315	245	1,341	11.11	121
1946	489.50	435	81	457	12.46	37
1953	87.01	73	14	82	15.30	5
1955	712.42	588	109	675	16.24	42
1964	2,437.39	1,812	337	2,344	21.07	111
1969	2,537.77	1,754	326	2,466	24.17	102
1974	89,989.01	57,063	10,612	88,376	27.53	3,210
1975	92.07	57	11	90	28.22	3
2007	9,895.03	1,787	332	10,553	54.33	194
2008	139,083.74	22,972	4,272	148,720	55.24	2,692
2010	17,274.85	2,318	431	18,571	57.07	325
2011	6,025.99	715	133	6,496	57.99	112
2013	50,295.06	4,392	817	54,508	59.84	911
2014	688,781.68	49,309	9,171	748,489	60.77	12,317
2015	374,535.69	20,855	3,879	408,110	61.71	6,613
2016	1,220.48	49	9	1,334	62.64	21
2018	5,706.47	45	8	6,269	64.53	97
	1,418,769.23	191,652	35,643	1,525,003		29,472
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						51.7 2.08

DUKE ENERGY KENTUCKY

ACCOUNT 3620 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-R1.5						
NET SALVAGE PERCENT.. -10						
1966	50,268.26	44,305	29,203	26,092	7.95	3,282
1967	50,676.50	44,205	29,138	26,606	8.28	3,213
1969	97,702.62	83,372	54,954	52,519	8.97	5,855
1970	46,286.32	39,039	25,732	25,183	9.33	2,699
1971	128,236.89	106,853	70,432	70,629	9.70	7,281
1972	29,958.25	24,650	16,248	16,706	10.08	1,657
1973	17,984.57	14,605	9,627	10,156	10.47	970
1974	211,137.61	169,079	111,448	120,803	10.88	11,103
1975	982.45	775	511	570	11.30	50
1976	495,340.61	385,090	253,830	291,045	11.73	24,812
1977	19,413.10	14,857	9,793	11,561	12.17	950
1979	52,134.14	38,566	25,421	31,927	13.10	2,437
1980	198,169.43	143,980	94,904	123,082	13.58	9,063
1981	122,422.19	87,296	57,541	77,123	14.07	5,481
1982	329,184.82	230,117	151,680	210,423	14.58	14,432
1983	423,118.28	289,730	190,974	274,456	15.10	18,176
1984	304,376.76	203,902	134,401	200,413	15.64	12,814
1985	10,842.97	7,100	4,680	7,247	16.19	448
1986	9,853.93	6,300	4,153	6,686	16.75	399
1987	104,939.08	65,451	43,142	72,291	17.32	4,174
1988	802,786.57	487,894	321,593	561,472	17.90	31,367
1990	63,749.26	36,622	24,139	45,985	19.11	2,406
1991	1,304,049.96	727,269	479,376	955,079	19.72	48,432
1992	749,121.48	404,807	266,826	557,208	20.35	27,381
1993	847,978.42	443,302	292,200	640,576	20.99	30,518
1994	3,376.58	1,704	1,123	2,591	21.65	120
1995	703,274.93	342,126	225,511	548,091	22.31	24,567
1996	73,195.14	34,259	22,582	57,933	22.98	2,521
1997	226,089.02	101,593	66,964	181,734	23.66	7,681
1998	15,883.21	6,836	4,506	12,966	24.35	532
1999	15,522.93	6,386	4,209	12,866	25.04	514
2000	19,858.45	7,782	5,129	16,715	25.75	649
2001	1,339,684.76	498,832	328,803	1,144,850	26.46	43,267
2002	846,805.20	298,541	196,782	734,704	27.18	27,031
2003	852,516.01	283,440	186,828	750,940	27.91	26,906
2004	1,101,611.42	343,840	226,640	985,133	28.65	34,385
2005	1,826,278.69	532,862	351,233	1,657,674	29.39	56,403
2006	1,270,855.72	344,593	227,137	1,170,804	30.14	38,846
2007	1,005,447.83	251,890	166,032	939,961	30.89	30,429
2008	1,579,397.80	362,669	239,051	1,498,287	31.65	47,339
2009	576,582.95	120,189	79,222	555,019	32.42	17,120
2010	112,539.33	21,076	13,892	109,901	33.19	3,311
2011	237,317.98	39,353	25,939	235,111	33.97	6,921

DUKE ENERGY KENTUCKY

ACCOUNT 3620 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-R1.5						
NET SALVAGE PERCENT.. -10						
2012	2,050,712.22	295,508	194,783	2,061,000	34.76	59,292
2013	2,853,823.80	349,237	230,198	2,909,008	35.55	81,829
2014	3,607,474.71	363,092	239,330	3,728,892	36.34	102,611
2015	1,129,266.41	88,506	58,338	1,183,855	37.15	31,867
2016	2,801,435.44	157,931	104,100	2,977,479	37.95	78,458
2017	3,361,474.64	113,702	74,946	3,622,676	38.77	93,440
2018	7,981,689.67	89,994	59,320	8,720,539	39.59	220,271
	42,062,829.31	9,155,107	6,034,544	40,234,569		1,305,710
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						30.8 3.10

DUKE ENERGY KENTUCKY

ACCOUNT 3622 STATION EQUIPMENT - MAJOR

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. -10						
1955	100,164.11	82,652	110,181			
1958	14,414.37	11,531	15,856			
1960	40,318.83	31,523	44,351			
1962	55,641.28	42,458	60,189	1,016	19.91	51
1963	10,431.35	7,859	11,141	333	20.48	16
1964	121,289.95	90,171	127,827	5,592	21.07	265
1966	270,347.76	195,449	277,069	20,314	22.28	912
1967	15,812.04	11,265	15,969	1,424	22.90	62
1969	98,484.53	68,049	96,467	11,866	24.17	491
1970	9,366.59	6,369	9,029	1,274	24.82	51
1971	197,034.12	131,776	186,806	29,932	25.48	1,175
1972	36,687.24	24,114	34,184	6,172	26.16	236
1973	37,552.07	24,251	34,378	6,929	26.84	258
1974	136,571.00	86,600	122,765	27,463	27.53	998
1976	605,863.16	369,826	524,267	142,182	28.93	4,915
1977	396,237.94	237,109	336,127	99,735	29.64	3,365
1979	196,503.71	112,733	159,811	56,343	31.10	1,812
1980	374,456.65	210,132	297,884	114,018	31.84	3,581
1981	150,376.13	82,479	116,923	48,491	32.59	1,488
1982	353,461.57	189,380	268,466	120,342	33.34	3,610
1983	682,230.76	356,751	505,732	244,722	34.10	7,177
1984	401,128.70	204,533	289,947	151,295	34.87	4,339
1986	41,970.00	20,285	28,756	17,411	36.44	478
1987	38,565.91	18,124	25,693	16,730	37.23	449
1988	83,800.96	38,263	54,242	37,939	38.02	998
1989	101,133.92	44,790	63,495	47,752	38.83	1,230
1990	34,368.83	14,750	20,910	16,896	39.64	426
1991	1,100,145.56	456,884	647,681	562,479	40.46	13,902
1992	377,796.58	151,652	214,983	200,593	41.28	4,859
1993	939,635.95	363,982	515,983	517,617	42.11	12,292
1995	202,678.25	72,750	103,131	119,815	43.79	2,736
2000	1,228,111.88	351,240	497,919	853,004	48.10	17,734
2001	3,468,305.07	940,889	1,333,808	2,481,328	48.97	50,670
2002	509,919.85	130,737	185,333	375,579	49.85	7,534
2003	643,994.24	155,407	220,306	488,088	50.74	9,619
2004	948,700.00	214,652	304,292	739,278	51.63	14,319
2005	1,161,829.09	245,187	347,578	930,434	52.53	17,712
2006	1,457,748.51	285,427	404,623	1,198,900	53.43	22,439
2007	1,360,135.34	245,593	348,154	1,147,995	54.33	21,130
2008	2,385,236.08	393,958	558,477	2,065,283	55.24	37,387
2009	904,783.53	135,505	192,092	803,170	56.15	14,304
2010	2,036,293.53	273,271	387,390	1,852,533	57.07	32,461

DUKE ENERGY KENTUCKY

ACCOUNT 3622 STATION EQUIPMENT - MAJOR

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. -10						
2014	900,058.89	64,433	91,341	898,724	60.77	14,789
2015	896,309.88	49,908	70,750	915,191	61.71	14,831
2018	3,630,897.45	28,877	40,936	3,953,052	64.53	61,259
	28,756,793.16	7,273,574	10,303,242	21,329,231		408,360
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						52.2 1.42

DUKE ENERGY KENTUCKY

ACCOUNT 3640 POLES, TOWERS AND FIXTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 54-R0.5						
NET SALVAGE PERCENT.. -40						
1915	25.45	34	36			
1917	21.03	28	29			
1918	21.10	28	30			
1919	20.30	26	28			
1920	4.26	5	6			
1921	35.81	46	50			
1922	39.73	50	56			
1923	36.32	45	51			
1924	83.08	103	116			
1925	734.78	902	1,029			
1926	480.50	585	673			
1927	548.64	661	768			
1928	909.56	1,087	1,273			
1929	1,196.00	1,417	1,674			
1930	1,869.44	2,195	2,617			
1931	6,663.42	7,755	9,329			
1932	4,687.11	5,406	6,562			
1933	8,338.49	9,534	11,674			
1934	8,831.25	10,005	12,364			
1935	7,593.79	8,525	10,631			
1936	2,262.66	2,517	3,168			
1937	8,452.52	9,316	11,834			
1938	8,439.96	9,216	11,816			
1939	6,970.89	7,540	9,759			
1940	12,667.05	13,570	17,734			
1941	9,770.29	10,365	13,678			
1942	15,301.55	16,075	21,422			
1943	3,035.80	3,157	4,250			
1944	5,231.48	5,386	7,324			
1945	10,711.31	10,914	14,996			
1946	8,237.59	8,306	11,533			
1947	21,805.94	21,749	30,528			
1948	17,907.76	17,670	25,071			
1949	32,150.40	31,374	45,011			
1950	45,969.38	44,359	64,357			
1951	49,699.61	47,404	69,579			
1952	69,845.28	65,840	97,783			
1953	65,719.88	61,219	92,008			
1954	70,094.61	64,495	98,132			
1955	92,138.96	83,726	128,995			
1956	76,221.01	68,393	106,709			
1957	91,059.06	80,644	127,483			
1958	96,621.07	84,443	135,269			

DUKE ENERGY KENTUCKY

ACCOUNT 3640 POLES, TOWERS AND FIXTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 54-R0.5						
NET SALVAGE PERCENT.. -40						
1959	105,792.49	91,225	148,109			
1960	89,574.59	76,172	125,404			
1961	143,674.54	120,463	201,144			
1962	104,319.67	86,196	145,386	662	22.13	30
1963	98,558.95	80,234	135,330	2,653	22.60	117
1964	169,391.17	135,788	229,032	8,116	23.08	352
1965	166,215.83	131,174	221,250	11,452	23.56	486
1966	146,738.06	113,976	192,242	13,191	24.04	549
1967	153,786.33	117,498	198,183	17,118	24.53	698
1968	195,788.85	147,104	248,119	25,985	25.02	1,039
1969	205,521.62	151,752	255,959	31,771	25.52	1,245
1970	245,322.34	177,959	300,162	43,289	26.02	1,664
1971	254,354.64	181,214	305,652	50,444	26.52	1,902
1972	335,146.27	234,340	395,259	73,946	27.03	2,736
1973	427,523.90	293,168	494,484	104,049	27.55	3,777
1974	294,557.38	198,095	334,125	78,255	28.06	2,789
1975	259,894.89	171,215	288,787	75,066	28.59	2,626
1976	276,565.31	178,468	301,020	86,171	29.11	2,960
1977	439,285.97	277,433	467,944	147,056	29.64	4,961
1978	453,300.03	279,937	472,167	162,453	30.18	5,383
1979	595,259.64	359,271	605,979	227,384	30.72	7,402
1980	892,994.41	526,468	887,989	362,203	31.26	11,587
1981	758,989.27	436,648	736,490	326,095	31.81	10,251
1982	675,754.64	379,123	639,464	306,592	32.36	9,474
1983	696,960.75	381,087	642,776	332,969	32.91	10,118
1984	626,040.69	333,220	562,039	314,418	33.47	9,394
1985	721,837.56	373,720	630,350	380,223	34.03	11,173
1986	786,641.93	395,851	667,679	433,620	34.59	12,536
1987	1,117,545.82	545,861	920,699	643,865	35.16	18,312
1988	754,778.37	357,510	603,009	453,681	35.73	12,697
1989	1,749,753.87	802,948	1,354,326	1,095,329	36.30	30,174
1990	1,026,282.53	455,522	768,325	668,471	36.88	18,126
1991	1,414,002.02	606,709	1,023,331	956,272	37.45	25,535
1992	1,699,314.46	703,149	1,185,995	1,193,045	38.04	31,363
1993	1,806,575.26	720,343	1,214,996	1,314,209	38.62	34,029
1994	1,889,374.43	724,949	1,222,765	1,422,359	39.20	36,285
1995	1,701,973.02	627,024	1,057,596	1,325,166	39.79	33,304
1996	1,421,779.52	502,042	846,790	1,143,701	40.38	28,323
1997	1,202,474.27	406,220	685,168	998,296	40.97	24,367
1998	1,493,862.79	481,798	812,645	1,278,763	41.56	30,769
1999	1,333,247.46	409,259	690,294	1,176,252	42.16	27,900
2000	1,030,615.49	300,591	507,004	935,858	42.75	21,891
2001	694,839.15	191,851	323,593	649,182	43.35	14,975

DUKE ENERGY KENTUCKY

ACCOUNT 3640 POLES, TOWERS AND FIXTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 54-R0.5						
NET SALVAGE PERCENT.. -40						
2002	112,031.99	29,190	49,235	107,610	43.95	2,448
2003	855,635.57	209,631	353,583	844,307	44.55	18,952
2004	753,019.17	172,777	291,421	762,806	45.15	16,895
2005	1,259,651.15	269,429	454,444	1,309,068	45.75	28,614
2006	1,633,756.67	324,036	546,549	1,740,710	46.35	37,556
2007	1,236,018.42	225,924	381,064	1,349,362	46.95	28,740
2009	1,673,307.09	253,355	427,332	1,915,298	48.16	39,769
2010	1,232,739.34	167,147	281,925	1,443,910	48.77	29,607
2011	721,177.23	86,385	145,705	863,943	49.38	17,496
2012	2,457,688.07	255,511	430,968	3,009,795	49.99	60,208
2013	2,482,637.60	218,830	369,099	3,106,594	50.60	61,395
2014	2,625,044.31	189,192	319,108	3,355,954	51.22	65,520
2015	4,135,446.79	232,685	392,468	5,397,158	51.83	104,132
2016	3,520,046.01	141,435	238,557	4,689,507	52.45	89,409
2017	4,187,192.78	100,945	170,263	5,691,807	53.07	107,251
2018	3,293,716.82	26,468	44,644	4,566,560	53.69	85,054
	63,697,773.31	17,983,630	30,152,860	59,024,023		1,296,345
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						45.5 2.04

DUKE ENERGY KENTUCKY

ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 52-01						
NET SALVAGE PERCENT.. -40						
1925	122,668.36	154,397	171,736			
1926	2.68	3	4			
1927	24.02	30	34			
1932	150.42	175	211			
1938	16,751.71	18,153	23,452			
1939	9,068.00	9,704	12,695			
1940	468.50	495	656			
1941	10,755.79	11,221	15,058			
1942	9,390.69	9,671	13,147			
1943	5,398.73	5,487	7,558			
1944	739.99	742	1,036			
1945	3,787.35	3,747	5,302			
1946	9,612.35	9,381	13,457			
1947	27,127.39	26,110	37,978			
1948	15,508.43	14,718	21,712			
1949	32,872.51	30,755	45,638	384	17.25	22
1950	78,025.06	71,948	106,764	2,471	17.75	139
1951	52,573.84	47,772	70,889	2,714	18.25	149
1952	102,684.20	91,922	136,404	7,354	18.75	392
1953	41,501.21	36,593	54,301	3,801	19.25	197
1954	97,966.81	85,061	126,223	10,931	19.75	553
1955	81,114.07	69,337	102,890	10,670	20.25	527
1956	83,842.65	70,541	104,676	12,704	20.75	612
1957	82,002.11	67,889	100,741	14,062	21.25	662
1958	93,723.27	76,330	113,267	17,946	21.75	825
1959	74,239.94	59,464	88,239	15,697	22.25	705
1960	94,169.82	74,159	110,045	21,793	22.75	958
1961	181,627.20	140,585	208,615	45,663	23.25	1,964
1962	177,321.93	134,867	200,130	48,121	23.75	2,026
1963	198,084.77	147,991	219,605	57,714	24.25	2,380
1964	275,014.67	201,766	299,402	85,619	24.75	3,459
1965	266,035.08	191,595	284,309	88,140	25.25	3,491
1966	295,506.51	208,844	309,905	103,804	25.75	4,031
1967	211,496.41	146,623	217,575	78,520	26.25	2,991
1968	242,340.52	164,746	244,468	94,809	26.75	3,544
1969	214,517.59	142,943	212,114	88,211	27.25	3,237
1970	428,037.81	279,462	414,696	184,557	27.75	6,651
1971	426,836.26	272,928	405,000	192,571	28.25	6,817
1972	368,787.32	230,849	342,559	173,743	28.75	6,043
1973	661,453.96	405,141	601,192	324,844	29.25	11,106
1974	565,321.23	338,646	502,519	288,931	29.75	9,712
1975	441,108.79	258,304	383,299	234,253	30.25	7,744
1976	361,507.81	206,822	306,905	199,206	30.75	6,478

DUKE ENERGY KENTUCKY

ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 52-01						
NET SALVAGE PERCENT.. -40						
1977	330,136.18	184,433	273,682	188,509	31.25	6,032
1978	308,832.70	168,372	249,849	182,517	31.75	5,749
1979	669,723.21	356,115	528,442	409,170	32.25	12,687
1980	852,160.65	441,646	655,362	537,663	32.75	16,417
1981	480,576.26	242,601	359,998	312,809	33.25	9,408
1982	619,624.03	304,449	451,774	415,700	33.75	12,317
1983	1,002,233.29	478,957	710,728	692,399	34.25	20,216
1984	627,297.77	291,331	432,308	445,909	34.75	12,832
1985	902,793.63	407,131	604,145	659,766	35.25	18,717
1986	936,553.51	409,742	608,019	703,156	35.75	19,669
1987	1,257,549.34	533,241	791,281	969,288	36.25	26,739
1988	786,049.56	322,735	478,909	621,560	36.75	16,913
1989	2,261,707.56	898,147	1,332,767	1,833,624	37.25	49,225
1990	1,340,646.97	514,347	763,244	1,113,662	37.75	29,501
1991	2,082,510.55	770,920	1,143,974	1,771,541	38.25	46,315
1992	2,113,947.88	754,117	1,119,040	1,840,487	38.75	47,496
1993	2,005,037.81	688,261	1,021,316	1,785,737	39.25	45,496
1994	3,390,058.68	1,118,082	1,659,131	3,086,951	39.75	77,659
1995	2,036,517.31	644,240	955,993	1,895,131	40.25	47,084
1996	1,382,690.25	418,803	621,465	1,314,301	40.75	32,253
1997	1,057,713.97	306,126	454,263	1,026,537	41.25	24,886
1998	2,105,305.09	580,997	862,146	2,085,281	41.75	49,947
1999	1,950,543.13	512,018	759,788	1,970,972	42.25	46,650
2000	4,912,207.99	1,223,297	1,815,260	5,061,831	42.75	118,405
2001	2,267,743.73	534,231	792,750	2,382,091	43.25	55,077
2002	439,490.46	97,615	144,852	470,435	43.75	10,753
2003	5,513,440.18	1,150,412	1,707,105	6,011,711	44.25	135,858
2004	5,342,142.86	1,042,722	1,547,303	5,931,697	44.75	132,552
2005	3,184,736.77	578,775	858,849	3,599,782	45.25	79,553
2006	6,354,037.44	1,069,168	1,586,547	7,309,105	45.75	159,762
2007	3,855,307.59	596,848	885,667	4,511,764	46.25	97,552
2008	1,946,683.13	275,152	408,300	2,317,056	46.75	49,563
2009	3,614,364.28	462,241	685,923	4,374,187	47.25	92,575
2010	6,242,645.02	714,296	1,059,949	7,679,754	47.75	160,833
2011	1,275,422.35	128,777	191,093	1,594,498	48.25	33,047
2012	10,612,077.40	928,557	1,377,893	13,479,015	48.75	276,493
2013	6,202,137.37	459,157	681,347	8,001,645	49.25	162,470
2014	3,555,326.22	215,375	319,597	4,657,860	49.75	93,625
2015	7,234,006.48	340,794	505,707	9,621,902	50.25	191,481

DUKE ENERGY KENTUCKY

ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 52-01						
NET SALVAGE PERCENT.. -40						
2016	4,852,325.30	163,310	242,337	6,550,918	50.75	129,082
2017	5,290,747.30	106,810	158,496	7,248,550	51.25	141,435
2018	4,884,862.66	32,895	48,813	6,789,995	51.75	131,208
	124,541,081.62	25,985,160	38,491,818	135,865,696		3,012,947
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						45.1 2.42

DUKE ENERGY KENTUCKY

ACCOUNT 3651 OVERHEAD CONDUCTORS AND DEVICES - CLEARING AND RIGHT OF WAY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R2.5						
NET SALVAGE PERCENT.. 0						
2017	4,136,475.58	97,910	179,620	3,956,856	58.58	67,546
2018	672,517.07	5,266	9,660	662,857	59.53	11,135
	4,808,992.65	103,176	189,280	4,619,712		78,681
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 58.7						1.64

DUKE ENERGY KENTUCKY

ACCOUNT 3660 UNDERGROUND CONDUIT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -20						
1911	87.78	101	105			
1916	485.21	550	582			
1920	107.89	120	129			
1923	4,600.63	5,075	5,521			
1924	69.88	77	84			
1926	627.21	684	753			
1927	1,655.81	1,797	1,987			
1928	225.88	244	271			
1929	6,899.26	7,425	8,279			
1930	191.04	205	229			
1931	10,480.21	11,180	12,576			
1932	2,752.42	2,923	3,303			
1933	223.64	236	268			
1934	32.95	35	40			
1935	1,454.82	1,523	1,746			
1937	91.15	94	109			
1938	22,663.10	23,346	27,196			
1939	0.78	1	1			
1940	45,118.29	45,936	54,142			
1941	9,023.01	9,131	10,774	54	10.97	5
1942	2,012.29	2,023	2,387	28	11.35	2
1943	1,886.09	1,884	2,223	40	11.74	3
1944	264.14	262	309	8	12.15	1
1945	957.14	942	1,112	37	12.56	3
1946	0.54	1	1			
1947	2,242.00	2,174	2,565	125	13.43	9
1948	133.82	129	152	9	13.89	1
1949	12,487.46	11,911	14,055	930	14.36	65
1950	18,901.94	17,874	21,091	1,591	14.84	107
1951	5,094.82	4,774	5,633	481	15.34	31
1952	11,382.94	10,567	12,469	1,191	15.85	75
1953	3,203.66	2,945	3,475	369	16.37	23
1954	3,653.91	3,325	3,923	462	16.91	27
1955	23,290.77	20,978	24,753	3,196	17.46	183
1956	8,664.80	7,720	9,109	1,289	18.03	71
1957	6,178.98	5,445	6,425	990	18.60	53
1958	9,329.93	8,127	9,590	1,606	19.19	84
1959	3,624.24	3,120	3,681	668	19.79	34
1960	1,111.02	944	1,114	219	20.41	11
1961	18,692.66	15,692	18,516	3,915	21.03	186
1962	11,414.31	9,457	11,159	2,538	21.67	117
1963	79,324.67	64,837	76,506	18,684	22.32	837
1964	5,417.76	4,367	5,153	1,348	22.98	59

DUKE ENERGY KENTUCKY

ACCOUNT 3660 UNDERGROUND CONDUIT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -20						
1965	13,766.80	10,939	12,908	3,612	23.65	153
1966	996.37	780	920	276	24.33	11
1967	8,379.88	6,462	7,625	2,431	25.02	97
1968	135.93	103	122	41	25.72	2
1969	22,624.38	16,899	19,940	7,209	26.43	273
1970	35,326.60	25,956	30,627	11,765	27.14	433
1971	84,658.29	61,143	72,147	29,443	27.87	1,056
1972	21,580.99	15,313	18,069	7,828	28.61	274
1973	119,484.48	83,263	98,248	45,133	29.35	1,538
1974	76,485.28	52,303	61,716	30,066	30.11	999
1975	205,826.61	138,068	162,916	84,076	30.87	2,724
1976	177,286.25	116,583	137,564	75,180	31.64	2,376
1977	33,239.15	21,414	25,268	14,619	32.42	451
1978	6,252.64	3,944	4,654	2,849	33.20	86
1979	3,632.11	2,242	2,645	1,714	33.99	50
1980	128,299.12	77,441	91,378	62,581	34.79	1,799
1982	39,433.05	22,700	26,785	20,535	36.42	564
1983	17,547.67	9,855	11,629	9,428	37.24	253
1984	100,104.04	54,794	64,655	55,470	38.07	1,457
1985	5,999.14	3,197	3,772	3,427	38.91	88
1986	52,861.44	27,412	32,345	31,089	39.75	782
1987	17,194.91	8,666	10,226	10,408	40.60	256
1988	129,230.14	63,226	74,605	80,471	41.46	1,941
1989	177,328.87	84,145	99,288	113,507	42.32	2,682
1990	166,666.71	76,600	90,385	109,615	43.19	2,538
1991	58,775.53	26,127	30,829	39,702	44.07	901
1992	621,011.37	266,682	314,676	430,538	44.95	9,578
1993	834,002.65	345,417	407,581	593,222	45.84	12,941
1994	1,060,179.58	422,923	499,035	773,180	46.73	16,546
1995	825,728.35	316,654	373,641	617,233	47.63	12,959
1996	777,921.57	286,185	337,689	595,817	48.54	12,275
1997	883,029.11	311,077	367,061	692,574	49.45	14,006
1998	834,199.20	280,862	331,408	669,631	50.36	13,297
1999	1,789,291.02	573,912	677,197	1,469,952	51.29	28,660
2000	401,552.69	122,461	144,500	337,363	52.21	6,462
2001	152,193.84	43,989	51,906	130,727	53.14	2,460
2002	79,292.96	21,640	25,534	69,618	54.08	1,287
2003	3,049,949.76	783,227	924,182	2,735,758	55.02	49,723
2004	233,387.88	56,173	66,282	213,783	55.96	3,820
2005	376,153.81	84,409	99,600	351,785	56.91	6,181
2006	507,179.54	105,552	124,548	484,067	57.86	8,366
2007	525,880.64	100,881	119,036	512,021	58.81	8,706
2008	277,268.51	48,624	57,375	275,347	59.77	4,607

DUKE ENERGY KENTUCKY

ACCOUNT 3660 UNDERGROUND CONDUIT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -20						
2009	312,145.30	49,605	58,532	316,042	60.73	5,204
2010	309,535.77	44,042	51,968	319,475	61.70	5,178
2011	308,132.64	38,717	45,685	324,074	62.67	5,171
2012	436,973.08	47,644	56,218	468,150	63.64	7,356
2013	288,664.62	26,673	31,473	314,925	64.61	4,874
2014	747,009.41	56,474	66,638	829,773	65.59	12,651
2015	583,039.66	34,381	40,569	659,079	66.56	9,902
2016	271,983.94	11,469	13,533	312,848	67.54	4,632
2017	2,721,513.90	69,039	81,464	3,184,353	68.52	46,473
2018	1,700,713.40	14,286	16,857	2,024,000	69.51	29,118
	22,947,111.43	5,882,754	6,938,950	20,597,584		368,204
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						55.9 1.60

DUKE ENERGY KENTUCKY

ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 58-R2						
NET SALVAGE PERCENT.. -40						
1916	1.02	1	1			
1922	0.65	1	1			
1923	46.45	61	52	13	3.26	4
1926	23.19	30	25	7	4.11	2
1927	12.72	16	14	4	4.40	1
1929	235.82	302	256	74	4.98	15
1931	133.77	169	143	44	5.56	8
1932	35.36	45	38	12	5.85	2
1933	41.01	51	43	14	6.14	2
1935	29.18	36	31	10	6.73	1
1937	63.86	78	66	23	7.32	3
1938	3,864.28	4,699	3,986	1,424	7.62	187
1939	228.03	276	234	85	7.92	11
1940	20,964.87	25,186	21,367	7,984	8.23	970
1941	289.29	345	293	112	8.54	13
1942	118.67	141	120	46	8.85	5
1943	87.13	103	87	35	9.17	4
1945	226.81	264	224	94	9.83	10
1947	1,254.50	1,438	1,220	536	10.52	51
1949	5,068.60	5,722	4,854	2,242	11.23	200
1950	14,903.62	16,692	14,161	6,704	11.60	578
1951	2,875.07	3,194	2,710	1,315	11.98	110
1952	603.15	664	563	281	12.36	23
1953	1,220.89	1,333	1,131	578	12.76	45
1954	3,306.74	3,578	3,035	1,594	13.17	121
1955	54,424.81	58,354	49,505	26,690	13.58	1,965
1956	11,340.54	12,042	10,216	5,661	14.01	404
1957	5,493.06	5,776	4,900	2,790	14.44	193
1958	1,625.07	1,691	1,435	840	14.89	56
1959	10,911.15	11,236	9,532	5,744	15.34	374
1960	6,886.11	7,013	5,950	3,691	15.81	233
1961	10,431.11	10,504	8,911	5,693	16.28	350
1962	5,674.71	5,647	4,791	3,154	16.77	188
1963	49,248.42	48,418	41,076	27,872	17.27	1,614
1964	26,959.19	26,179	22,209	15,534	17.77	874
1965	20,878.52	20,013	16,978	12,252	18.29	670
1966	9,439.34	8,927	7,573	5,642	18.82	300
1967	13,027.41	12,154	10,311	7,927	19.35	410
1968	10,600.75	9,749	8,271	6,570	19.90	330
1969	16,827.16	15,248	12,936	10,622	20.46	519
1970	69,059.09	61,627	52,282	44,401	21.03	2,111
1971	77,169.68	67,803	57,521	50,517	21.60	2,339
1972	74,430.83	64,336	54,580	49,623	22.19	2,236

DUKE ENERGY KENTUCKY

ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 58-R2						
NET SALVAGE PERCENT.. -40						
1973	324,366.58	275,679	233,875	220,238	22.79	9,664
1974	192,591.80	160,893	136,495	133,134	23.39	5,692
1975	166,580.61	136,670	115,945	117,268	24.01	4,884
1976	497,959.51	401,094	340,272	356,871	24.63	14,489
1977	427,799.48	337,976	286,726	312,193	25.27	12,354
1978	206,437.17	159,905	135,657	153,355	25.91	5,919
1979	570,914.73	433,266	367,566	431,715	26.56	16,254
1980	419,533.35	311,699	264,433	322,914	27.22	11,863
1981	246,083.14	178,852	151,731	192,785	27.89	6,912
1982	246,454.54	175,075	148,527	196,509	28.57	6,878
1983	404,437.82	280,666	238,106	328,107	29.25	11,217
1984	639,933.87	433,279	367,577	528,330	29.95	17,640
1985	504,231.66	332,879	282,401	423,523	30.65	13,818
1986	590,782.37	379,893	322,286	504,809	31.36	16,097
1987	1,183,463.98	740,446	628,165	1,028,685	32.08	32,066
1988	933,963.99	568,104	481,957	825,593	32.80	25,171
1989	1,239,566.50	732,162	621,138	1,114,255	33.53	33,232
1990	1,176,335.65	673,800	571,626	1,075,244	34.27	31,376
1991	1,016,803.67	564,015	478,488	945,037	35.02	26,986
1992	1,009,707.16	541,546	459,426	954,164	35.78	26,668
1993	1,608,478.24	833,192	706,847	1,545,023	36.54	42,283
1994	1,059,365.69	529,056	448,830	1,034,282	37.31	27,721
1995	720,730.37	346,549	293,999	715,024	38.08	18,777
1996	664,332.41	306,922	260,381	669,684	38.86	17,233
1997	1,091,677.94	483,539	410,216	1,118,133	39.65	28,200
1998	729,347.68	308,971	262,119	758,968	40.45	18,763
1999	2,248,929.38	909,256	771,377	2,377,124	41.25	57,627
2000	2,610,494.96	1,004,419	852,110	2,802,583	42.06	66,633
2001	1,966,588.34	718,206	609,298	2,143,926	42.87	50,010
2002	574,390.25	198,399	168,314	635,832	43.69	14,553
2003	2,471,810.50	804,263	682,305	2,778,230	44.52	62,404
2004	1,726,707.08	527,233	447,284	1,970,106	45.35	43,442
2005	3,984,462.89	1,135,843	963,604	4,614,644	46.19	99,906
2006	2,803,955.38	742,476	629,888	3,295,650	47.03	70,075
2007	2,159,591.48	527,528	447,534	2,575,894	47.88	53,799
2008	1,747,536.12	391,032	331,736	2,114,815	48.73	43,399
2009	2,748,355.37	557,916	473,314	3,374,384	49.59	68,046
2010	1,895,462.42	344,974	292,662	2,360,985	50.46	46,789
2011	441,624.30	71,207	60,409	557,865	51.32	10,870
2012	3,016,216.69	422,270	358,237	3,864,466	52.20	74,032
2013	702,214.96	83,396	70,750	912,351	53.08	17,188
2014	1,233,387.88	120,285	102,045	1,624,698	53.96	30,109
2015	1,766,800.02	134,337	113,966	2,359,554	54.85	43,018

DUKE ENERGY KENTUCKY

ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 58-R2						
NET SALVAGE PERCENT.. -40						
2016	1,746,460.43	94,843	80,461	2,364,584	55.75	42,414
2017	4,562,756.25	149,795	127,081	6,260,778	56.64	110,536
2018	4,046,466.69	43,961	37,295	5,627,758	57.55	97,789
	62,856,152.93	20,118,909	17,068,091	70,930,523		1,602,328
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						44.3 2.55

DUKE ENERGY KENTUCKY

ACCOUNT 3680 LINE TRANSFORMERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 46-R0.5						
NET SALVAGE PERCENT.. -15						
1910	932.51	1,072	1,072			
1916	93.03	107	107			
1917	39.04	45	45			
1920	891.01	1,025	1,025			
1921	117.94	136	136			
1922	653.45	751	751			
1923	244.14	281	281			
1925	659.61	759	759			
1926	325.08	374	374			
1927	389.22	445	448			
1928	180.61	204	208			
1929	179.44	201	206			
1930	186.14	206	214			
1932	374.35	406	431			
1933	182.86	196	210			
1935	66.94	70	77			
1936	1,652.19	1,716	1,900			
1937	2,257.12	2,319	2,596			
1938	113.53	115	131			
1939	245.56	247	282			
1940	2,803.90	2,793	3,224			
1941	2,149.01	2,118	2,471			
1942	330.34	322	380			
1945	605.41	573	696			
1946	501.68	469	577			
1947	2,256.64	2,090	2,595			
1948	1,863.33	1,707	2,143			
1949	3,790.07	3,434	4,359			
1950	7,962.62	7,137	9,157			
1951	16,840.24	14,925	19,366			
1952	10,015.41	8,776	11,518			
1953	5,752.68	4,983	6,616			
1954	25,280.51	21,640	29,073			
1955	37,264.69	31,526	42,854			
1956	47,542.76	39,734	54,674			
1957	10,942.66	9,033	12,584			
1958	32,737.77	26,681	37,648			
1959	44,951.28	36,174	51,694			
1960	38,312.27	30,429	44,059			
1961	53,818.54	42,167	61,891			
1962	46,317.73	35,792	53,265			
1963	60,441.09	46,056	69,507			
1964	147,280.42	110,607	169,372			

DUKE ENERGY KENTUCKY

ACCOUNT 3680 LINE TRANSFORMERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 46-R0.5						
NET SALVAGE PERCENT.. -15						
1965	107,962.14	79,892	122,843	1,313	16.40	80
1966	178,161.08	129,836	199,637	5,248	16.85	311
1967	150,161.35	107,740	165,662	7,024	17.30	406
1968	214,712.17	151,640	233,163	13,756	17.75	775
1969	293,845.45	204,149	313,902	24,020	18.21	1,319
1970	414,650.66	283,205	435,459	41,389	18.68	2,216
1971	451,676.54	303,190	466,188	53,240	19.15	2,780
1972	490,257.72	323,326	497,149	66,647	19.62	3,397
1973	582,080.67	376,895	579,518	89,875	20.10	4,471
1974	663,198.89	421,296	647,789	114,890	20.59	5,580
1975	395,471.98	246,379	378,835	75,958	21.08	3,603
1976	324,332.90	198,087	304,581	68,402	21.57	3,171
1977	479,759.34	287,017	441,320	110,403	22.07	5,002
1978	627,950.46	367,824	565,570	156,573	22.57	6,937
1979	598,866.13	343,150	527,631	161,065	23.08	6,979
1980	646,805.49	362,214	556,944	186,882	23.60	7,919
1981	826,206.16	451,933	694,897	255,240	24.12	10,582
1982	573,523.88	306,263	470,913	188,639	24.64	7,656
1983	1,051,742.59	547,700	842,149	367,355	25.17	14,595
1984	948,772.22	481,268	740,002	351,086	25.71	13,656
1985	1,039,061.48	513,039	788,854	406,067	26.25	15,469
1986	1,043,616.38	501,198	770,647	429,512	26.79	16,033
1987	1,132,056.72	528,102	812,015	489,850	27.34	17,917
1988	1,977,729.88	895,427	1,376,817	897,572	27.89	32,183
1989	1,937,947.92	850,271	1,307,385	921,255	28.45	32,382
1990	1,919,797.77	815,439	1,253,827	953,940	29.01	32,883
1991	1,894,795.06	778,279	1,196,690	982,324	29.57	33,220
1992	1,415,620.82	561,289	863,044	764,920	30.14	25,379
1993	1,882,018.46	719,399	1,106,155	1,058,166	30.71	34,457
1994	2,387,325.29	877,932	1,349,917	1,395,507	31.29	44,599
1995	1,301,671.83	460,139	707,514	789,409	31.86	24,777
1996	1,181,441.94	400,505	615,820	742,838	32.44	22,899
1997	1,836,762.30	595,578	915,767	1,196,510	33.03	36,225
1998	1,511,711.70	468,256	719,995	1,018,473	33.61	30,303
1999	1,427,231.95	421,031	647,381	993,936	34.20	29,062
2000	1,247,769.30	349,694	537,693	897,242	34.79	25,790
2001	497,473.74	132,080	203,088	369,007	35.38	10,430
2002	617,116.53	154,590	237,699	471,985	35.98	13,118
2003	1,160,159.64	273,508	420,549	913,635	36.57	24,983
2004	1,377,649.12	304,122	467,621	1,116,675	37.17	30,042
2005	923,967.09	190,103	292,304	770,258	37.77	20,393
2006	1,139,052.53	217,275	334,084	975,826	38.37	25,432
2007	1,801,205.98	316,570	486,761	1,584,626	38.97	40,663

DUKE ENERGY KENTUCKY

ACCOUNT 3680 LINE TRANSFORMERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 46-R0.5						
NET SALVAGE PERCENT.. -15						
2008	858,324.68	137,973	212,149	774,924	39.57	19,584
2009	848,121.43	123,400	189,741	785,599	40.18	19,552
2010	1,532,849.06	200,040	307,584	1,455,192	40.78	35,684
2011	21,850.89	2,518	3,872	21,257	41.39	514
2012	853,017.70	85,305	131,166	849,804	42.00	20,233
2013	475,483.48	40,300	61,966	484,840	42.61	11,379
2014	2,618,017.61	181,938	279,749	2,730,971	43.22	63,188
2015	2,046,534.82	110,521	169,938	2,183,577	43.84	49,808
2016	3,407,927.81	132,074	203,078	3,716,039	44.45	83,600
2017	3,054,371.60	71,023	109,206	3,403,321	45.07	75,512
2018	3,546,050.62	27,485	42,261	4,035,697	45.69	88,328
	62,545,415.77	18,899,248	29,007,465	42,919,763		1,187,456
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						36.1 1.90

DUKE ENERGY KENTUCKY

ACCOUNT 3682 LINE TRANSFORMERS - CUSTOMER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1.5						
NET SALVAGE PERCENT.. -15						
1937	1.04	1	1			
1938	2.53	2	3			
1940	0.01					
1941	0.95	1	1			
1942	10.94	10	13			
1943	2.50	2	3			
1945	1,765.26	1,642	2,030			
1946	3,329.42	3,076	3,829			
1947	2,300.29	2,109	2,645			
1948	401.17	365	461			
1949	3,857.31	3,482	4,436			
1950	416.26	373	479			
1951	5,955.07	5,288	6,848			
1952	49.28	43	57			
1953	1,452.54	1,268	1,670			
1954	1,558.30	1,348	1,792			
1955	581.76	498	669			
1956	26,953.32	22,870	30,996			
1957	2,433.12	2,044	2,798			
1958	213.84	178	246			
1959	2,698.35	2,220	3,103			
1961	5,229.50	4,205	6,014			
1962	3,983.11	3,166	4,581			
1963	14,251.40	11,189	16,389			
1964	4,392.70	3,406	5,037	15	17.92	1
1965	5,116.30	3,915	5,790	94	18.40	5
1966	6,770.22	5,113	7,562	224	18.88	12
1967	2,140.86	1,594	2,357	105	19.38	5
1968	26,876.44	19,730	29,179	1,729	19.89	87
1969	25,290.78	18,291	27,051	2,033	20.41	100
1970	4,780.28	3,405	5,036	461	20.93	22
1971	21,630.59	15,165	22,428	2,447	21.47	114
1972	4,522.23	3,118	4,611	590	22.02	27
1973	6,132.94	4,159	6,151	902	22.57	40
1974	2,241.30	1,494	2,210	367	23.13	16
1975	5,212.61	3,411	5,045	950	23.70	40
1976	23,132.60	14,854	21,968	4,634	24.29	191
1977	7,355.35	4,632	6,850	1,609	24.88	65
1978	16,190.89	9,997	14,785	3,835	25.47	151
1984	5,955.63	3,209	4,746	2,103	29.23	72

DUKE ENERGY KENTUCKY

ACCOUNT 3682 LINE TRANSFORMERS - CUSTOMER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1.5						
NET SALVAGE PERCENT.. -15						
1986	6,576.87	3,362	4,972	2,591	30.55	85
1989	1,093.01	513	759	498	32.57	15
1990	20,801.65	9,456	13,985	9,937	33.26	299
	273,660.52	194,204	279,586	35,124		1,347
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						26.1 0.49

DUKE ENERGY KENTUCKY

ACCOUNT 3691 SERVICES - UNDERGROUND

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. -25						
1937	2,102.97	2,238	2,629			
1938	285.12	302	356			
1940	41.87	44	52			
1941	61.27	64	77			
1942	79.40	82	99			
1943	40.05	41	50			
1944	7.99	8	10			
1945	55.14	56	69			
1946	113.01	114	141			
1947	1.37	1	2			
1948	33.10	33	41			
1949	711.04	703	889			
1950	2,722.18	2,669	3,403			
1951	963.92	937	1,205			
1952	161.30	156	202			
1953	2,097.44	2,005	2,622			
1954	2.40	2	3			
1955	5,689.00	5,335	7,111			
1956	5,252.42	4,877	6,566			
1957	1,742.85	1,601	2,179			
1958	4,390.81	3,991	5,489			
1959	2,216.13	1,992	2,770			
1960	1,748.05	1,553	2,185			
1961	4,994.94	4,385	6,244			
1962	4,051.53	3,513	5,064			
1963	9,823.23	8,410	12,279			
1964	7,489.85	6,328	9,362			
1965	5,003.84	4,170	6,255			
1966	10,814.74	8,885	13,518			
1967	8,596.12	6,960	10,745			
1968	6,368.32	5,079	7,960			
1969	16,508.14	12,962	20,635			
1970	11,077.59	8,560	13,847			
1971	3,470.46	2,638	4,338			
1972	627.60	469	784			
1973	775.11	569	969			
1975	482.08	341	581	22	28.22	1
1976	528.32	366	624	36	28.93	1
1977	870.14	592	1,009	79	29.64	3
1987	2,059.61	1,100	1,874	701	37.23	19
1999	1,265.67	433	738	844	47.22	18
2003	312,396.30	85,667	145,946	244,549	50.74	4,820
2004	269.07	69	118	218	51.63	4

DUKE ENERGY KENTUCKY

ACCOUNT 3691 SERVICES - UNDERGROUND

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. -25						
2005	115.00	28	48	96	52.53	2
2006	740.20	165	281	644	53.43	12
2007	309.48	64	109	278	54.33	5
2008	132.00	25	43	122	55.24	2
2009	1,078.83	184	313	1,036	56.15	18
2014	1,979,667.46	161,046	274,365	2,200,219	60.77	36,206
2015	19,759.66	1,250	2,129	22,571	61.71	366
2017	7,792.76	213	363	9,378	63.58	147
2018	10,261.31	93	159	12,668	64.53	196
	2,457,848.19	353,368	578,850	2,493,460		41,820
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						59.6 1.70

DUKE ENERGY KENTUCKY

ACCOUNT 3692 SERVICES - OVERHEAD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1						
NET SALVAGE PERCENT.. -30						
1925	15,662.52	18,355	20,361			
1938	539.25	578	701			
1939	1,189.33	1,266	1,546			
1940	1,249.55	1,319	1,624			
1941	1,451.14	1,519	1,886			
1942	745.46	774	969			
1943	1,032.23	1,063	1,342			
1944	969.78	990	1,261			
1945	1,064.67	1,077	1,384			
1946	2,296.10	2,302	2,985			
1947	3,340.81	3,319	4,343			
1948	4,749.33	4,673	6,174			
1949	5,743.98	5,598	7,467			
1950	6,893.16	6,652	8,961			
1951	6,296.47	6,016	8,185			
1952	9,297.47	8,790	12,087			
1953	8,812.06	8,244	11,456			
1954	9,993.62	9,248	12,992			
1955	515.77	472	671			
1956	19,133.72	17,312	24,874			
1957	27,998.22	25,035	36,398			
1958	34,965.17	30,893	45,455			
1959	41,148.97	35,918	53,494			
1960	48,640.36	41,929	63,232			
1961	51,530.06	43,848	66,989			
1962	49,064.12	41,193	63,783			
1963	48,687.94	40,324	63,294			
1964	50,018.27	40,858	65,024			
1965	56,771.61	45,717	73,803			
1966	62,661.85	49,720	81,460			
1967	75,607.92	59,081	98,290			
1968	65,137.41	50,115	84,679			
1969	85,138.57	64,456	110,680			
1970	85,464.78	63,653	111,104			
1971	110,833.22	81,158	144,083			
1972	114,595.94	82,450	148,975			
1973	109,457.62	77,357	142,295			
1974	156,814.96	108,788	203,859			
1975	156,871.71	106,788	203,933			
1976	151,578.41	101,141	197,052			
1977	167,097.46	109,285	217,227			
1978	199,577.53	127,792	259,054	397	27.91	14
1979	200,218.95	125,457	254,320	5,965	28.49	209

DUKE ENERGY KENTUCKY

ACCOUNT 3692 SERVICES - OVERHEAD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1						
NET SALVAGE PERCENT.. -30						
1980	200,693.36	123,002	249,344	11,557	29.07	398
1981	243,577.48	145,833	295,626	21,025	29.67	709
1982	213,957.12	125,065	253,526	24,618	30.27	813
1983	215,282.40	122,786	248,906	30,961	30.87	1,003
1984	304,426.70	169,241	343,077	52,678	31.48	1,673
1985	249,480.27	135,036	273,739	50,585	32.10	1,576
1986	283,731.48	149,418	302,893	65,958	32.72	2,016
1987	293,605.86	150,316	304,713	76,975	33.34	2,309
1988	262,300.94	130,381	264,302	76,689	33.97	2,258
1989	245,875.63	118,500	240,218	79,420	34.61	2,295
1990	239,749.40	111,919	226,877	84,797	35.25	2,406
1991	227,642.18	102,769	208,328	87,607	35.90	2,440
1992	297,728.94	129,835	263,195	123,853	36.55	3,389
1993	300,809.92	126,560	256,556	134,497	37.20	3,616
1994	278,171.63	112,696	228,452	133,171	37.86	3,517
1995	299,997.94	116,859	236,891	153,106	38.52	3,975
1996	414,209.02	154,784	313,771	224,701	39.19	5,734
1997	285,508.21	102,169	207,112	164,049	39.86	4,116
1998	250,490.26	85,672	173,670	151,967	40.53	3,749
1999	206,338.50	67,256	136,338	131,902	41.21	3,201
2000	510,637.24	158,356	321,012	342,816	41.88	8,186
2001	3,268.64	960	1,946	2,303	42.57	54
2003	926,311.32	242,154	490,883	713,322	43.94	16,234
2004	186,060.37	45,606	92,450	149,428	44.63	3,348
2005	278,240.97	63,662	129,053	232,660	45.32	5,134
2006	549,948.73	116,856	236,885	478,048	46.01	10,390
2007	457,041.78	89,557	181,546	412,608	46.71	8,833
2008	515,498.86	92,480	187,471	482,678	47.41	10,181
2009	619,903.76	100,807	204,351	601,524	48.12	12,500
2010	303,563.94	44,270	89,742	304,891	48.83	6,244
2011	21,022.77	2,713	5,500	21,830	49.54	441
2012	644,834.08	72,394	146,754	691,530	50.25	13,762
2013	1,228,339.90	117,001	237,179	1,359,663	50.97	26,676
2014	110,390.00	8,610	17,454	126,053	51.70	2,438
2015	1,642,242.18	100,149	203,018	1,931,897	52.42	36,854
2016	1,805,168.65	78,944	160,031	2,186,688	53.15	41,142
2017	737,079.23	19,337	39,199	919,004	53.89	17,053
2018	473,143.03	4,140	8,393	606,693	54.63	11,105
	18,577,130.16	5,490,616	10,700,153	13,450,116		281,991

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 47.7 1.52

DUKE ENERGY KENTUCKY

ACCOUNT 3700 METERS AND METERING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 24-L1						
NET SALVAGE PERCENT.. 0						
1920	124.77	125	125			
1921	33.06	33	33			
1922	145.86	146	146			
1923	404.07	404	404			
1924	338.11	338	338			
1925	596.06	596	596			
1926	394.33	394	394			
1927	915.90	916	916			
1928	759.22	759	759			
1929	1,479.22	1,479	1,479			
1930	702.69	703	703			
1931	837.11	837	837			
1933	25.93	26	26			
1934	349.75	350	350			
1935	240.77	241	241			
1936	899.50	900	900			
1937	1,314.85	1,315	1,315			
1938	159.03	159	159			
1939	1,186.84	1,187	1,187			
1940	758.81	759	759			
1941	2,117.78	2,118	2,118			
1942	1,272.97	1,273	1,273			
1943	204.25	204	204			
1944	439.19	430	439			
1945	273.87	267	274			
1946	820.94	793	821			
1947	4,290.12	4,119	4,290			
1948	3,011.68	2,871	3,012			
1949	2,046.72	1,938	2,047			
1950	3,315.40	3,116	3,315			
1951	2,016.80	1,882	2,017			
1952	5,033.04	4,664	5,033			
1953	6,460.57	5,941	6,461			
1954	3,232.01	2,949	3,232			
1955	3,970.37	3,596	3,970			
1956	5,446.56	4,893	5,447			
1957	9,946.36	8,865	9,946			
1958	4,304.20	3,806	4,304			
1959	5,274.94	4,624	5,275			
1960	7,553.30	6,565	7,553			
1961	7,945.98	6,847	7,946			
1962	4,978.36	4,252	4,978			
1963	4,792.59	4,056	4,793			

DUKE ENERGY KENTUCKY

ACCOUNT 3700 METERS AND METERING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 24-L1						
NET SALVAGE PERCENT.. 0						
1964	6,368.92	5,342	6,369			
1965	2,960.09	2,459	2,960			
1966	10,849.70	8,924	10,850			
1967	7,627.65	6,213	7,628			
1968	13,207.19	10,648	13,207			
1969	10,652.48	8,500	10,652			
1970	8,318.27	6,568	8,318			
1971	7,520.29	5,872	7,520			
1972	13,447.79	10,383	13,372	76	5.47	14
1973	13,007.66	9,929	12,787	221	5.68	39
1974	20,241.88	15,266	19,660	582	5.90	99
1975	5,479.59	4,082	5,257	223	6.12	36
1976	3,516.48	2,588	3,333	183	6.34	29
1977	5,671.65	4,121	5,307	365	6.56	56
1978	6,284.81	4,507	5,804	481	6.79	71
1979	8,002.48	5,658	7,287	715	7.03	102
1980	6,914.48	4,823	6,211	703	7.26	97
1981	2,512.39	1,726	2,223	289	7.51	38
1983	1,357.69	905	1,166	192	8.00	24
1984	7,982.51	5,239	6,747	1,236	8.25	150
1985	11,959.11	7,719	9,941	2,018	8.51	237
1986	22,318.93	14,154	18,228	4,091	8.78	466
1987	16,886.92	10,519	13,547	3,340	9.05	369
1988	2,767.31	1,693	2,180	587	9.32	63
1989	8,988.57	5,393	6,945	2,044	9.60	213
1990	20,534.60	12,081	15,558	4,977	9.88	504
1991	31,927.03	18,398	23,694	8,233	10.17	810
1992	12,041.04	6,788	8,742	3,299	10.47	315
1993	10,013.86	5,520	7,109	2,905	10.77	270
1994	15,717.57	8,461	10,896	4,822	11.08	435
1995	12,474.11	6,549	8,434	4,040	11.40	354
1996	2,063.15	1,056	1,360	703	11.72	60
1997	619.42	308	397	222	12.05	18
1998	52,868.67	25,597	32,965	19,904	12.38	1,608
2004	195,452.72	76,797	98,903	96,550	14.57	6,627
2005	268,566.31	101,161	130,280	138,286	14.96	9,244
2006	376,390.40	135,188	174,102	202,288	15.38	13,153
2007	528,934.15	180,277	232,169	296,765	15.82	18,759
2008	441,157.82	141,722	182,517	258,641	16.29	15,877
2009	15,377.89	4,607	5,933	9,445	16.81	562
2011	118,612.40	29,801	38,379	80,233	17.97	4,465
2012	33,378.99	7,483	9,637	23,742	18.62	1,275
2013	17,558.20	3,416	4,399	13,159	19.33	681

DUKE ENERGY KENTUCKY

ACCOUNT 3700 METERS AND METERING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 24-L1						
NET SALVAGE PERCENT.. 0						
2014	334,304.54	54,602	70,319	263,986	20.08	13,147
2015	301,203.49	39,030	50,265	250,938	20.89	12,012
2016	465,629.84	44,039	56,716	408,914	21.73	18,818
2017	227,623.91	13,184	16,979	210,645	22.61	9,316
2018	185,634.00	3,635	4,681	180,953	23.53	7,690
	3,993,342.83	1,174,667	1,492,348	2,500,995		138,103
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.1 3.46

DUKE ENERGY KENTUCKY

ACCOUNT 3702 UoF METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-S2.5						
NET SALVAGE PERCENT.. 0						
2015	208,337.40	48,334	29,067	179,270	11.52	15,562
2016	302,081.27	50,348	30,278	271,803	12.50	21,744
2017	10,698,047.84	1,069,805	643,355	10,054,693	13.50	744,792
2018	11,898,260.67	396,569	238,487	11,659,774	14.50	804,122
	23,106,727.18	1,565,056	941,187	22,165,540		1,586,220
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						14.0 6.86

DUKE ENERGY KENTUCKY

ACCOUNT 3712 COMPANY-OWNED OUTDOOR LIGHTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-R2						
NET SALVAGE PERCENT.. 0						
2008	438.91	327	482-	921	2.54	363
2011	0.01					
2015	115,306.09	34,592	50,975-	166,281	7.00	23,754
2016	159,151.23	34,695	51,127-	210,278	7.82	26,890
2017	28,573.83	3,800	5,600-	34,174	8.67	3,942
2018	9,157.80	412	607-	9,764	9.55	1,022
	312,627.87	73,826	108,791-	421,419		55,971
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					7.5	17.90

DUKE ENERGY KENTUCKY

ACCOUNT 3720 LEASED PROPERTY ON CUSTOMERS' PREMISES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-L3						
NET SALVAGE PERCENT.. 0						
1969	9,647.36	8,879	9,647			
	9,647.36	8,879	9,647			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

DUKE ENERGY KENTUCKY

ACCOUNT 3731 STREET LIGHTING - OVERHEAD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 32-L0.5						
NET SALVAGE PERCENT.. -15						
1910	78.85	80	91			
1925	1,885.21	1,773	2,168			
1927	3.09	3	4			
1938	170.68	152	196			
1939	25.99	23	30			
1940	114.48	101	132			
1941	379.29	333	436			
1942	25.06	22	29			
1943	9.58	8	11			
1944	22.00	19	25			
1945	75.74	65	87			
1946	102.29	88	118			
1947	1,289.01	1,099	1,482			
1948	93.66	79	108			
1949	205.66	173	237			
1950	56.23	47	65			
1951	144.66	120	166			
1952	288.06	238	331			
1953	264.52	217	304			
1954	173.29	141	199			
1955	423.29	343	487			
1956	1,335.84	1,074	1,536			
1957	539.30	430	620			
1958	1,178.70	933	1,356			
1959	4,487.08	3,523	5,160			
1960	7,703.32	5,999	8,859			
1961	18,994.14	14,662	21,843			
1962	20,333.15	15,557	23,383			
1963	20,386.22	15,459	23,444			
1964	16,923.20	12,711	19,462			
1965	46,421.89	34,534	53,385			
1966	39,824.91	29,325	45,799			
1967	25,411.34	18,520	29,223			
1968	12,733.09	9,184	14,643			
1969	49,780.30	35,511	57,247			
1970	49,885.13	35,192	57,368			
1971	48,258.11	33,645	55,497			
1972	36,858.44	25,392	42,387			
1973	42,999.87	29,268	49,450			
1974	17,129.17	11,511	19,699			
1975	20,834.43	13,822	23,960			
1976	9,228.13	6,039	10,612			
1977	13,091.56	8,450	15,055			

DUKE ENERGY KENTUCKY

ACCOUNT 3731 STREET LIGHTING - OVERHEAD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 32-L0.5						
NET SALVAGE PERCENT.. -15						
1978	19,156.52	12,185	22,030			
1979	30,724.37	19,256	35,333			
1980	40,750.37	25,145	46,863			
1981	20,459.10	12,426	23,528			
1982	11,778.09	7,039	13,545			
1983	12,607.57	7,408	14,499			
1984	14,244.10	8,226	16,381			
1985	45,296.09	25,687	52,091			
1986	31,674.18	17,621	36,425			
1987	15,970.30	8,712	18,366			
1988	22,538.99	12,053	25,920			
1989	63,258.56	33,123	72,747			
1990	38,417.50	19,674	43,582	598	17.75	34
1991	13,589.62	6,803	15,070	558	18.07	31
1992	41,628.25	20,361	45,104	2,768	18.39	151
1993	82,530.99	39,358	87,186	7,725	18.73	412
1994	81,517.91	37,909	83,976	9,770	19.06	513
1995	75,857.11	34,322	76,030	11,206	19.41	577
1996	59,652.50	26,240	58,127	10,473	19.76	530
1997	91,922.73	39,278	87,009	18,702	20.11	930
1998	114,903.42	47,570	105,378	26,761	20.48	1,307
1999	145,014.37	58,108	128,722	38,045	20.85	1,825
2000	99,614.52	38,592	85,489	29,068	21.22	1,370
2001	28,286.70	10,562	23,397	9,133	21.61	423
2002	7,009.27	2,519	5,580	2,481	22.00	113
2004	157,564.41	51,868	114,899	66,300	22.84	2,903
2005	54,100.78	16,935	37,515	24,701	23.29	1,061
2006	28,667.94	8,489	18,805	14,163	23.76	596
2007	55,634.27	15,495	34,325	29,654	24.25	1,223
2008	18,187.13	4,726	10,469	10,446	24.77	422
2009	39,669.53	9,537	21,126	24,494	25.31	968
2010	11,636.29	2,559	5,669	7,713	25.88	298
2012	33,725.01	5,927	13,130	25,654	27.11	946
2014	5,366.40	685	1,517	4,654	28.45	164
2015	313,351.24	31,870	70,598	289,756	29.17	9,933
2016	32,176.23	2,405	5,328	31,675	29.92	1,059
2017	33,252.04	1,541	3,414	34,826	30.71	1,134
2018	1,852.50	30	66	2,064	31.55	65
	2,503,754.86	1,088,109	2,145,933	733,385		28,988

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 25.3 1.16

DUKE ENERGY KENTUCKY

ACCOUNT 3732 STREET LIGHTING - BOULEVARD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R1.5						
NET SALVAGE PERCENT.. -20						
1922	269.37	315	323			
1923	3,481.73	4,039	4,178			
1927	1,995.79	2,252	2,395			
1928	1,451.94	1,629	1,742			
1929	3,724.55	4,156	4,469			
1930	53.15	59	64			
1931	1,776.61	1,962	2,132			
1932	602.71	662	723			
1933	354.16	387	425			
1936	53.64	58	64			
1937	147.76	158	177			
1938	290.84	310	349			
1939	63.35	67	76			
1941	1,449.08	1,516	1,739			
1942	26.87	28	32			
1943	283.50	293	340			
1950	171.43	169	206			
1951	1,257.21	1,227	1,509			
1952	114.34	111	137			
1953	0.10					
1954	171.18	163	205			
1955	361.21	341	433			
1956	565.62	530	679			
1958	509.17	468	611			
1959	293.96	268	353			
1960	21.46	19	26			
1961	28.82	26	35			
1962	273.08	241	328			
1963	253.93	222	305			
1965	4,917.77	4,191	5,901			
1970	400.52	319	481			
1972	1,582.16	1,223	1,899			
1973	13,625.05	10,369	16,350			
1974	18,600.26	13,923	22,320			
1975	4,518.21	3,324	5,422			
1976	7,327.42	5,295	8,793			
1977	7,718.76	5,476	9,263			
1978	14,756.10	10,270	17,707			
1979	13,221.08	9,018	15,865			
1980	16,725.73	11,175	20,071			
1981	12,793.42	8,367	15,352			
1982	10,784.55	6,898	12,941			
1983	2,407.97	1,505	2,890			

DUKE ENERGY KENTUCKY

ACCOUNT 3732 STREET LIGHTING - BOULEVARD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R1.5						
NET SALVAGE PERCENT.. -20						
1984	12,877.16	7,856	15,453			
1985	38,093.48	22,664	45,712			
1986	21,062.90	12,213	24,805	470	25.84	18
1987	58,166.39	32,820	66,659	3,141	26.49	119
1988	71,225.22	39,077	79,367	6,103	27.14	225
1989	92,132.51	49,088	99,700	10,859	27.80	391
1990	131,972.23	68,193	138,503	19,864	28.47	698
1991	47,327.02	23,694	48,124	8,668	29.14	297
1992	128,990.98	62,442	126,823	27,966	29.83	938
1993	79,243.85	37,048	75,246	19,847	30.52	650
1994	88,032.37	39,678	80,588	25,051	31.22	802
1995	113,773.50	49,369	100,271	36,257	31.92	1,136
1996	99,521.16	41,488	84,264	35,161	32.63	1,078
1997	145,426.69	58,113	118,030	56,482	33.35	1,694
1998	145,025.04	55,446	112,613	61,417	34.07	1,803
1999	628,139.09	229,145	465,404	288,363	34.80	8,286
2000	135,300.71	46,987	95,433	66,928	35.53	1,884
2001	13,200.25	4,350	8,835	7,005	36.27	193
2002	32,074.31	9,992	20,294	18,195	37.02	491
2004	387,664.12	106,809	216,934	248,263	38.52	6,445
2005	364,108.47	93,678	190,264	246,666	39.28	6,280
2006	200,674.41	47,921	97,330	143,479	40.05	3,582
2007	43,507.72	9,586	19,470	32,739	40.82	802
2008	541.98	109	221	429	41.59	10
2009	55,789.51	10,216	20,749	46,198	42.37	1,090
2010	33,453.09	5,500	11,171	28,973	43.15	671
2012	25,121.11	3,177	6,453	23,692	44.73	530
2017	23,600.45	697	1,415	26,906	48.77	552
2018	1,486.80	15	31	1,754	49.59	35
	3,366,958.08	1,280,400	2,549,472	1,490,878		40,700

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 36.6 1.21

DUKE ENERGY KENTUCKY

ACCOUNT 3733 STREET LIGHTING - CUSTOMER POLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-L0						
NET SALVAGE PERCENT.. -25						
1962	755.64	605	945			
1963	2,782.60	2,206	3,478			
1964	5,748.22	4,508	7,185			
1965	4,665.23	3,619	5,832			
1966	7,777.78	5,966	9,722			
1967	3,479.48	2,637	4,349			
1968	13,702.27	10,265	17,128			
1969	9,039.84	6,689	11,300			
1970	10,509.18	7,676	13,136			
1971	11,268.50	8,127	14,086			
1972	9,421.14	6,705	11,776			
1973	19,731.84	13,853	24,665			
1974	26,908.55	18,623	33,636			
1975	21,885.45	14,928	27,357			
1976	28,100.64	18,886	35,126			
1977	18,884.29	12,495	23,605			
1978	33,299.53	21,686	41,624			
1979	47,010.63	30,126	58,763			
1980	64,740.61	40,787	80,926			
1981	37,233.17	23,053	46,541			
1982	31,008.79	18,864	38,761			
1983	11,307.29	6,751	14,134			
1984	14,332.94	8,391	17,916			
1985	16,882.67	9,693	20,945	158	16.22	10
1986	21,740.07	12,220	26,405	770	16.51	47
1987	18,167.17	9,999	21,606	1,103	16.79	66
1988	17,439.61	9,388	20,286	1,514	17.08	89
1989	22,810.66	11,995	25,919	2,594	17.38	149
1990	50,089.62	25,713	55,560	7,052	17.68	399
1991	58,187.99	29,118	62,918	9,817	17.99	546
1992	57,730.95	28,144	60,813	11,351	18.30	620
1993	53,177.85	25,238	54,534	11,938	18.61	641
1994	47,014.71	21,686	46,859	11,909	18.93	629
1995	57,876.96	25,900	55,965	16,381	19.26	851
1996	49,167.86	21,327	46,083	15,377	19.59	785
1997	65,963.90	27,678	59,806	22,649	19.93	1,136
1998	58,524.66	23,727	51,269	21,887	20.27	1,080
1999	27,323.39	10,679	23,075	11,079	20.62	537
2000	5,610.07	2,108	4,555	2,458	20.98	117
2001	66,321.77	23,931	51,710	31,192	21.34	1,462
2002	74.99	26	56	38	21.70	2
2004	314,329.75	98,751	213,380	179,532	22.46	7,993
2005	50,299.11	14,985	32,380	30,494	22.85	1,335

DUKE ENERGY KENTUCKY

ACCOUNT 3733 STREET LIGHTING - CUSTOMER POLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-L0						
NET SALVAGE PERCENT.. -25						
2006	120,624.10	33,975	73,413	77,367	23.24	3,329
2007	58,341.01	15,436	33,354	39,572	23.65	1,673
2008	85,866.40	21,217	45,846	61,487	24.07	2,555
2009	47,507.23	10,887	23,525	35,859	24.50	1,464
2010	3,892.91	819	1,770	3,096	24.95	124
2012	129,661.74	22,096	47,745	114,332	25.91	4,413
2013	125,758.30	18,707	40,422	116,776	26.43	4,418
2014	39,803.12	5,025	10,858	38,896	26.97	1,442
2015	187,697.27	19,239	41,571	193,051	27.54	7,010
2016	631,779.63	48,434	104,655	685,070	28.16	24,328
2017	190,026.68	9,264	20,017	217,516	28.83	7,545
2018	182,541.92	3,194	6,902	221,275	29.58	7,481
	3,295,827.68	928,045	1,926,193	2,193,592		84,276

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 26.0 2.56

DUKE ENERGY KENTUCKY

ACCOUNT 3900 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1						
NET SALVAGE PERCENT.. -5						
1948	12,661.26	13,294	13,294			
1951	328.00	338	317	27	0.67	27
1977	3,297.18	2,602	2,442	1,020	8.69	117
2007	40,659.35	12,722	11,939	30,753	24.57	1,252
2008	59,235.18	17,131	16,077	46,120	25.36	1,819
2010	28,802.78	6,904	6,480	23,763	27.01	880
	144,983.75	52,991	50,549	101,684		4,095
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					24.8	2.82

DUKE ENERGY KENTUCKY

ACCOUNT 3910 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2008	2,796.07	1,468	1,470	1,326	9.50	140
2009	9,910.13	4,707	4,714	5,196	10.50	495
2013	1,587.47	437	438	1,149	14.50	79
2016	734.91	92	92	643	17.50	37
2017	9,544.40	716	717	8,827	18.50	477
2018	928.28	23	23	906	19.50	46
	25,501.26	7,443	7,454	18,048		1,274

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 14.2 5.00

DUKE ENERGY KENTUCKY

ACCOUNT 3911 ELECTRONIC DATA PROCESSING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2013	73,866.51	73,867	73,867			
2014	740,917.71	666,826	599,005	141,913	0.50	141,913
2015	171,406.92	119,985	107,782	63,625	1.50	42,417
2016	399,953.73	199,977	179,638	220,316	2.50	88,126
2017	375,483.33	112,645	101,188	274,295	3.50	78,370
2018	709,786.48	70,979	63,760	646,027	4.50	143,562
	2,471,414.68	1,244,279	1,125,240	1,346,175		494,388
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						2.7 20.00

DUKE ENERGY KENTUCKY

ACCOUNT 3920 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 12-S3						
NET SALVAGE PERCENT.. 0						
2016	17,626.65	3,672	2,339	15,288	9.50	1,609
2017	97,337.15	12,167	7,749	89,588	10.50	8,532
2018	413,742.04	17,241	10,979	402,763	11.50	35,023
	528,705.84	33,080	21,067	507,638		45,164
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						11.2 8.54

DUKE ENERGY KENTUCKY

ACCOUNT 3921 TRANSPORTATION EQUIPMENT - TRAILERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 18-R2.5						
NET SALVAGE PERCENT.. +5						
1999	15,736.15	11,901	14,617	332	3.67	90
2000	5,838.07	4,289	5,268	278	4.08	68
2001	21,763.00	15,460	18,988	1,687	4.54	372
2003	14,278.00	9,344	11,476	2,088	5.60	373
2005	26,234.28	15,466	18,996	5,927	6.83	868
2006	92,022.48	50,995	62,632	24,789	7.50	3,305
2016	78,567.76	9,661	11,866	62,773	15.67	4,006
	254,439.74	117,116	143,843	97,875		9,082
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.8 3.57

DUKE ENERGY KENTUCKY

ACCOUNT 3940 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
1994	1,028.38	1,008	1,008	20	0.50	20
1997	6,942.62	5,971	5,974	969	3.50	277
1998	16,223.30	13,303	13,309	2,914	4.50	648
2000	109,708.96	81,185	81,220	28,489	6.50	4,383
2001	51,974.41	36,382	36,397	15,577	7.50	2,077
2002	37,932.62	25,036	25,047	12,886	8.50	1,516
2003	4,809.80	2,982	2,983	1,827	9.50	192
2005	25,940.45	14,008	14,014	11,926	11.50	1,037
2008	380,978.53	160,011	160,079	220,900	14.50	15,234
2009	2,959.10	1,124	1,124	1,835	15.50	118
2010	176,619.28	60,051	60,077	116,542	16.50	7,063
2011	193,492.90	58,048	58,073	135,420	17.50	7,738
2012	212,729.10	55,310	55,334	157,395	18.50	8,508
2013	139,430.69	30,675	30,688	108,743	19.50	5,577
2014	39,966.78	7,194	7,197	32,770	20.50	1,599
2015	135,407.94	18,957	18,965	116,443	21.50	5,416
2016	489,557.71	48,956	48,977	440,581	22.50	19,581
2017	327,834.85	19,670	19,678	308,157	23.50	13,113
2018	63,619.75	1,272	1,273	62,347	24.50	2,545
	2,417,157.17	641,143	641,417	1,775,740		96,642
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.4 4.00

DUKE ENERGY KENTUCKY

ACCOUNT 3960 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-L2						
NET SALVAGE PERCENT.. 0						
2008	11,770.00	6,199	6,757	5,013	7.10	706
	11,770.00	6,199	6,757	5,013		706
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					7.1	6.00

DUKE ENERGY KENTUCKY

ACCOUNT 3970 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2006	154,485.86	128,738	128,767	25,719	2.50	10,288
2007	166,461.37	127,621	127,650	38,811	3.50	11,089
2009	107,358.47	67,993	68,008	39,350	5.50	7,155
2010	1,387,831.33	786,442	786,621	601,210	6.50	92,494
2011	478,464.22	239,232	239,286	239,178	7.50	31,890
2012	8,837.90	3,830	3,831	5,007	8.50	589
2013	22,988.34	8,429	8,431	14,557	9.50	1,532
2014	330,246.90	99,074	99,096	231,151	10.50	22,014
2015	17,836.10	4,162	4,163	13,673	11.50	1,189
2016	248,081.50	41,348	41,357	206,724	12.50	16,538
2017	658,842.01	65,884	65,899	592,943	13.50	43,922
2018	432,015.03	14,399	14,403	417,612	14.50	28,801
	4,013,449.03	1,587,152	1,587,512	2,425,937		267,501
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						9.1 6.67

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-024

REQUEST:

Provide the Asset Retirement Obligations recorded for the East Bend Station by FERC account/subaccount (assets and liabilities) as of September 30, 2019 for each specific legal obligation.

RESPONSE:

Duke Energy Kentucky has Asset Retirement Obligations (AROs) recorded for the East Bend Station related to the coal ash basin, the East coal ash landfill, and the West coal ash landfill. The Asset Retirement Costs related to these AROs are recorded within FERC Plant Account 317 – Asset Retirement Costs for Steam Production Plants.

The asset and liability balances at September 30, 2019 for these AROs were:

<u>ARO</u>	<u>Asset Balance</u> (FERC 101)	<u>Accumulated Depreciation Balance</u> (FERC 108)	<u>Liability Balance</u> (FERC 230)
Coal Ash Basin & Landfills (East & West)	\$60,060,849	\$16,410,583	\$42,669,314

PERSON RESPONSIBLE: Melissa B. Abernathy

**Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019**

AG-DR-01-025

REQUEST:

Provide the Asset Retirement Obligations recorded for the Woodsdale CTs by FERC account/subaccount (assets and liabilities) as of September 30, 2019 for each specific legal obligation.

RESPONSE:

Duke Energy Kentucky does not have any Asset Retirement Obligations (AROs) recorded for the Woodsdale CTs at September 30, 2019.

PERSON RESPONSIBLE: Melissa B. Abernathy

**Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019**

AG-DR-01-026

REQUEST:

Refer to Spanos Direct at page 11 lines 22-23. Provide a copy of the Burns McDonnell decommissioning studies of each generation site referenced and confirm whether these are the same ones performed as part of Case No. 2017-00321.

RESPONSE:

Please see STAFF-DR-02-146.

PERSON RESPONSIBLE: John J. Spanos

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-027

REQUEST:

Refer to the referenced Burns McDonnell decommissioning studies in the preceding question. In regards to any Asbestos abatement and other remediation costs for the East Bend Station and the Woodsdale CTs, indicate which, if any, of the costs for each unit relates to the Asset Retirement Obligations recorded by the Company.

RESPONSE:

The Burns & McDonnell Decommissioning Cost Estimate Study, dated March 22, 2017, concludes that due to the vintages of Woodsdale and East Bend, that these two plants do not have asbestos. Duke Energy Kentucky did previously have an ARO recorded for asbestos removal at East Bend; however, this ARO has been removed based on this updated Burns & McDonnell study.

PERSON RESPONSIBLE: Melissa B. Abernathy

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-028

REQUEST:

Provide a copy of the depreciation study determination of current depreciation rates and confirm whether those rates were authorized as part of Case No. 2017-00321. In addition, provide the determinations of the terminal net salvage component of the depreciation rates and the underlying workpapers support, including any conceptual or other studies used to develop the terminal net salvage estimate and/or percentage. Finally, provide the probable retirement date and service life used for each generating unit in the determination of current depreciation rates.

RESPONSE:

The attached schedule, AG-DR-01-028 Attachment 1 sets forth the current depreciation rates, probable retirement dates, life and net salvage parameters utilized to develop those depreciation rates. These depreciation rates were developed and authorized in Case No. 2017-00321. The terminal net salvage component approved in Case No. 2017-00321 is set forth in the net salvage percent utilized in the depreciation rate. These workpapers are provided in AG-DR-01-028 Attachment 2.

PERSON RESPONSIBLE: John J. Spanos

DUKE ENERGY KENTUCKY

CURRENT RETIREMENT DATES, SURVIVOR CURVES, NET SALVAGE,
AND ANNUAL DEPRECIATION RATES

	ACCOUNT (1)	PROBABLE RETIREMENT DATE (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	CURRENT DEPRECIATION RATE (5)
COMMON PLANT					
1900	STRUCTURES AND IMPROVEMENTS				
	ERLANGER OPERATIONS CENTER	06-2065	90-R1 *	0	0.97
	KENTUCKY SERVICE BUILDING - 19TH AND AUGUSTINE	06-2042	90-R1 *	0	0.41
	MINOR STRUCTURES		40-R1	(10)	2.14
1910	OFFICE FURNITURE AND EQUIPMENT		20-SQ	0	5.00
1911	ELECTRONIC DATA PROCESSING		5-SQ	0	20.00
1940	TOOLS, SHOP AND GARAGE EQUIPMENT		25-SQ	0	4.00
1970	COMMUNICATION EQUIPMENT		15-SQ	0	6.67
1980	MISCELLANEOUS EQUIPMENT		15-SQ	0	6.67
STEAM PRODUCTION PLANT					
EAST BEND					
3110	STRUCTURES AND IMPROVEMENTS	06-2041	100-S0.5 *	(17)	2.47
3120	BOILER PLANT EQUIPMENT	06-2041	40-S0.5 *	(17)	2.24
3123	BOILER PLANT EQUIPMENT - SCR CATALYST	06-2041	10-S2.5	0	4.56
3140	TURBOGENERATOR UNITS	06-2041	40-S0.5 *	(17)	2.36
3150	ACCESSORY ELECTRIC EQUIPMENT	06-2041	55-R2 *	(17)	2.24
3160	MISCELLANEOUS POWER PLANT EQUIPMENT	06-2041	45-S0 *	(17)	3.17
OTHER PRODUCTION PLANT					
WOODSDALE					
3401	RIGHTS OF WAY	06-2032	40-SQ	0	3.77
3410	STRUCTURES AND IMPROVEMENTS	06-2032	60-R4 *	(4)	2.52
3420	FUEL HOLDERS, PRODUCERS AND ACCESSORIES	06-2032	55-S2.5 *	(4)	2.13
3440	GENERATORS	06-2032	45-R2 *	(4)	3.36
3450	ACCESSORY ELECTRIC EQUIPMENT	06-2032	40-R2 *	(4)	3.82
3460	MISCELLANEOUS POWER PLANT EQUIPMENT	06-2032	35-S0 *	(4)	3.71
TRANSMISSION PLANT					
3501	RIGHTS OF WAY		65-R4	0	1.27
3520	STRUCTURES AND IMPROVEMENTS		65-R2.5	(10)	1.96
3530	STATION EQUIPMENT		50-R2	(15)	2.16
3531	STATION EQUIPMENT - STEP UP		50-R2.5	0	2.05
3532	STATION EQUIPMENT - MAJOR		60-R2.5	(10)	1.73
3534	STATION EQUIPMENT - STEP UP EQUIPMENT		30-R2.5	0	4.13
3550	POLES AND FIXTURES		55-R1.5	(30)	1.76
3560	OVERHEAD CONDUCTORS AND DEVICES		50-R1	(30)	1.91
3561	OVERHEAD CONDUCTORS AND DEVICES - CLEARING/ROW		60-R3	0	1.74
DISTRIBUTION PLANT					
3601	RIGHTS OF WAY		70-R3	0	1.03
3610	STRUCTURES AND IMPROVEMENTS		65-R2.5	(10)	2.26
3620	STATION EQUIPMENT		48-R2.5	(15)	2.35
3622	STATION EQUIPMENT - MAJOR		60-R2.5	(10)	1.59
3640	POLES, TOWERS AND FIXTURES		52-R0.5	(40)	2.09
3650	OVERHEAD CONDUCTORS AND DEVICES		50-O1	(25)	2.14
3651	OVERHEAD CONDUCTORS AND DEVICES - CLEARING/ROW		60-R2.5	0	1.65
3660	UNDERGROUND CONDUIT		65-S2.5	(20)	1.80
3670	UNDERGROUND CONDUCTORS AND DEVICES		58-R2	(20)	2.07
3680	LINE TRANSFORMERS		45-R0.5	(10)	1.68
3682	LINE TRANSFORMERS - CUSTOMER		50-R1.5	(10)	0.31
3691	SERVICES - UNDERGROUND		60-R2	(25)	1.87
3692	SERVICES - OVERHEAD		53-R1	(20)	1.21
3700	METERS		24-L1	(1)	6.32
3702	UoF METERS		15-S2.5	0	6.85

DUKE ENERGY KENTUCKY

CURRENT RETIREMENT DATES, SURVIVOR CURVES, NET SALVAGE,
 AND ANNUAL DEPRECIATION RATES

	<u>ACCOUNT</u> (1)	<u>PROBABLE RETIREMENT DATE</u> (2)	<u>SURVIVOR CURVE</u> (3)	<u>NET SALVAGE PERCENT</u> (4)	<u>CURRENT DEPRECIATION RATE</u> (5)
3712	COMPANY-OWNED OUTDOOR LIGHTING		20-S0.5	0	5.26
3720	LEASED PROPERTY ON CUSTOMER PREMISES		25-L3	0	-
3731	STREET LIGHTING - OVERHEAD		32-L0.5	(10)	0.73
3732	STREET LIGHTING - BOULEVARD		45-R1.5	(10)	1.18
3733	STREET LIGHTING - CUSTOMER POLES		30-L0	(10)	2.67
GENERAL PLANT					
3900	STRUCTURES AND IMPROVEMENTS		35-S1	(5)	3.40
3910	OFFICE FURNITURE AND EQUIPMENT		20-SQ	0	-
3911	ELECTRONIC DATA PROCESSING		5-SQ	0	20.00
3920	TRANSPORTATION EQUIPMENT		12-S3	0	8.56
3921	TRANSPORTATION EQUIPMENT - TRAILERS		18-R2.5	5	3.84
3940	TOOLS, SHOP AND GARAGE EQUIPMENT		25-SQ	0	4.00
3960	POWER OPERATED EQUIPMENT		15-L2	0	6.74
3970	COMMUNICATION EQUIPMENT		15-SQ	0	6.67

* CURVE SHOWN IS INTERIM SURVIVOR CURVE. EACH FACILITY IN THE ACCOUNT IS ASSIGNED AN INDIVIDUAL PROBABLE RETIREMENT YEAR.

NOTE: ACCRUAL RATES AS OF DECEMBER 31, 2017 FOR NEW SOLAR FACILITY WILL BE AS FOLLOWS:

<u>ACCOUNT</u>	<u>RATE</u>
341	4.12
344	4.72
345	4.44

DUKE ENERGY KENTUCKY

TABLE 1. CALCULATION OF TERMINAL AND INTERIM RETIREMENTS AS A PERCENT OF TOTAL RETIREMENTS

LOCATION (1)	PROJECTED RETIREMENTS		TOTAL OF ALL RETIREMENTS (4)=(2)+(3)	TERMINAL RETIREMENT % (5)=(2)/(4)	INTERIM RETIREMENT % (6)=(3)/(4)
	TERMINAL (2)	INTERIM (3)			
STEAM PRODUCTION EAST BEND	(414,333,657)	(274,872,908)	(689,206,565)	60.12	39.88
OTHER PRODUCTION WOODSDALE	(236,739,691)	(51,263,180)	(288,002,871)	82.20	17.80

DUKE ENERGY KENTUCKY

TABLE 2. CALCULATION OF WEIGHTED NET SALVAGE PERCENT

LOCATION (1)	TERMINAL RETIREMENTS		INTERIM RETIREMENTS		WEIGHTED AVERAGE NET SALVAGE % (6)=(2)*(3)+(4)*(5)
	RETIREMENTS (%) (2)	NET SALVAGE (%) (3)	RETIREMENTS (%) (4)	NET SALVAGE (%) (5)	
	STEAM PRODUCTION EAST BEND	60.12	(19)	39.88	
OTHER PRODUCTION WOODSDALE	82.20	(4)	17.80	(2)	(4)

DUKE ENERGY KENTUCKY

TABLE 3. CALCULATION OF TERMINAL NET SALVAGE PERCENT

UNIT (1)	ESTIMATED RETIREMENT YEAR (2)	MW (3)	TOTAL DECOMMISSIONING COSTS (CURRENT \$) (4)	TOTAL DECOMMISSIONING COSTS (FUTURE \$) (5)	ESTIMATED TERMINAL RETIREMENTS (6)	TERMINAL NET SALVAGE (%) (7)=(5)/(6)
STEAM PRODUCTION						
EAST BEND	2041	772	\$ 34,334,000	63,653,317	(414,333,657)	(19)
MIAMI FORT UNIT 6				13,174,095		
OTHER PRODUCTION						
WOODSDALE	2032	564	\$ 6,267,000	9,303,397	(236,739,691)	(4)

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-029

REQUEST:

Refer to the Gannett Fleming Depreciation Study, Attachment JJS-1, Table 1 at pages VI-4 through VI-6. Provide a schedule that shows current versus proposed depreciation rates, survivor curves, and net salvage percentages for all categories identified in the Gannett Fleming Depreciation Study Table 1.

RESPONSE:

The attached schedule, AG-DR-01-029 Attachment sets forth a comparison of the current versus proposed depreciation parameters.

PERSON RESPONSIBLE: John J. Spanos

DUKE ENERGY KENTUCKY

COMPARISON OF CURRENT AND PROPOSED PARAMETERS
 RELATED TO ELECTRIC PLANT AS OF DECEMBER 31, 2018

ACCOUNT (1)	CURRENT			PROPOSED		
	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ANNUAL ACCRUAL RATE (4)	SURVIVOR CURVE (5)	NET SALVAGE PERCENT (6)	ANNUAL ACCRUAL RATE (7)
COMMON PLANT						
1900	STRUCTURES AND IMPROVEMENTS					
	ERLANGER OPERATIONS CENTER	90-R1 *	0	90-R1 *	0	1.67
	KENTUCKY SERVICE BUILDING - 19TH AND AUGUSTINE	90-R1 *	0	90-R1 *	0	0.36
	MINOR STRUCTURES	40-R1	(10)	40-R1	(10)	2.09
1910	OFFICE FURNITURE AND EQUIPMENT	20-SQ	0	20-SQ	0	5.00
1911	ELECTRONIC DATA PROCESSING	5-SQ	0	5-SQ	0	20.00
1940	TOOLS, SHOP AND GARAGE EQUIPMENT	25-SQ	0	25-SQ	0	4.00
1970	COMMUNICATION EQUIPMENT	15-SQ	0	15-SQ	0	6.67
1980	MISCELLANEOUS EQUIPMENT	15-SQ	0	15-SQ	0	6.67
STEAM PRODUCTION PLANT						
3110	STRUCTURES AND IMPROVEMENTS	100-S0.5 *	(17)	85-S1 *	(15)	3.63
3120	BOILER PLANT EQUIPMENT	40-S0.5 *	(17)	45-S0.5 *	(15)	2.89
3123	BOILER PLANT EQUIPMENT - SCR CATALYST	10-S2.5	0	10-S2.5 *	0	0.60
3140	TURBOGENERATOR UNITS	40-S0.5 *	(17)	40-S0.5 *	(15)	2.82
3150	ACCESSORY ELECTRIC EQUIPMENT	55-R2 *	(17)	60-R2.5 *	(15)	2.15
3160	MISCELLANEOUS POWER PLANT EQUIPMENT	45-S0 *	(17)	50-S0 *	(15)	3.37
OTHER PRODUCTION PLANT						
3401	RIGHTS OF WAY	40-SQ	0	40-SQ	0	3.21
3410	STRUCTURES AND IMPROVEMENTS	60-R4 *	(4)	60-R4 *	(5)	2.69
3420	FUEL HOLDERS, PRODUCERS AND ACCESSORIES	55-S2.5 *	(4)	50-S1.5 *	(5)	2.39
3440	GENERATORS	45-R2 *	(4)	45-S0 *	(5)	3.94
3446	GENERATORS - SOLAR	30-S1.5	(5)	25-S2.5 *	(5)	4.85
3450	ACCESSORY ELECTRIC EQUIPMENT	40-R2 *	(4)	40-R2 *	(5)	4.18
3456	ACCESSORY ELECTRIC EQUIPMENT - SOLAR	45-R2.5 *	(5)	20-S2.5 *	(5)	5.62
3460	MISCELLANEOUS POWER PLANT EQUIPMENT	35-S0 *	(4)	40-R1.5 *	(5)	3.73
TRANSMISSION PLANT						
3501	RIGHTS OF WAY	65-R4	0	70-R4	0	0.99
3520	STRUCTURES AND IMPROVEMENTS	65-R2.5	(10)	65-R2.5	(10)	2.00
3530	STATION EQUIPMENT	50-R2	(15)	50-R2	(15)	2.22
3531	STATION EQUIPMENT - STEP UP	50-R2.5	0	50-R2.5	0	2.05
3532	STATION EQUIPMENT - MAJOR	60-R2.5	(10)	65-R2.5	(10)	1.50
3534	STATION EQUIPMENT - STEP UP EQUIPMENT	30-R2.5	0	35-R2.5	0	3.31
3550	POLES AND FIXTURES	55-R1.5	(30)	55-R1.5	(25)	1.76
3560	OVERHEAD CONDUCTORS AND DEVICES	50-R1	(30)	55-R1	(15)	1.26
3561	OVERHEAD CONDUCTORS AND DEVICES - CLEARING/ROW	60-R3	0	60-R3	0	1.69

DUKE ENERGY KENTUCKY

COMPARISON OF CURRENT AND PROPOSED PARAMETERS
 RELATED TO ELECTRIC PLANT AS OF DECEMBER 31, 2018

ACCOUNT (1)	CURRENT			PROPOSED		
	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ANNUAL ACCURAL RATE (4)	SURVIVOR CURVE (5)	NET SALVAGE PERCENT (6)	ANNUAL ACCURAL RATE (7)
DISTRIBUTION PLANT						
3601	RIGHTS OF WAY					
3610	STRUCTURES AND IMPROVEMENTS	70-R3	0	70-R4	0	0.81
3620	STATION EQUIPMENT	65-R2.5	(10)	65-R2.5	(10)	2.08
3622	STATION EQUIPMENT - MAJOR	48-R2.5	(15)	40-R1.5	(10)	3.10
3640	POLES, TOWERS AND FIXTURES	60-R2.5	(10)	65-R2.5	(10)	1.42
3650	OVERHEAD CONDUCTORS AND DEVICES	52-R0.5	(40)	54-R0.5	(40)	2.04
3651	OVERHEAD CONDUCTORS AND DEVICES - CLEARING/ROW	50-O1	(25)	52-O1	(40)	2.42
3660	UNDERGROUND CONDUIT	60-R2.5	0	60-R2.5	0	1.64
3670	UNDERGROUND CONDUCTORS AND DEVICES	65-S2.5	(20)	70-R3	(20)	1.60
3680	LINE TRANSFORMERS	58-R2	(20)	58-R2	(40)	2.55
3682	LINE TRANSFORMERS - CUSTOMER	45-R0.5	(10)	46-R0.5	(15)	1.90
3691	SERVICES - UNDERGROUND	50-R1.5	(10)	55-R1.5	(15)	0.49
3692	SERVICES - OVERHEAD	60-R2	(25)	65-R2.5	(25)	1.70
3700	METERS	53-R1	(20)	55-R1	(30)	1.52
3702	UoF METERS	24-L1	(1)	24-L1	0	3.46
3712	COMPANY-OWNED OUTDOOR LIGHTING	15-S2.5	0	15-S2.5	0	6.86
3720	LEASED PROPERTY ON CUSTOMER PREMISES	20-S0.5	0	10-R2	0	17.90
3731	STREET LIGHTING - OVERHEAD	25-L3	0	25-L3	0	-
3732	STREET LIGHTING - BOULEVARD	32-L0.5	(10)	32-L0.5	(15)	1.16
3733	STREET LIGHTING - CUSTOMER POLES	45-R1.5	(10)	50-R1.5	(20)	1.21
		30-L0	(10)	30-L0	(25)	2.56
GENERAL PLANT						
3900	STRUCTURES AND IMPROVEMENTS	35-S1	(5)	35-S1	(5)	2.82
3910	OFFICE FURNITURE AND EQUIPMENT	20-SQ	0	20-SQ	0	5.00
3911	ELECTRONIC DATA PROCESSING	5-SQ	0	5-SQ	0	20.00
3920	TRANSPORTATION EQUIPMENT	12-S3	0	12-S3	0	8.54
3921	TRANSPORTATION EQUIPMENT - TRAILERS	18-R2.5	5	18-R2.5	5	3.57
3940	TOOLS, SHOP AND GARAGE EQUIPMENT	25-SQ	0	25-SQ	0	4.00
3960	POWER OPERATED EQUIPMENT	15-L2	0	15-L2	0	6.00
3970	COMMUNICATION EQUIPMENT	15-SQ	0	15-SQ	0	6.67

**Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019**

AG-DR-01-030

REQUEST:

Provide an electronic copy, with all formulas intact, of all schedules and supporting workpapers used in the depreciation study presented by Mr. Spanos including but not limited to Table 1 on page VI-4 through VI-6, and page VIII-2, VIII-3, and VIII-4.

RESPONSE:

The requested files have been provided as part of the response to AG-DR-01-023.

PERSON RESPONSIBLE: John J. Spanos

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-031

REQUEST:

Refer to pages VIII-2 through VIII-4 of the Gannett Fleming Depreciation Study which shows an escalation of Decommissioning estimates to future values. Provide the rate of escalation assumed in these calculations and explain why that rate is appropriate. In addition, provide a copy of the source of the Decommissioning estimates before application of escalation rates to future values.

RESPONSE:

An escalation factor of 2.5% was used to determine the future values shown in the depreciation study. The decommissioning costs established in the Burns & McDonnell study (provided as an attachment to request AG-DR-01-026) were reported in 2016 dollars. Since the units will not be retired until 2032 and 2041, it is appropriate to escalate the decommissioning costs annually to the date of retirement. The 2.5% escalation factor is the same as used in the prior rate case which was approved. This is a commonly utilized escalation factor which is based on widely accepted measures of inflation such as the Consumer Price Index and the Handy Whitman Index as examples.

PERSON RESPONSIBLE: John J. Spanos

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-032

REQUEST:

For each generating unit, please provide the date of installation, the probable retirement date reflected in the current depreciation rates and the probable retirement date reflected in the Gannett Fleming depreciation study. In addition, provide a copy of all studies and all other source documents relied on for the proposed probable retirement dates reflected in the Gannett Fleming depreciation study.

RESPONSE:

As explained in the Depreciation Study, the life span estimates for the generating units were determined based on such factors as the lives established for other similar facilities, the age, condition and usage of the units, as well as the expectations for future operation by Duke Energy Kentucky management. The probable retirement dates are the same as currently approved and there has been no change in plans for the units at this time.

GENERATING UNIT	INSTALLATION DATE	CURRENT EXPECTED RETIREMENT DATE	PROPOSED EXPECTED RETIREMENT DATE
EAST BEND	1981	2041	2041
WOODSDALE	1992	2032	2032

PERSON RESPONSIBLE: John J. Spanos

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-033

REQUEST:

Provide a schedule and electronic spreadsheet in live format with all formulas intact showing the additional depreciation expense in the test year for each account and in total due to the proposed change in depreciation rates. In addition, on this same schedule, provide the related increase in accumulated depreciation and reduction in ADIT.

RESPONSE:

Please see AG-DR-01-033 Attachment.

PERSON RESPONSIBLE:

Christopher Jacobi, as to adt'l depreciation expense
John Panizza, as to ADIT impact
Melissa Abernathy, as to depreciation rates

STEAM PRODUCTION PLANT

WORK PAPER REFERENCE NOS.: SCHEDULE B-3.2

Line No. (A)	Company Acct. No. (B-2)	Account Title or Major Property Grouping (C)	Adjusted Jurisdiction 13-Month Average Plant Investment (1) (D)	Proposed Accrual Rate (F)	Calculated Depri/Amort Expense (G-Dx F)	Current Accrual Rate (H)	Calculated Depri/Amort Expense (I=DxH)	Difference Actual vs Proposed (J=G-I)	Effective Tax Rate (K)	ADIT Impact (L=J/K)
1	3100	Land and Land Rights	7,077,688	0.00%	0	0.00%	0	0	24.925%	0
2	3110	Structures & Improvements	79,405,614	3.63%	2,862,431	2.47%	1,961,324	921,107	24.925%	228,586
3	3120	Boiler Plant Equipment	490,994,318	2.89%	14,189,736	2.24%	10,998,273	3,191,463	24.925%	795,472
4	3123	Boiler Plant Equip. - SCR Catalyst	7,579,713	0.60%	5,905,617	4.56%	345,635	(300,157)	24.925%	(74,814)
5	3140	Turbogenerator Equipment	104,333,182	2.82%	2,942,186	2.36%	2,462,263	479,933	24.925%	119,623
6	3150	Accessory Electric Equipment	49,183,779	2.15%	1,057,451	2.24%	1,101,717	(44,266)	24.925%	(11,033)
7	3160	Miscellaneous Powerplant Equipment	21,421,008	3.37%	721,888	Various	679,046	42,842	24.925%	10,678
8	3170	AROs	0	Various	0	0	0	0	24.925%	0
9		Case 2015-120 Acq of DPL Share of East Bend	10,321,540	-	490,618	-	490,618	0	24.925%	0
10		Completed Construction Not Classified	65,023,502	2.95%	1,918,193	2.33%	1,515,048	403,145	24.925%	100,484
11	108	Retirement Work in Progress	0	-	0	-	0	0	24.925%	0
12		Total Steam Production Plant	895,340,554		24,247,991		19,553,924	4,694,067		1,169,986

(1) Plant Investment includes Completed Construction Not Classified (Account 106).

OTHER PRODUCTION PLANT

WORK PAPER REFERENCE NOS.: SCHEDULE B-3.2

Line No. (A)	Company Acct. No. (B-2)	Account Title or Major Property Grouping (C)	Adjusted Jurisdiction 13-Month Average Plant Investment (1) (D)	Proposed Accrual Rate (F)	Calculated Depri/Amort Expense (G=Dx F)	Current Accrual Rate (H)	Calculated Depri/Amort Expense (I=DxH)	Difference Actual vs Proposed (J=G-I)	Effective Tax Rate (K)	ADIT Impact (L=J/K)
1	3400	Land and Land Rights	3,035,569	0.00%	0	0.00%	0	0	24.925%	0
2	3401	Rights of Way	651,684	3.21%	20,919	3.77%	24,568	(3,649)	24.925%	(610)
3	3410	Structures & Improvements	36,434,298	2.69%	980,083	2.52%	918,144	61,939	24.925%	15,438
4	3420	Fuel Holders, Producers, Accessories	61,957,346	2.39%	1,480,781	2.13%	1,319,691	161,090	24.925%	40,152
5	3430	Prime Movers	1,478,010	3.94%	58,234	3.36%	49,661	8,573	24.925%	2,137
6	3440	Generators	212,680,828	3.94%	8,379,625	3.36%	7,146,076	1,233,549	24.925%	307,462
7	3446	Solar Generators - Crittenden	4,168,276	4.85%	202,161	4.72%	196,743	5,418	24.925%	1,350
8	3446	Solar Generators - Walton	5,747,433	4.85%	278,751	4.72%	271,279	7,472	24.925%	1,862
9	3450	Accessory Electric Equipment	21,459,184	4.18%	895,953	3.82%	819,703	77,250	24.925%	19,255
10	3456	Solar Accessory Electric Equipment - Crittenden	425,603	5.62%	23,919	4.44%	18,897	5,022	24.925%	1,252
11	3456	Solar Accessory Electric Equipment - Walton	631,334	5.61%	35,418	4.44%	28,031	7,387	24.925%	1,841
12	3460	Miscellaneous Plant Equipment	4,623,553	3.73%	179,919	3.71%	178,954	965	24.925%	241
13		Completed Construction Not Classified	19,959,856	3.76%	750,491	3.23%	644,703	105,788	24.925%	26,368
14	108	Retirement Work in Progress	0	-	0	-	0	0	24.925%	0
15		Total Other Production Plant	373,451,984		13,287,254		11,616,450	1,670,804		416,448

(1) Plant Investment includes Completed Construction Not Classified (Account 106).

WORK PAPER REFERENCE NOS.: SCHEDULE B-3.2 TRANSMISSION PLANT

Line No. (A)	FERC Acct. No. (B-1)	Company No. (B-2)	Account Title or Major Property Grouping (C)	Adjusted Jurisdiction		Proposed Accrual Rate (F)	Calculated Depr/Amort Expense (G=DxF)	Current Accrual Rate (H)	Calculated Depr/Amort Expense (I=DxH)	Difference Actual vs Proposed (J=I-K)	Effective Tax Rate (K)	ADIT Impact (L-J)*K
				Plant Investment (D)	13-Month Average Accumulated Balance (E)							
1	3500		Land	306,628	0	0.00%	0	0.00%	0	0	24.925%	0
2	3501		Rights of Way	1,029,093	695,812	0.99%	10,188	1.27%	13,068	(2,881)	24.925%	(718)
3	3520		Structures & Improvements	1,480,413	315,945	2.00%	29,608	1.96%	28,016	592	24.925%	148
4	3530		Station Equipment	18,106,965	5,146,842	2.22%	401,975	2.16%	391,111	10,864	24.925%	2,708
5	3531		Station Equipment - Step Up	9,446,665	4,490,882	2.05%	193,657	2.05%	193,657	0	24.925%	0
6	3532		Station Equipment - Major	5,826,370	2,146,937	1.50%	87,396	1.73%	100,796	(13,400)	24.925%	(3,340)
7	3534		Station Equipment - Step Up Equipment	7,067,280	1,664,980	3.31%	233,596	4.13%	291,466	(57,870)	24.925%	(14,424)
8	3550		Poles & Fixtures	11,047,254	3,937,714	1.76%	194,432	1.76%	194,432	0	24.925%	0
9	3556		Overhead Conductors & Devices	6,214,443	3,888,789	1.26%	78,302	1.91%	118,696	(40,394)	24.925%	(10,088)
10	3560		Overhead Conductors - Clear RW	744,846	35,380	1.69%	12,588	1.74%	12,960	(372)	24.925%	(93)
11	3561		Completed Construction Not Classified	11,109,715	197,982	2.05%	227,749	2.24%	248,858	(21,109)	24.925%	(5,261)
12	108		Retirement Work in Progress	0	(2,562,258)	0.00%	0	0.00%	0	0	24.925%	0
13			Total Transmission Plant	72,371,702	19,859,025		1,469,491		1,594,061	(124,570)		(31,049)

(1) Plant Investment includes Completed Construction Not Classified (Account 106).

WORK PAPER REFERENCE NOS.: SCHEDULE B-3.2

DISTRIBUTION PLANT

Line No. (A)	FERC Acct. No. (B-1)	Company Acct. No. (B-2)	Account Title or Major Property Grouping (C)	Adjusted Jurisdiction		Proposed Accrual Rate (F)	Calculated Depreciation Expense (G=DxF)	Current Accrual Rate (H)	Calculated Depreciation Expense (I=DxH)	Difference Actual vs Proposed (J=G-I)	Effective Tax Rate (K)	ADIT Impact (L=M/K)
				Plant Investment (D) \$	13-Month Average Accumulated Balance (E) \$							
1	360	3600	Land and Land Rights	7,236,361	0	0.00%	0	0.00%	0	0	24.925%	0
2	360	3601	Rights of Way	4,483,802	3,125,286	0.81%	36,319	1.03%	46,183	(9,864)	24.925%	(2,459)
3	361	3610	Structures & Improvements	1,393,417	61,929	2.08%	28,983	2.26%	31,481	(2,506)	24.925%	(625)
4	362	3620	Station Equipment	43,886,026	5,055,285	3.10%	1,363,567	2.35%	1,033,672	329,895	24.925%	82,226
5	362	3622	Station Equipment - Major	31,367,795	10,241,335	1.42%	445,423	1.59%	496,748	(53,325)	24.925%	(13,281)
6	363	3630	Storage Battery Equipment	2,508,971	0	6.78%	170,108	6.78%	170,108	0	24.925%	0
7	364	3640	Poles, Towers & Fixtures	64,155,514	29,353,871	2.04%	1,308,772	2.09%	1,340,850	(32,078)	24.925%	(7,985)
8	365	3650	Overhead Conductors & Devices	123,949,869	38,121,859	2.42%	2,989,587	2.14%	2,652,527	347,060	24.925%	86,505
9	365	3651	Overhead Conductors - Clear RW	5,194,079	389,333	1.64%	84,199	1.65%	84,712	(513)	24.925%	(128)
10	366	3660	Underground Conduit	25,185,008	7,526,661	1.60%	402,640	1.80%	452,970	(50,330)	24.925%	(12,845)
11	367	3670	Line Transformers	63,480,020	18,594,106	2.55%	1,618,741	2.07%	1,314,036	304,705	24.925%	75,948
12	368	3682	Customers Transformer Installation	62,153,454	26,890,275	1.90%	1,180,916	1.68%	1,044,178	136,738	24.925%	34,082
13	368	3682	Services - Underhead	273,661	279,620	0.49%	1,341	0.31%	848	493	24.925%	123
14	369	3691	Services - Overhead	2,458,590	647,159	1.70%	41,796	1.87%	45,976	(4,180)	24.925%	(1,042)
15	369	3692	AMI Meters	18,767,918	11,012,232	1.32%	285,272	1.21%	227,082	58,190	24.925%	14,501
16	370	3700	Meters	2,752,636	1,253,617	3.46%	95,252	6.32%	173,986	(78,734)	24.925%	(19,824)
17	370	3702	Company Owned Outdoor Lighting	19,820,963	3,712,188	6.86%	1,359,719	6.65%	1,357,737	1,982	24.925%	494
18	371	3711, 3712	Leased Property on Customers	(132,525)	(569,147)	17.90%	N/A	5.26%	(6,971)	(16,751)	24.925%	(4,175)
19	372	3720	Street Lighting - Overhead	9,647	9,647	N/A	N/A	N/A	N/A	N/A	24.925%	N/A
20	373	3731	Street Lighting - Boulevard	2,363,379	2,032,447	1.16%	27,415	0.73%	17,253	10,162	24.925%	2,533
21	373	3732	Light Choice OLE	3,355,356	2,600,547	1.21%	40,600	1.18%	39,583	1,007	24.925%	251
22	373	3733	Completed Construction Not Classified	0	0	2.56%	0	2.67%	0	0	24.925%	0
23	373	3734	Retirement Work in Progress	94,687,831	1,525,727	2.43%	2,300,914	2.11%	1,997,913	303,001	24.925%	75,523
24				0	(17,119,217)		0	0.00%	0	0	24.925%	0
25				0			0		0			
26			Total Distribution Plant	579,372,092	144,824,860		13,767,842		12,522,902	1,244,940		310,301

(1) Plant Investment includes Completed Construction Not Classified (Account 106).
(2) This account is fully depreciated.

WORK PAPER REFERENCE NOS.: SCHEDULE B-3.2
GENERAL PLANT

Line No. (A)	FERC Acct. No. (B-1)	Company Acct. No. (B-2)	Account Title or Major Property Grouping (C)	Adjusted Jurisdiction		Proposed Accrual Rate (F)	Calculated Depr/Amort Expense (G=DxF)	Current Accrual Rate (H)	Calculated Depr/Amort Expense (I=DxH)	Difference Actual vs Proposed (J=I-F)	Effective Tax Rate (K)	ADIT Impact (L=J/K)
				Plant Investment (1) (D)	Accumulated Balance (E)							
1	303	3030	Miscellaneous Intangible Plant	21,563,744	12,133,239	Various	2,224,721	Various	2,224,721	0	24.925%	0
2	380	3900	Structures & Improvements	144,984	59,062	2.82%	4,089	3.40%	4,929	(840)	24.925%	(208)
3	391	3910	Office Furniture & Equipment	25,630	20,710	5.00%	1,282	5.00%	1,282	0	24.925%	0
4	391	3910-URR	Office Furniture & Equipment		8,721	NA	(1,744) (2)	NA	(251) (2)	(1,493)	24.925%	(372)
5	391	3911	Electronic Data Proc Equip		1,331,560	20.00%	474,091	20.00%	474,091	0	24.925%	0
6	391	3911-URR	Electronic Data Proc Equip		81,900	NA	(16,380) (2)	NA	(2)	32,020	24.925%	7,981
7	392	3920	Transportation Equipment	647,346	48,163	8.54%	Transp Expense	8.56%	Transp Expense	Transp Expense	24.925%	Transp Expense
8	392	3921	Trailers	254,440	156,493	3.57%	Transp Expense	3.84%	Transp Expense	Transp Expense	24.925%	Transp Expense
9	394	3940	Tools, Shop & Garage Equipment	2,573,399	805,637	4.00%	102,836	4.00%	102,836	0	24.925%	0
10	394	3940-URR	Tools, Shop & Garage Equipment		(40,000)	NA	(2)	NA	(2)	(600)	24.925%	(150)
11	386	3960	Power Operated Equipment	11,770	7,029	6.00%	8,000	6.74%	8,600	(600)	24.925%	Transp Expense
12	397	3970	Communication Equipment	4,329,278	1,992,633	6.67%	288,763	6.67%	288,763	0	24.925%	0
13	397-URR	3970	Communication Equipment		29,711	NA	(5,942) (2)	NA	(15,000)	9,058	24.925%	2,258
14			Completed Construction Not Classified	24,799,596	1,622,460	9.31%	2,308,841	9.90%	2,455,159	(146,318)	24.925%	(36,470)
15		108	Retirement Work In Progress	0	21,532							
16			Total General Plant	56,720,633	18,278,850		5,398,657		5,496,830	(108,173)		(26,982)
17			Total Electric Plant	1,917,256,965	768,444,827		58,161,235		50,784,167	7,377,068		1,838,734

(1) Plant Investment includes Completed Construction Not Classified (Account 106).

(2) 5 year life for Unrecovered Reserve for Amortization

COMMON PLANT

WORK PAPER REFERENCE NOS.: SCHEDULE B-3.2

Line No. (A)	FERC Acct. No. (B-1)	Company Acct. No. (B-2)	Account Title or Major Property Grouping (C)	Adjusted Jurisdiction		Proposed Accrual Rate (F)	Calculated Depri/Amort Expense (G=DxF)	Current Accrual Rate (H)	Calculated Depri/Amort Expense (I=DxH)	Difference Actual vs Proposed (J=G-I)	Effective Tax Rate (K)	ADIT Impact (L=JxK)
				Plant Investment (D)	13-Month Average Accumulated Balance (E)							
1			Miscellaneous Intangible Plant	22,332,073	22,332,073	Various	0	Various	0	0	24.925%	0
2		1030	Land and Land Rights	1,041,678	0	0.00%	0	0.00%	0	0	24.925%	0
3		1800	Structures & Improvements	11,594,044	1,708,855	1.59%	184,345	1.26%	146,085	38,260	24.925%	9,536
4		1910	Office Furniture & Equipment	397,455	195,441	5.00%	19,873	5.00%	19,873	0	24.925%	0
5		1910-URR	Office Furniture & Equipment - EDP Equipment	40,535	61,000	NA	(12,200)	NA	(110)	(3)	24.925%	(3,013)
6		1911	Office Furniture & Equipment - EDP Equipment	105,587	(333,849)	20.00%	8,107	20.00%	8,107	0	24.925%	0
7		1911-URR	Tools, Shop & Garage Equipment	8,088,865	(31,041)	NA	6,208	NA	11,520	(3)	24.925%	(1,324)
8		1940	Tools, Shop & Garage Equipment	41,504	49,340	4.00%	4,223	4.00%	4,223	0	24.925%	0
9		1940-URR	Communication Equipment	8,088,865	22,400	NA	(4,480)	NA	(3,600)	(3)	24.925%	(219)
10		1970	Miscellaneous Equipment	41,504	6,060,116	6.67%	539,527	6.67%	539,527	0	24.925%	0
11		1970-URR	Miscellaneous Equipment	41,504	3,497,100	6.67%	(699,420)	6.67%	(753,200)	(3)	24.925%	13,405
12		1980	Miscellaneous Equipment	0	26,441	6.67%	2,768	6.67%	2,768	0	24.925%	0
13		1980-URR	ARO - Common Plant	0	(3,750)	NA	750	NA	860	(3)	24.925%	(27)
14		1890	Completed Construction Not Classified	0	0	Various	0	0.00%	0	0	24.925%	0
15		108	Retirement Work In Progress	(8,600)	0	3.30%	0	4.13%	0	0	24.925%	0
16												
17			Total Common Plant	43,641,741	33,575,326		49,701		(23,947)	73,648		18,357
18			Common Plant Allocated to Electric									
19			73.56% Original Cost	32,102,866								
20			73.56% Reserve		24,698,010							
21			73.56% Annual Provision				36,560		(17,615)	54,175		
22			Total Electric Plant including Allocated Common	1,949,359,831	793,142,837		58,197,795		50,766,552	7,431,243		1,838,734

(1) Plant Investment includes Completed Construction Not Classified (Account 106).
 (2) Composite of four groups in Structures & Improvements account.
 (3) 5 year life for Unrecovered Reserve for Amortization
 (4) Fully Amortized

**Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019**

AG-DR-01-034

REQUEST:

Refer to the Panizza Direct at page 7, lines 1-13. Provide the calculations of estimated test year property tax expense, including copies of the sources of the property tax rates, in electronic format with all formulas intact.

RESPONSE:

See STAFF-DR-02-062 Attachment and STAFF-DR-02-107.

PERSON RESPONSIBLE: Christopher M. Jacobi
John Panizza

**Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019**

AG-DR-01-035

REQUEST:

Refer to the Panizza Direct at page 7, lines 1-13. Provide the most current and the after increase property tax rates related to the anticipated tax rate increases and explain how each were determined.

RESPONSE:

Please refer to STAFF-DR-02-062 Attachment for the calculation of property tax rates used for forecasting purposes, including the increases to the assumed rates due to expected escalation.

PERSON RESPONSIBLE:

John R. Panizza
Christopher M. Jacobi

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-036

REQUEST:

Refer to the Panizza Direct at page 7, line 1-13. Quantify the projected increase amounts for property tax expense associated with the “anticipated property tax rate increases” as opposed to all other causes of projected property tax expense increases.

RESPONSE:

The effect of the anticipated property tax rate escalation on property tax expenses in the test period is an increase of \$433,642 as compared to using property tax rates which assume no escalation.

PERSON RESPONSIBLE:

John R. Panizza
Christopher M. Jacobi

**Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019**

AG-DR-01-037

REQUEST:

Provide the two most recent pension and OPEB actuarial reports for Duke Energy, DEO, and the Company.

RESPONSE:

Please see AG-DR-01-37 Attachments 1 – 3.

PERSON RESPONSIBLE: Renee Metzler



February 7, 2018

Mr. David Dye
Duke Energy Corporation
550 South Tryon Street
Charlotte, NC 28202

Subject: Actuarial Valuation Report for December 31, 2017 Disclosure and Fiscal 2018 Net Periodic Benefit Cost for Duke Energy Pension Plans and Retiree Welfare Plans

Dear David:

Duke Energy engaged Towers Watson Delaware Inc., a subsidiary of Willis Towers Watson PLC (“Willis Towers Watson”) to value the Company’s pension and other postretirement benefit plans. This report provides information for year-end financial reporting purposes required by FASB Accounting Standards Codification Topic 715-20-50 (ASC 715) for your fiscal year ending December 31, 2017 for the below listed plans.

The exhibits present year-end financial reporting information in accordance with ASC 715-20-50, including the net balance sheet position, cash flow, plan asset information, amortization amounts during the fiscal year, participant information, the provisions on which the valuation is based, and the actuarial assumptions and methods used in the calculations. Additional input is required (as described below) by the Company in relation to the asset disclosures specified in ASC 715-20-50-1(d).

In addition, this report presents the Net Periodic Benefit Cost/(Income), in accordance with ASC 715, for the fiscal year beginning January 1, 2018. Both year-end financial reporting and benefit cost results are based on a valuation of the below plans as of December 31, 2017. In regards to the plans listed below please note the following:

- Effective January 1, 2018, the Duke Energy Retirement Cash Balance Plan (“RCBP”), the Cinergy Corp. Union Employees’ Retirement Income Plan, and the Retirement Plan of Piedmont Natural Gas, Inc. were reorganized into two (2) plans: the RCBP and the Duke Energy Legacy Pension Plan (new plan) through a series of spinoffs and mergers. This reorganization was reflected in the fiscal 2018 Net Periodic Benefit Cost information only.
- Effective January 1, 2018, the Legacy Duke and Legacy Progress medical plans were consolidated for accounting purposes. This consolidation was reflected in the fiscal 2018 Net Periodic Benefit Cost information only.

Qualified Pension Plans

- Duke Energy Retirement Cash Balance Plan
- Cinergy Corp. Union Employees’ Retirement Income Plan (Fiscal year 2017 disclosure only)
- Duke Energy Legacy Pension Plan (Fiscal year 2018 cost only)
- Retirement Plan for Bargaining Unit Employees of Florida Progress Corporation
- Retirement Plan of Piedmont Natural Gas, Inc. (Fiscal year 2017 disclosure only)

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Non-Qualified Pension Plans

- Duke Energy Executive Cash Balance Plan
- Progress Energy Supplemental Senior Executive Retirement Plan (Inactives only)
- Florida Progress Corporation Nonqualified Retirement Plans (reflects the consolidation of the Florida Progress Supplemental Executive Retirement Plan and the Nondiscrimination Plan)
- Piedmont Natural Gas Company Nonqualified Retirement Plans

OPEB Plans

- Duke Energy Retiree Health and Welfare Benefits (Medical and Life Insurance) for Future Retirees and Retirees in Legacy Duke Energy and Cinergy Locations
- Duke Energy Retiree Health and Welfare Benefits (Medical and Life Insurance) for Future Retirees and Retirees in Legacy Progress Energy Locations
- Piedmont Natural Gas Company, Inc. Postretirement Benefits Plan

Financial Reporting Information

As discussed above, the enclosed information was prepared in accordance with FASB ASC 715-20-50 and 715-60-50 and certain information must be provided by Duke Energy that we do not prepare or that requires your further consideration:

- Categorization of assets, actual asset allocation at the end of 2017 and 2016, and the target asset allocation for 2018.
- A description of Duke Energy's investment policy for the assets held by the pension and postretirement benefit plans.
- A description of the basis used to determine the expected long-term rate of return on plan assets.

In consultation with Duke Energy, \$128 million and \$13 million have been contributed to the Duke Energy Retirement Cash Balance Plan and the Retirement Plan for Bargaining Unit Employees of Florida Progress Corporation, respectively, on January 2, 2018. Additionally, a contribution of \$7 million is planned for the Duke Energy Retirement Cash Balance Plan on December 28, 2018 and will be allocated to the Piedmont Natural Gas payroll company. No other contributions are planned for 2018 for the qualified pension plans. With the exception of the merged Legacy Duke and Progress Medical Plan, the expected contributions to the Legacy Duke and Progress other postretirement benefits plans have been set to the expected benefit disbursements for unfunded plans and expected benefit disbursements net of available assets for funded plans. For the merged Legacy Duke and Progress Medical Plan, the expected contributions have been set equal to the expected benefit disbursements for Legacy Progress participants. The expected contributions for the unfunded nonqualified pension plans have been set to the expected benefit disbursements for the given year.

Note that any significant change in the amounts contributed or expected to be contributed in 2018 will require disclosure in the interim financial statements.

Summary of Results

Fiscal 2018 Net Periodic Benefit Cost

The table on the next page provides a summary of the 2018 net periodic benefit cost for the Duke Energy benefit plans compared to fiscal 2017 and compared to the fiscal 2018 budget estimates provided in August 2017 for the non-qualified pension plans and OPEB plans, and in September 2017 for the qualified pension plans.

	2017 Net Periodic Benefit Cost	2018 Net Periodic Benefit Cost (Budget)	2018 Net Periodic Benefit Cost (Actual)
Qualified Pension Plans	\$79,102,006	\$50,450,270	\$26,492,066
Non-Qualified Pension Plans	\$20,742,844	\$20,728,263	\$19,807,430
OPEB Plans	<u>(\$73,856,773)</u>	<u>\$16,402,384</u>	<u>\$14,715,999</u>
SUBTOTAL	\$25,988,077	\$87,580,917	\$61,015,495
Curtailment/settlement	<u>(\$17,659,932)</u>	<u>\$0</u>	<u>TBD</u>
TOTAL	\$8,328,145	\$87,580,917	TBD

Comments on Fiscal 2018 Net Periodic Benefit Cost

As previously reported, the total budgeted benefit cost for fiscal 2018 was projected to increase by \$62 million compared to fiscal 2017 (disregarding special curtailment/settlement charges that applied in the fourth quarter of 2017). This increase was the net effect of the following items:

- Expected change for growth of benefit accruals, interest and amortization.
- Change in the discount rate from 4.10% to 3.70%.
- Expected favorable investment performance anticipated for full year 2017.
- Cash contributions to the pension plans of \$145 million during 2017 (or early 2018, in the case of contributions associated with the Retirement Cash Balance Plan).
- Anticipated split/combination of the Duke Energy Retirement Cash Balance Plan (“RCBP”), Cinergy Corp. Union Employees’ Retirement Income Plan (“CGEU”), and Retirement Plan of Piedmont Natural Gas (“PNG Pension”) into Retirement Cash Balance Plan and Legacy Pension Plan, effective January 1, 2018.
- Anticipated consolidation of Legacy Duke Energy, Legacy Cinergy, and Legacy Progress Energy Postretirement Medical Programs for accounting purposes as of January 1, 2018.
- Beginning January 1, 2018, anticipated changes to the mortality tables used for minimum lump sum purposes under IRC Section 417(e).

The actual total net periodic benefit cost for 2018 shown above is \$27 million lower than budget. The primary drivers behind this change compared to the budgeted costs include:

- An increase in cost of \$2 million due to a change in the discount rate from 3.70% (budgeted) to 3.60% (actual).
- A decrease in cost of \$12 million due to actual investment performance during 2017 that was more favorable than anticipated.
- A decrease in cost of \$5 million due to the change in mortality projection scale assumption (adoption of MP-2017 from Scale BB-2D)
- A decrease in cost of \$7 million due to pension plan split optimization workstreams performed during 2017. These include:
 - Working with Duke Energy to identify additional participants who could be moved into the Legacy Pension Plan (e.g. active employees who are no longer accruing benefits under the pension plans because of disability, rehire status, etc.)
 - Recalibrating the purchase accounting adjustment schedule to reflect the extended amortization period of the pension plan split
- A decrease in cost of \$2 million due to reflection of the Piedmont pension plan settlement charge during 2017 (accelerated unrecognized loss from AOCI into 2017 cost vs. deferring into future years)

- A decrease in cost of \$3 million due to other sources of gain/loss. E.g. terminations/retirements during 2017 less than expected, actual benefit payments during 2017 less than expected, final plan split population "true-ups" based on data provided by Aight, amortization period "true-ups" based on population at end of the year

The pre-purchase accounting amortization adjustment for the legacy Cinergy plans is \$11.4 million for fiscal 2018 and is determined based on a special schedule we prepared for this purpose dated December 16, 2015 and the updated exhibit for the qualified plans, which was revised after reflection of pension plan reorganization, dated January 9, 2018.

Comments on Actuarial (Gains)/Losses Experienced During 2017

The following key items account for the actuarial gain/loss activity (changes in Accumulated Other Comprehensive Income pre-tax) due to demographic experience, including key assumption changes, and investment returns different from assumed during 2017.

(Gain)/Loss Item – in \$Millions	All Pension Plans	All OPEB
Liability Experience		
Change in assumptions from December 31, 2016 to December 31, 2017:		
▪ Economic assumption changes	\$403	\$34
▪ Demographic assumption changes	(43)	(5)
▪ Plan changes	(61)	(28)
▪ Updated health care cost trend rates, per capita claims costs and claim experience	n/a	1
▪ All other plan participation experience	171	(26)
Asset Experience		
Investment performance higher than expected. The actual rate of return was a gain of approximately 12.00% for the Retirement Master Trust; while the expected rate of return was 6.50%.	(481)*	(11)

*Represents additional 2017 asset (gain)/loss reported in AOCI

MD&A Sensitivities

The following tables provide you with requested sensitivity information on critical accounting assumptions for the pension and other postretirement welfare plans.

Table 1: 25 basis point changes in the discount rate and expected return on assets:

(in \$Millions)	Pension Plans (Qualified + Nonqualified)		Other Postretirement Plans	
	+0.25%	-0.25%	+0.25%	-0.25%
Effect on 2017 pre-tax net periodic cost				
▪ Expected long-term rate of return	(\$21)	\$21	(\$1)	\$1
▪ Discount rate	(\$17)	\$19	(\$1)	\$1
Effect on benefit obligation at 12/31/2017				
▪ Discount rate	(\$223)	\$229	(\$17)	\$17

Table 2: 100 basis point change in health care trend rate for the postemployment welfare plans:

(in \$Millions)	Other Postretirement Plans	
	+1.00%	-1.00%
Effect on 2017 pre-tax net periodic cost	\$5	(\$4)
Effect on benefit obligation at 12/31/2017	\$27	(\$24)

Actuarial Certification

This valuation has been conducted in accordance with generally accepted actuarial principles and practices. However, please note the information discussed below regarding this valuation.

Reliances

In preparing the results presented in this report, we have relied upon information regarding plan provisions, participants, assets and sponsor accounting policies and methods provided by Duke Energy and other persons or organizations designated by Duke Energy. We have relied on all the data and information provided as being complete and accurate. We have reviewed this information for overall reasonableness and consistency, but have neither audited nor independently verified this information. Based on discussions with the plan sponsor, assumptions or estimates may have been made if data were not available. We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations. The results presented in this report are directly dependent upon the accuracy and completeness of the underlying data and information. Any material inaccuracy in the data, assets, plan provisions or other information provided to us may have produced results that are not suitable for the purposes of this report and such inaccuracies, as corrected by Duke Energy, may produce materially different results that could require that a revised report be issued.

Measurement of Benefit Obligations, Plan Assets and Balance Sheet Adjustments

With the exception of the Piedmont postretirement benefits plan, the benefit obligations were measured as of Duke Energy's December 31, 2017 fiscal year end and were projected forward from January 1, 2017 to the end of the year, adjusting for benefit payments, expected growth in the benefit obligations, changes in assumptions and plan provisions, and any known demographic experience that occurred during the year.

For the Piedmont postretirement benefits plan, the benefit obligations were also measured as of December 31, 2017 and were projected forward from October 31, 2016 to the measurement date, adjusting for benefit payments, expected growth in the benefit obligations, changes in assumptions and plan provisions, and any known demographic experience that occurred during the year.

Per discussions with Duke Energy, the effects of changes in plan provisions (see section below entitled "Significant Events and Plan Changes During the Year" for additional details), were measured as of December 31, 2017 and determined on a payroll company basis.

Asset values, net investment returns, and benefits paid during 2017 used in our financial exhibits for funded plans were based on the Wells Fargo Trust reports and the Northern Trust reports provided to us by Duke Energy dated January 16, 2018. Duke Energy provided actual 2017 benefit payment information for the RCBP and CGEU pension plans, by payroll company, on January 9, 2018. Information about VEBA trust assets was furnished to us by Duke Energy on January 16, 2018. Benefit payments made from corporate assets were furnished to us by Duke Energy on January 11, 2018.

Please note that for the Legacy Duke and Cinergy Retiree Medical and Legacy Cinergy Retiree Life Plans, a portion of the actual employer claims and retiree contributions provided for Duke Energy Commercial Enterprises ("DECE") were reported under Ohio. As a result, we reallocated the actual employer claims and retiree contributions provided by Duke Energy for Ohio and Duke Energy Commercial Enterprises in proportion to the expected claims to be paid for these two payroll companies.

Participant Data

Participant data was collected as of January 1, 2017 and provided by Duke Energy's third-party plan administrator. This data was used to measure plan obligations as of January 1, 2017. Participant data for the Piedmont postretirement benefits plan was provided as of October 31, 2016 by the prior actuary and was used to measure plan obligations as of October 31, 2016.

Participant Transfers

Updated payroll company codes were provided by Duke Energy for active employees in November 2017 and reflected in the payroll-level obligations of the plans. Additionally, Duke Energy identified key groups of transferred employees for which assets (if applicable) and pro-rata unrecognized amounts should be explicitly transferred in the reporting for the pension and OPEB plans. The effect of this transaction is captured in our exhibits as "Payroll Company Transfers."

Allocation Methodology

We employed an allocation approach similarly used in prior years. Details regarding this approach are provided in Appendix D of this report.

As it relates to the pension plan reorganization effective January 1, 2018, key allocation items to note include:

- Projected benefit obligation allocated to the Legacy Pension Plan is based on an individual participant-level roll-forward of obligations as of January 1, 2017, adjusted for actual benefit payment experience during the year as provided by Duke Energy on an individual basis. We also relied on plan assignment information provided by Alight on December 8, 2017. Since census data as of December 31, 2017 was not collected, this approach is considered an estimate and additional true-up may be needed in the coming months as more current census information is collected.
- Fair value of assets allocated to the Legacy Pension Plan (total plan level) is based on the amounts calculated in our letter to Duke Energy dated December 19, 2017. Actual amount of

- assets allocated to the Legacy Pension Plan will be trued-up with final census information and market conditions during the coming months. Therefore the amount allocated to the Legacy Pension Plan for purposes of 2018 cost determination is still considered preliminary/estimated.
- Market related value of assets, and resulting deferral bases, was allocated between the RCBP and Legacy Pension Plan as of January 1, 2018 based on the fair value of assets of each plan.
 - Unrecognized (gain)/loss was allocated between the RCBP and the Legacy Pension Plan as of January 1, 2018 based on the projected benefit obligation of each plan.
 - Unrecognized prior service cost/(credit) has been allocated entirely to the RCBP since those bases represent benefit changes associated with active participants
 - Fair value of assets in the RCBP and Legacy Pension plans have been allocated between the payroll companies using the ERISA Section 4044 Priority Category 3 and Priority Category 4 liabilities, by payroll company, which was consistent with how the plan-level assets were allocated in December 2017. We retained the aggregate fair value of assets associated with each payroll location before the pension plan split.
 - Unrecognized (gain)/loss in the RCBP and Legacy Pension plans have been allocated between the payroll companies based on each payroll company's proportion of active and inactive projected benefit obligation. We retained the aggregate unrecognized (gain)/loss associated with each payroll location before the pension plan split.

In all instances above, the allocation procedures were applied to each plan (RCBP, CGEU, and Piedmont pension plan) on an individual basis, and then items were merged together based on the mechanics outlined by the pension plan reorganization.

Assumptions and Methods under U.S. GAAP

As required by U.S. GAAP, the actuarial assumptions and methods employed in the development of the pension and other postretirement benefit cost and other financial reporting results have been selected by Duke Energy. Willis Towers Watson has concurred with these assumptions and methods, with the exception of the expected return on asset assumption which was separately prepared by Duke Energy using additional sources of data outside of the scope of our review. ASC 715-30-35 requires that each significant assumption "individually represent the best estimate of a particular future event".

The changes in key assumptions since the prior fiscal year are as follows:

- The discount rate decreased from 4.10% at December 31, 2016 to 3.60% at December 31, 2017.
- The interest rate and mortality basis for lump sum conversions was updated to reflect current market conditions and recent IRS regulations, which updated the mortality table used in these conversions.
- The mortality improvement assumption was changed from the BB-2D male and female improvement scales to the MP-2017 projection scale to align with Duke Energy's expectation of future mortality improvements.
- The cash balance interest crediting rate for the prior Duke Energy formula balances subject to the 30-year Treasury yield was changed from 4.25% to 4.00%.
- The health care trend was reset at 7.00% for 2018 grading down 50 basis points until 5.50% in 2021 then grading down 25 basis points to the ultimate rate of 4.75% in 2024 as a result of increased prescription drug costs combined with more recent increases in medical costs.
- Per capita claims cost assumptions were updated to reflect updated enrollment and claim experience using paid claims data during March 2015 through February 2017 as provided by Truven Health Analytics for each Legacy group (Duke, Cinergy and Progress). Based on this analysis, on a

combined group basis, per capita claims costs for pre-65 plan options increased by 5.9%, slightly less than expected.

- Actual 2018 UHC Medicare exchange premiums for post-65 plan options experienced higher than expected increases in premiums for Medicare Supplement plans in NC and lower than expected increases in premiums for SC, IN, and FL. These combined with higher than expected increases in prescription drug plan premiums resulted in total premiums that were slightly higher than expected with trend.

The results shown in this report have been developed based on actuarial assumptions that, to the extent evaluated by Willis Towers Watson, we consider to be reasonable. Other actuarial assumptions could also be considered to be reasonable. Thus, reasonable results differing from those presented in this report could have been developed by selecting different reasonable assumptions.

Please refer to Appendix A for a complete description of the assumptions and methods used in the determination of plan obligations and costs. In addition, we have included an Appendix E to this report which outlines the rationale behind these assumptions in accordance with our understanding of Actuarial Standards of Practice Nos. 4, 6, 27 and 35. These assumptions are based in part on Willis Towers Watson's recommendation and/or analysis. All assumptions were selected based on information known at the measurement date and on the premises that the plan will continue and that no events will occur in 2018 that would cause a remeasurement that may cause Duke Energy to select different assumptions.

Significant Events and Plan Changes During the Year

Details of the provisions for each pension and postretirement welfare plan can be found in the appendices to the report. The following represent significant events and/or plan changes during the year that we reflected in our measurement of the year-end obligations:

- Pension Plans:
 - Effective January 1, 2018, final average pay benefits for Retirement Plan of Piedmont Natural Gas Company, Inc. participants will be frozen and these participants will earn future benefits under the Duke Energy cash balance formula.
 - Lump sum payments made in 2017 triggered settlement accounting for the Retirement Plan of Piedmont Natural Gas Company, Inc. The settlement charge of approximately \$12 million was recognized in fiscal 2017 (Q4).
- Retiree Welfare Plans:
 - Effective January 1, 2018, eligibility for retiree medical benefits for all employees in the Duke and Progress medical plans will change from 55 with 10 years of service, to age 55 with 10 years of service with service counted beginning at age 45. This change triggered curtailment accounting in the plan, and the curtailment credit of \$30,021,497 was recognized in fiscal 2017 (Q4).
 - Effective January 1, 2018 (January 1, 2020 for employees hired prior to January 1, 2008), legacy Piedmont employees who are currently eligible for retiree medical coverage will move to the Duke enterprise platform.
 - Effective January 1, 2018, legacy Piedmont employees who have not yet retired will no longer be eligible for retiree life insurance.
- All Plans:
 - Fewer than expected terminations observed during 2017 in the legacy Duke Energy, Cinergy, and Progress Energy populations (excluding Florida Bargained group) were reflected in the rollforward of the pension and retiree welfare qualified plans' obligations from January 1, 2017 to the December 31, 2017 measurement date and determination of 2018 Service Cost for the plans.

Notwithstanding the above, we are not aware of any other significant events that would warrant special accounting (i.e. curtailment accounting or special termination accounting) or plan changes during 2017.

Limitations and Nature of Actuarial Calculations

This valuation has been conducted for the purposes described above and may not be suitable for any other purpose. In particular, please note the following:

- This report is not intended to constitute a certification of the Adjusted Funding Target Attainment Percentage (AFTAP) under IRC §436 for any plan year
- This report does not determine funding requirements under IRC §430.
- This report does not provide information for plan reporting under ASC 960.
- This report does not determine liabilities on a plan termination basis, for which a separate extensive analysis would be required. No funded status measure included in this report is intended to assess, and none may be appropriate for assessing, the sufficiency of plan assets to cover the estimated cost of settling benefit obligations, as all such measures differ in some way from plan termination obligations. In addition, funded status measures shown in this report do not reflect the current costs of settling obligations by offering immediate lump sum payments to participants and/or purchasing annuity contracts for the remaining participants (e.g., insurer profit, insurer pricing of contingent benefits and/or provision for anti-selection in the choice of a lump sum vs. an annuity).
- The comparisons of accounting obligations to assets presented in this report cannot be relied upon to determine the need for nor the amount of required future plan contributions, nor the tax deductibility of such contributions. Nevertheless, such comparisons may be useful to assess the need for future contributions because they reflect current interest rates at the measurement date in determining benefit obligations. However, asset gains and losses, demographic experience different from assumed, changes in interest rates, future benefit accruals, if any, and other factors will all affect the need for and amount of future contributions. In addition, if a plan is not required by law to be funded, benefit payments may also be paid directly as they come due.

The results shown in this report are estimates based on data that may be imperfect and on assumptions about future events that cannot be predicted with any certainty. Reasonable efforts were made in preparing this valuation to confirm that items that are significant in the context of the actuarial liabilities or costs are treated appropriately, and are not excluded or included inappropriately. Any rounding (or lack thereof) used for displaying numbers in this report is not intended to imply a degree of precision, which is not a characteristic of actuarial calculations.

If overall future plan experience produces higher benefit payments or lower investment returns than assumed, the relative level of plan costs reported in this valuation will likely increase in future valuations (and vice versa). Future actuarial measurements may differ significantly from the current measurements presented in this report due to many factors, including: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for the measurements (such as the end of an amortization period), and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements.

Limitations on Use

This information is subject to our terms set out herein and in our engagement letter dated April 16, 2015 and any accompanying or referenced terms and conditions.

The information contained in this report was prepared for the internal use of Duke Energy and its auditors in connection with our actuarial valuation of the pension and postretirement welfare plans as described above. It is not intended for and may not be used for other purposes, and we accept no responsibility or liability in this regard. Duke Energy may distribute this actuarial valuation report to the appropriate authorities who have the legal right to require Duke Energy to provide them this report, in which case Duke Energy will use best efforts to notify Willis Towers Watson in advance of this distribution. Further distribution to, or use by, other parties of all or part of this report is expressly prohibited without Willis Towers Watson's prior written consent. Willis Towers Watson accepts no responsibility for any consequences arising from any other party relying on this report or any advice relating to its contents.

Professional Qualifications

The undersigned consulting actuaries are members of the Society of Actuaries and meet the "Qualification Standard for Actuaries Issuing Statements of Actuarial Opinion in the United States" relating to pension and other postretirement benefit plans. Our objectivity is not impaired by any relationship between Duke Energy and our employer, Towers Watson Delaware Inc.

The Pricing Specialist below is responsible for developing and/or determining the reasonableness of retiree welfare plan trend and participation assumptions as well as assumed per capita claims costs (including the aging/morbidity assumption if applicable). The Valuation Actuary is responsible for other aspects of the valuation (e.g., developing and/or reviewing the reasonableness of other valuation assumptions and methods, ensuring that the valuation model reasonably reflects the substantive plan and actual plan operation, preparing demographic data, performing the valuation, implementing the correct accounting or funding calculations, etc.).

Mr. David Dye
February 7, 2018



We will be pleased to discuss our findings at your convenience. Please do not hesitate to contact us if you have any questions.

Sincerely,

Handwritten signature of Michael Thomas in black ink.

Michael Thomas, FSA, EA, CFA
Senior Consulting Actuary
Valuation Actuary
For pension and post-retirement benefit plans

Handwritten signature of Sameer Siddiq in black ink.

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Laurie Koch, FSA, EA
Senior Consulting Actuary
Valuation Actuary
For pension plans

cc: Michael O'Keeffe – Duke Energy
Allen Carrick – Duke Energy
Rich Starr – Duke Energy
Mike Hendershott – Duke Energy
Lisa Steinebach – Duke Energy
Richard Jefferies – Duke Energy
Donna Korte – Duke Energy
Tina Hayes – Duke Energy
Mike Archer, FSA – Willis Towers Watson

**Section 1:
 Year End 2017 Footnote Disclosures
 Duke Energy - All Legacy Qualified Plans**

Payroll Company	Duke Energy Business Services <u>110</u>	Duke Energy Ohio <u>503</u>	Duke Energy Kentucky <u>536</u>
Change in Benefit Obligation			
Benefit Obligation, Beginning of Year	1,900,773,665	341,333,907	106,066,890
Business Combinations and Divestitures	0	0	0
Plan-to-Plan Transfers	0	0	0
Payroll Company Transfers	(20,986,218)	10,257,448	1,586,303
Service Cost	40,376,595	2,545,063	1,360,040
Interest Cost	76,803,324	13,529,440	4,273,646
Gross Benefits Paid	(128,583,300)	(30,478,646)	(6,679,159)
Plan Participants' Contributions	0	0	0
Actuarial Loss/(Gain)	109,699,912	24,377,637	10,368,669
Plan Amendments	0	0	0
Impact of Settlements and Curtailments	0	0	0
Benefit Obligation, End of Year	<u>1,978,083,978</u>	<u>361,564,849</u>	<u>116,976,389</u>
Accumulated Benefit Obligation, End of Year	1,961,855,643	354,473,367	113,556,928
Weighted Average Assumptions Used in Determining Benefit Obligations			
Discount Rate	3.60%	3.60%	3.60%
Interest Crediting Rate	4.00%/4.00%	4.00%/4.00%	4.00%/4.00%
Rate of Compensation Increase	11.50% to 3.50%	11.50% to 3.50%	11.50% to 3.50%
Measurement Date(s)	12/31/2017	12/31/2017	12/31/2017
Change in Plan Assets			
Market Value of Assets, Beginning of Year	1,829,797,122	330,536,050	98,251,738
Business Combinations and Divestitures	0	0	0
Plan-to-Plan Transfers	0	0	0
Payroll Company Transfers	(20,986,218)	10,257,448	1,586,303
Actual Return on Assets (Net of Expenses)	217,072,036	38,934,371	11,673,452
Plan Participants' Contributions	0	0	0
Employer Contributions	4,008,093	2,221,973	1,323,820
Benefits Paid	(128,583,300)	(30,478,646)	(6,679,159)
Impact of Settlements and Curtailments	0	0	0

**Section 1:
 Year End 2017 Footnote Disclosures
 Duke Energy - All Legacy Qualified Plans**

Payroll Company	Duke Energy Business Services	Duke Energy Ohio	Duke Energy Kentucky
	110	503	536
Market Value of Assets, End of Year	1,901,307,733	351,471,196	106,156,154
Funded Status, End of Year	(76,776,245)	(10,093,653)	(10,820,235)
Amounts Recognized in the Statement of			
Financial Position			
Noncurrent Assets	(49,741,545)	6,829,037	1,184,266
Current Liabilities	0	0	0
Noncurrent Liabilities	(27,034,700)	(16,922,690)	(12,004,501)
Net Benefit Asset/(Liability) at End of Year	(76,776,245)	(10,093,653)	(10,820,235)
Amounts Recognized in Accumulated Other			
Comprehensive Income			
Net Transition Obligation/(Asset)	0	0	0
Prior Service Cost/(Credit)	(47,014,210)	(2,622,264)	(728,740)
Net Actuarial Loss/(Gain)	521,644,014	64,521,425	28,656,924
Total	474,629,804	61,899,161	27,928,184
EXPECTED CASH FLOWS			
Expected Employer Benefit Payments (Net of			
Part D Subsidy)			
2018	161,824,430	28,740,435	7,106,296
2019	165,553,696	28,289,327	7,416,914
2020	163,053,931	27,754,365	8,187,634
2021	166,467,482	27,815,524	9,448,705
2022	167,879,730	27,698,290	8,488,615
2023-2027	746,634,363	125,645,668	40,475,029
Expected Company Contributions	39,916,278	420,897	72,080

**Section 1:
Year End 2017 Footnote Disclosures
Duke Energy - All Legacy Qualified Plans**

Payroll Company	Duke Energy Business Services 110	Duke Energy Ohio 503	Duke Energy Kentucky 536
Components of Net Periodic Benefit Cost			
Service Cost	40,376,595	2,545,063	1,360,040
Expected Administrative Expenses	1,749,745	310,110	91,345
Interest Cost	76,803,324	13,529,440	4,273,646
Expected Return on Plan Assets	(116,374,994)	(20,954,839)	(6,289,866)
Amortization of Net Transition Obligation/(Asset)	0	0	0
Amortization of Prior Service Cost/(Credit)	(8,093,633)	(312,715)	(94,712)
Amortization of Net Actuarial Loss/(Gain)	33,173,914	3,265,386	1,407,306
Settlement and Special Termination Benefit Charge/(Credit)	0	0	0
Net Periodic Benefit Cost	<u>27,634,951</u>	<u>(1,617,555)</u>	<u>747,759</u>
Other Changes in Plan Assets and Benefit Obligation Recognized in Other Comprehensive Income			
Business Combinations/Divestitures - Net Actuarial Loss/(Gain)	(5,993,995)	2,529,476	297,007
Business Combinations/Divestitures - Prior Service Cost/(Credit)	857,010	(245,915)	(32,089)
Goodwill Adjustments	0	0	0
Net Actuarial Loss/(Gain)	7,253,125	6,087,995	4,893,738
Amortization of Net Actuarial (Loss)/Gain	(33,173,914)	(3,265,386)	(1,407,306)
Prior Service Cost/(Credit)	0	0	0
Amortization of Prior Service (Cost)/Credit	8,093,633	312,715	94,712
Amortization of Net Transition (Obligation)/Asset	0	0	0
Total Recognized in Other Comprehensive Income	<u>(22,964,141)</u>	<u>5,418,885</u>	<u>3,846,062</u>
Total Recognized in Net Periodic Benefit Cost and Other Comprehensive Income	<u>4,670,810</u>	<u>3,801,330</u>	<u>4,593,821</u>

**Section 1:
 Year End 2017 Footnote Disclosures
 Duke Energy - All Legacy Qualified Plans**

Payroll Company	Duke Energy Business Services	Duke Energy Ohio	Duke Energy Kentucky
	110	503	536
Estimate of Amounts that will be Amortized Out of Accumulated Other Comprehensive Income Into Net Periodic Benefit Cost in 2018			
Net Transition Obligation/(Asset)	0	0	0
Prior Service Cost/(Credit)	(7,965,089)	(358,630)	(99,861)
Net Actuarial Loss/(Gain)	<u>31,922,974</u>	<u>3,574,831</u>	<u>1,663,931</u>
Total	23,957,885	3,216,201	1,564,070
Weighted Average Assumptions Used in Determining Cost			
Discount Rate	4.10%	4.10%	4.10%
Interest Crediting Rate	4.25%/4.00%	4.25%/4.00%	4.25%/4.00%
Expected Return on Plan Assets	6.50%	6.50%	6.50%
Rate of Future Compensation Increases	11.50% to 3.50%	11.50% to 3.50%	11.50% to 3.50%
Measurement Date(s)	12/31/2016	12/31/2016	12/31/2016

**Section 1:
 Year End 2017 Footnote Disclosures
 Duke Energy - All Legacy Nonqualified Plans**

Payroll Company	Duke Energy Business Services	Duke Energy Ohio	Duke Energy Kentucky
	110	503	536
Change in Benefit Obligation			
Benefit Obligation, Beginning of Year	172,036,817	3,729,485	140,435
Business Combinations and Divestitures	0	0	0
Plan-to-Plan Transfers	0	0	0
Payroll Company Transfers	0	0	0
Service Cost	1,175,774	0	0
Interest Cost	6,780,549	146,543	5,543
Gross Benefits Paid	(17,321,806)	(328,459)	(10,571)
Plan Participants' Contributions	0	0	0
Actuarial Loss/(Gain)	7,042,969	201,825	5,601
Plan Amendments	0	0	0
Impact of Settlements and Curtailments	0	0	0
Benefit Obligation, End of Year	<u>169,714,303</u>	<u>3,749,394</u>	<u>141,008</u>
Accumulated Benefit Obligation, End of Year	169,714,303	3,749,394	141,008
Weighted Average Assumptions			
<i>Used in Determining Benefit Obligations</i>			
Discount Rate	3.60%	3.60%	3.60%
Interest Crediting Rate	4.00%	4.00%	4.00%
Rate of Compensation Increase	N/A	N/A	N/A
Measurement Date(s)	12/31/2017	12/31/2017	12/31/2017
Change in Plan Assets			
Market Value of Assets, Beginning of Year	0	0	0
Business Combinations and Divestitures	0	0	0
Plan-to-Plan Transfers	0	0	0
Payroll Company Transfers	0	0	0
Actual Return on Assets (Net of Expenses)	0	0	0
Plan Participants' Contributions	0	0	0
Employer Contributions	17,321,806	328,459	10,571
Benefits Paid	(17,321,806)	(328,459)	(10,571)
Market Value of Assets, End of Year	<u>0</u>	<u>0</u>	<u>0</u>

**Section 1:
 Year End 2017 Footnote Disclosures
 Duke Energy - All Legacy Nonqualified Plans**

Payroll Company	Duke Energy Business Services <u>110</u>	Duke Energy Ohio <u>503</u>	Duke Energy Kentucky <u>536</u>
Funded Status, End of Year	(169,714,303)	(3,749,394)	(141,008)
Amounts Recognized in the Statement of Financial Position			
Noncurrent Assets	0	0	0
Current Liabilities	(10,708,586)	(303,078)	(10,377)
Noncurrent Liabilities	(159,005,717)	(3,446,316)	(130,631)
Net Benefit Asset/(Liability) at End of Year	<u>(169,714,303)</u>	<u>(3,749,394)</u>	<u>(141,008)</u>
Amounts Recognized in Accumulated Other Comprehensive Income			
Net Transition Obligation/(Asset)	0	0	0
Prior Service Cost/(Credit)	(5,096,225)	(1,850)	0
Net Actuarial Loss/(Gain)	59,401,804	776,239	52,175
Total	<u>54,305,579</u>	<u>774,389</u>	<u>52,175</u>
EXPECTED CASH FLOWS			
Expected Employer Benefit Payments (Net of Part D Subsidy)			
2018	10,899,637	308,485	10,562
2019	9,505,127	305,624	10,546
2020	9,273,560	302,128	10,519
2021	10,687,624	297,907	10,478
2022	13,517,238	292,867	10,421
2023-2027	63,897,421	1,354,366	50,393
Expected Company Contributions	10,899,637	308,485	10,562

**Section 1:
 Year End 2017 Footnote Disclosures
 Duke Energy - All Legacy Nonqualified Plans**

Payroll Company	Duke Energy Business Services	Duke Energy Ohio	Duke Energy Kentucky
	<u>110</u>	<u>503</u>	<u>536</u>
Components of Net Periodic Benefit Cost			
Service Cost	1,175,774	0	0
Expected Administrative Expenses	0	0	0
Interest Cost	6,780,549	146,543	5,543
Expected Return on Plan Assets	0	0	0
Amortization of Net Transition Obligation/(Asset)	0	0	0
Amortization of Prior Service Cost/(Credit)	(1,311,307)	(722)	0
Amortization of Net Actuarial Loss/(Gain)	4,938,970	55,327	4,486
Settlement and Special Termination Benefit Charge/(Credit)	0	0	0
Net Periodic Benefit Cost	<u>11,583,986</u>	<u>201,148</u>	<u>10,029</u>
Other Changes in Plan Assets and Benefit Obligation Recognized in Other Comprehensive Income			
Business Combinations/Divestitures - Net Actuarial Loss/(Gain)	0	0	0
Business Combinations/Divestitures - Prior Service Cost/(Credit)	0	0	0
Goodwill Adjustments	0	0	0
Net Actuarial Loss/(Gain)	7,042,969	201,825	5,601
Amortization of Net Actuarial (Loss)/Gain	(4,938,970)	(55,327)	(4,486)
Prior Service Cost/(Credit)	0	0	0
Amortization of Prior Service (Cost)/Credit	1,311,307	722	0
Amortization of Net Transition (Obligation)/Asset	0	0	0
Total Recognized in Other Comprehensive Income	<u>3,415,306</u>	<u>147,220</u>	<u>1,115</u>
Total Recognized in Net Periodic Benefit Cost and Other Comprehensive Income	<u>14,999,293</u>	<u>348,368</u>	<u>11,144</u>

**Section 1:
 Year End 2017 Footnote Disclosures
 Duke Energy - All Legacy Nonqualified Plans**

Payroll Company	Duke Energy Business Services	Duke Energy Ohio	Duke Energy Kentucky
	110	503	536
Estimate of Amounts that will be Amortized Out of Accumulated Other Comprehensive Income Into Net Periodic Benefit Cost in 2018			
Net Transition Obligation/(Asset)	0	0	0
Prior Service Cost/(Credit)	(1,311,307)	(1,058)	0
Net Actuarial Loss/(Gain)	4,801,729	61,524	4,135
Total	3,490,422	60,466	4,135
Weighted Average Assumptions Used in Determining Cost			
Discount Rate	4.10%	4.10%	4.10%
Interest Crediting Rate	4.25%/4.00%	4.25%/4.00%	4.25%/4.00%
Expected Return on Plan Assets	N/A	N/A	N/A
Rate of Future Compensation Increases	N/A	N/A	N/A
Measurement Date(s)	12/31/2016	12/31/2016	12/31/2016

**Section 1:
 Year End 2017 Footnote Disclosures
 Duke Energy - All Legacy Welfare Plans**

Payroll Company	Duke Energy Business Services <u>110</u>	Duke Energy Ohio <u>503</u>	Duke Energy Kentucky <u>536</u>
Change in Benefit Obligation			
Benefit Obligation, Beginning of Year	135,579,599	25,796,440	6,555,572
Business Combinations and Divestitures	0	0	0
Plan-to-Plan Transfers	0	0	0
Payroll Company Transfers	(1,271,436)	464,808	84,829
Service Cost	854,108	154,761	81,843
Interest Cost	5,280,977	1,006,638	254,419
Gross Benefits Paid	(16,686,223)	(2,084,452)	(673,329)
less: federal subsidy on benefits paid	(87,919)	0	0
Plan Participants' Contributions	5,126,407	447,731	192,576
Actuarial Loss/(Gain)	1,241,908	(177,034)	197,144
Plan Amendments	(6,211,512)	(1,354,959)	(642,202)
Impact of Settlements and Curtailments	0	0	0
Benefit Obligation, End of Year	<u>123,825,909</u>	<u>24,253,933</u>	<u>6,050,852</u>
Accumulated Benefit Obligation, End of Year	0	0	0
Weighted Average Assumptions			
<i>Used in Determining Benefit Obligations</i>			
Discount Rate	3.60%	3.60%	3.60%
Interest Crediting Rate	N/A	N/A	N/A
Rate of Compensation Increase	N/A	N/A	N/A
Health Care Cost Trend Rate			
Initial rate	7.00%	7.00%	7.00%
Ultimate rate	4.75%	4.75%	4.75%
Years to ultimate	6	6	6
Measurement Date(s)	12/31/2017	12/31/2017	12/31/2017
Effect of one-percentage-point change in assumed health care cost trend rate on postretirement benefit obligation			
-- Increase	N/A	N/A	N/A
-- Decrease	N/A	N/A	N/A

**Section 1:
 Year End 2017 Footnote Disclosures
 Duke Energy - All Legacy Welfare Plans**

	Duke Energy Business Services 110	Duke Energy Ohio 503	Duke Energy Kentucky 536
Payroll Company			
Change in Plan Assets			
Market Value of Assets, Beginning of Year	39,554,421	6,346,769	1,518,075
Business Combinations and Divestitures	0	0	0
Plan-to-Plan Transfers	0	0	0
Payroll Company Transfers	214,996	(111,545)	35,713
Actual Return on Assets (Net of Expenses)	3,924,968	668,454	160,757
Plan Participants' Contributions	5,126,407	447,731	192,576
Employer Contributions	3,598,070	391,625	197,845
Benefits Paid	(16,686,223)	(2,084,452)	(673,329)
Market Value of Assets, End of Year	<u>35,732,638</u>	<u>5,658,582</u>	<u>1,431,637</u>
Funded Status, End of Year	(88,093,270)	(18,595,350)	(4,619,215)
Amounts Recognized in the Statement of Financial Position			
Noncurrent Assets	0	0	0
Current Liabilities	(3,101,074)	(1,594,384)	(158,967)
Noncurrent Liabilities	(84,992,196)	(17,000,967)	(4,460,248)
Net Benefit Asset/(Liability) at End of Year	<u>(88,093,270)</u>	<u>(18,595,350)</u>	<u>(4,619,215)</u>
Amounts Recognized in Accumulated Other Comprehensive Income			
Net Transition Obligation/(Asset)	0	0	0
Prior Service Cost/(Credit)	(20,187,313)	(1,961,624)	(1,035,967)
Net Actuarial Loss/(Gain)	(3,874,256)	(9,110,093)	(3,796,686)
Total	<u>(24,061,569)</u>	<u>(11,071,717)</u>	<u>(4,832,653)</u>
EXPECTED CASH FLOWS			
Expected Employer Benefit Payments (Net of Part D Subsidy)			
2018	13,213,066	2,600,776	864,197
2019	12,661,743	2,524,166	741,807
2020	11,814,076	2,427,164	633,308

**Section 1:
 Year End 2017 Footnote Disclosures
 Duke Energy - All Legacy Welfare Plans**

Payroll Company	Duke Energy Business Services		Duke Energy Ohio		Duke Energy Kentucky	
	110	503	503	536		
2021	11,239,421	2,297,049	630,851			
2022	10,682,833	2,210,133	616,276			
2023-2027	43,581,815	9,564,762	2,525,942			
Expected Company Contributions	3,156,400	1,622,829	161,803			

**Section 1:
Year End 2017 Footnote Disclosures
Duke Energy - All Legacy Welfare Plans**

Payroll Company	Duke Energy Business Services <u>110</u>	Duke Energy Ohio <u>503</u>	Duke Energy Kentucky <u>536</u>
Expected Subsidies from Medicare Part D			
2018	N/A	N/A	N/A
2019	N/A	N/A	N/A
2020	N/A	N/A	N/A
2021	N/A	N/A	N/A
2022	N/A	N/A	N/A
2023-2027	N/A	N/A	N/A
Components of Net Periodic Benefit Cost			
Service Cost	854,108	154,761	81,843
Expected Administrative Expenses	0	0	0
Interest Cost	5,280,977	1,006,638	254,419
Expected Return on Plan Assets	(2,123,752)	(385,727)	(78,279)
Amortization of Net Transition Obligation/(Asset)	0	0	0
Amortization of Prior Service Cost/(Credit)	(18,207,598)	(298,633)	(184,230)
Amortization of Net Actuarial Loss/(Gain)	(604,214)	(1,206,778)	(424,398)
Curtailment Charge/(Credit)	(3,556,646)	(1,004,686)	(614,458)
Net Periodic Benefit Cost	(18,357,125)	(1,734,425)	(965,103)
Other Changes in Plan Assets and Benefit Obligation			
Recognized in Other Comprehensive Income			
Business Combinations/Divestitures - Net Actuarial Loss/(Gain)	(1,083,818)	1,076,293	18,706
Business Combinations/Divestitures - Prior Service Cost/(Credit)	(22,023)	41,711	2,768
Goodwill Adjustments	0	0	0
Net Actuarial Loss/(Gain)	(559,308)	(459,761)	114,666
Amortization of Net Actuarial (Loss)/Gain	604,214	1,206,778	424,398
Prior Service Cost/(Credit)	(6,211,512)	(1,354,959)	(642,202)
Amortization of Prior Service (Cost)/Credit	21,764,244	1,303,319	798,688
Amortization of Net Transition (Obligation)/Asset	0	0	0
Total Recognized in Other Comprehensive Income	14,491,797	1,813,381	717,024

**Section 1:
 Year End 2017 Footnote Disclosures
 Duke Energy - All Legacy Welfare Plans**

Payroll Company	Duke Energy Business Services <u>110</u>	Duke Energy Ohio <u>503</u>	Duke Energy Kentucky <u>536</u>
Total Recognized in Net Periodic Benefit Cost and Other Comprehensive Income	(3,865,328)	78,956	(248,079)
Estimate of Amounts that will be Amortized Out of Accumulated Other Comprehensive Income Into Net Periodic Benefit Cost in 2018			
Net Transition Obligation/(Asset)	0	0	0
Prior Service Cost/(Credit)	(3,177,041)	(455,838)	(236,251)
Net Actuarial Loss/(Gain)	760,903	313,093	30,942
Total	<u>(2,416,138)</u>	<u>(142,745)</u>	<u>(205,309)</u>

Weighted Average Assumptions

<i>Used in Determining Cost</i>	4.10%	4.10%	4.10%
Discount Rate	4.10%	4.10%	4.10%
Interest Crediting Rate	N/A	N/A	N/A
Expected Return on Plan Assets	6.50%	6.50%	6.50%
Rate of Future Compensation Increases	N/A	N/A	N/A
Medical Trend Rate			
Initial rate	7.00%	7.00%	7.00%
Ultimate rate	4.75%	4.75%	4.75%
Years to ultimate	6	6	6
Measurement Date(s)	12/31/2016	12/31/2016	12/31/2016

Effect of one-percentage-point change in assumed health care cost trend rate on aggregate service and interest cost

-- Increase	N/A	N/A	N/A
-- Decrease	N/A	N/A	N/A



Duke Energy Corporation

Actuarial Valuation Report

**December 31, 2018 Disclosure and Fiscal
2019 Net Periodic Benefit Cost for
Duke Energy Ohio and Duke Energy
Kentucky Retirement Plans**

March 2019

Confidential

The information contained in this report was prepared for the internal use of Duke Energy and its auditors in connection with our actuarial valuation of the pension and postretirement welfare plans as described above. Further distribution to, or use by, other parties of all or part of this report is expressly prohibited without Willis Towers Watson's prior written consent.

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Duke Energy Corporation

Purposes of Valuation

Duke Energy engaged Willis Towers Watson US LLC ("Willis Towers Watson") to value the Company's pension and other postretirement benefit plans for Duke Energy Ohio and Duke Energy Kentucky. This report provides information for year-end financial reporting purposes required by FASB Accounting Standards Codification Topic 715-20-50 (ASC 715) for your fiscal year ending December 31, 2018.

The exhibits present year-end financial reporting information in accordance with ASC 715-20-50, including the net balance sheet position, cash flow, plan asset information, amortization amounts during the fiscal year, participant information, plan provisions on which the valuation is based, and the actuarial assumptions and methods used in the calculations. Additional input is required by the Company in relation to the asset disclosures specified in ASC 715-20-50-1(d).

In addition, this report presents the Net Periodic Benefit Cost/(Income), in accordance with ASC 715, for the fiscal year beginning January 1, 2019. Both year-end financial reporting and benefit cost results are based on a valuation of the Plan as of December 31, 2018.

Actuarial Certification

This valuation has been conducted in accordance with generally accepted actuarial principles and practices. However, please note the information discussed below regarding this valuation.

Reliances

In preparing the results presented in this report, we have relied upon information regarding plan provisions, participants, assets and sponsor accounting policies and methods provided by Duke Energy and other persons or organizations designated by Duke Energy. We have relied on all the data and information provided as being complete and accurate. We have reviewed this information for overall reasonableness and consistency, but have neither audited nor independently verified this information. Based on discussions with the plan sponsor, assumptions or estimates may have been made if data were not available. We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations. The results presented in this report are directly dependent upon the accuracy and completeness of the underlying data and information. Any material inaccuracy in the data, assets, plan provisions or other information provided to us may have produced results that are not suitable for the purposes of this report and such inaccuracies, as corrected by Duke Energy, may produce materially different results that could require that a revised report be issued.

Measurement of Benefit Obligations, Plan Assets and Balance Sheet Adjustments

The benefit obligations were measured as of Duke Energy's December 31, 2018 fiscal year end and are based on census data collected as of January 1, 2018. We have projected forward benefit obligations to the end of the year, adjusting for benefit payments, expected growth in the benefit obligations, changes in assumptions and plan provisions, and any known demographic experience that occurred during the year.

Asset values, net investment returns, and benefits paid during 2018 used in our financial exhibits for funded plans were based on the Northern Trust reports provided to us by Duke Energy dated January 16, 2019, with adjustments provided by Duke Energy on January 17, 2019. Duke Energy provided actual 2018 benefit payment information for the pension plans, by payroll company, on January 9, 2019. Information about VEBA trust assets was furnished to us by Duke Energy on January 14, 2019. Benefit payments made from corporate assets were furnished to us by Duke Energy on January 11, 2019.

Participant Data

Participant data was collected as of January 1, 2018 and provided by Duke Energy's third-party plan administrator. This data was used to measure plan obligations as of January 1, 2018.

Assumptions and Methods under U.S. GAAP

As required by U.S. GAAP, the actuarial assumptions and methods employed in the development of the pension and other postretirement benefit cost and other financial reporting results have been selected by Duke Energy. Willis Towers Watson has concurred with these assumptions and methods, with the exception of the expected return on asset assumption which was separately prepared by Duke Energy using additional sources of data outside of the scope of our review. ASC 715-30-35 requires that each significant assumption "individually represent the best estimate of a particular future event".

Duke Energy Corporation

The results shown in this report have been developed based on actuarial assumptions that, to the extent evaluated by Willis Towers Watson, we consider to be reasonable. Other actuarial assumptions could also be considered to be reasonable. Thus, reasonable results differing from those presented in this report could have been developed by selecting different reasonable assumptions.

Please refer to the Appendix of our letter dated February 6, 2019 for a complete description of the assumptions and methods used in the determination of plan obligations and costs. These assumptions are based in part on Willis Towers Watson's recommendation and/or analysis. All assumptions were selected based on information known at the measurement date and on the premises that the plan will continue and that no events will occur in 2019 that would cause a remeasurement that may cause Duke Energy to select different assumptions.

Limitations and Nature of Actuarial Calculations

This valuation has been conducted for the purposes described above and may not be suitable for any other purpose. In particular, please note the following:

- This report is not intended to constitute a certification of the Adjusted Funding Target Attainment Percentage (AFTAP) under IRC §436 for any plan year
- This report does not determine funding requirements under IRC §430.
- This report does not provide information for plan reporting under ASC 960.
- This report does not determine liabilities on a plan termination basis, for which a separate extensive analysis would be required. No funded status measure included in this report is intended to assess, and none may be appropriate for assessing, the sufficiency of plan assets to cover the estimated cost of settling benefit obligations, as all such measures differ in some way from plan termination obligations. In addition, funded status measures shown in this report do not reflect the current costs of settling obligations by offering immediate lump sum payments to participants and/or purchasing annuity contracts for the remaining participants (e.g., insurer profit, insurer pricing of contingent benefits and/or provision for anti-selection in the choice of a lump sum vs. an annuity).
- The comparisons of accounting obligations to assets presented in this report cannot be relied upon to determine the need for nor the amount of required future plan contributions, nor the tax deductibility of such contributions. Nevertheless, such comparisons may be useful to assess the need for future contributions because they reflect current interest rates at the measurement date in determining benefit obligations. However, asset gains and losses, demographic experience different from assumed, changes in interest rates, future benefit accruals, if any, and other factors will all affect the need for and amount of future contributions. In addition, if a plan is not required by law to be funded, benefit payments may also be paid directly as they come due.

The results shown in this report are estimates based on data that may be imperfect and on assumptions about future events that cannot be predicted with any certainty. Reasonable efforts were made in preparing this valuation to confirm that items that are significant in the context of the actuarial liabilities or costs are treated appropriately, and are not excluded or included inappropriately. Any rounding (or lack thereof) used for displaying numbers in this report is not intended to imply a degree of precision, which is not a characteristic of actuarial calculations.

If overall future plan experience produces higher benefit payments or lower investment returns than assumed, the relative level of plan costs reported in this valuation will likely increase in future valuations (and vice versa). Future actuarial measurements may differ significantly from the current measurements presented in this report due to many factors, including: plan experience differing from that anticipated by

the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for the measurements (such as the end of an amortization period), and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements.

Limitations on Use

This information is subject to our terms set out herein and in our engagement letter dated April 16, 2015 and any accompanying or referenced terms and conditions.

The information contained in this report was prepared for the internal use for Duke Energy and its auditors in connection with our actuarial valuation of the pension and postretirement welfare plans as described above for Duke Energy Ohio and Duke Energy Kentucky. It is not intended for and may not be used for other purposes, and we accept no responsibility or liability in this regard. Duke Energy may distribute this actuarial valuation report to the appropriate authorities who have the legal right to require Duke Energy to provide them this report, in which case Duke Energy will use best efforts to notify Willis Towers Watson in advance of this distribution. Further distribution to, or use by, other parties of all or part of this report is expressly prohibited without Willis Towers Watson's prior written consent. Willis Towers Watson accepts no responsibility for any consequences arising from any other party relying on this report or any advice relating to its contents.

Professional Qualifications

The undersigned consulting actuaries are members of the Society of Actuaries and meet the "Qualification Standard for Actuaries Issuing Statements of Actuarial Opinion in the United States" relating to pension and other postretirement benefit plans. Our objectivity is not impaired by any relationship between Duke Energy and our employer, Willis Towers Watson US LLC.

The Pricing Specialist below is responsible for developing and/or determining the reasonableness of retiree welfare plan trend and participation assumptions as well as assumed per capita claims costs (including the aging/morbidity assumption if applicable).

Duke Energy Corporation

We will be pleased to discuss our findings at your convenience. Please do not hesitate to contact us if you have any questions.

Sincerely,



Michael Thomas, FSA, EA, CFA
Senior Director, Retirement
For pension and post-retirement benefit plans



Sameer Siddiq, FSA, MAAA
Director, Health & Benefits
Pricing Specialist for post-retirement benefit plans



Monica Martin, FSA, EA
Senior Director, Retirement
For pension and post-retirement benefit plans



Laurie Koch, FSA, EA
Director, Retirement
For pension plans

Section 1: Year End 2018 Footnote Disclosures for Duke Energy Ohio and Kentucky

All Legacy Qualified Plans

Payroll Company	Duke Energy Business Services	Duke Energy Ohio	Duke Energy Kentucky
	110	803	638
Change in Benefit Obligation			
Benefit Obligation, Beginning of Year	1,978,083,978	361,664,849	116,976,389
Business Combinations and Divestitures	0	0	0
Plan-to-Plan Transfers	0	0	0
Payroll Company Transfers	16,059,603	0	0
Service Cost	46,066,590	3,041,051	1,387,277
Interest Cost	69,982,335	12,613,059	4,134,310
Gross Benefits Paid	(113,183,282)	(28,902,466)	(7,995,882)
Plan Participants' Contributions	0	0	0
Actuarial Loss/(Gain)	(136,782,771)	(18,016,540)	(11,106,799)
Plan Amendments	0	0	0
Impact of Settlements and Curtailments	0	0	0
Benefit Obligation, End of Year	<u>1,880,216,453</u>	<u>330,299,953</u>	<u>103,395,295</u>
Accumulated Benefit Obligation, End of Year	1,849,541,122	324,445,659	100,999,682
Weighted Average Assumptions Used in Determining Benefit Obligations			
Discount Rate	4.30%	4.30%	4.30%
Interest Crediting Rate	4.25%/4.00%	4.25%/4.00%	4.25%/4.00%
Rate of Compensation Increase	11.50% to 3.50%	11.50% to 3.50%	11.50% to 3.50%
Measurement Date(s)	12/31/2018	12/31/2018	12/31/2018
Change in Plan Assets			
Market Value of Assets, Beginning of Year	1,901,307,733	351,471,196	106,156,154
Business Combinations and Divestitures	0	0	0
Plan-to-Plan Transfers	0	0	0
Payroll Company Transfers	16,059,603	0	0
Actual Return on Assets (Net of Expenses)	(73,088,288)	(12,953,203)	(3,939,569)
Plan Participants' Contributions	0	0	0
Employer Contributions	39,916,278	420,897	72,080
Benefits Paid	(113,183,282)	(28,902,466)	(7,995,882)
Market Value of Assets, End of Year	<u>1,771,012,044</u>	<u>310,038,423</u>	<u>94,292,782</u>
Funded Status, End of Year	(89,204,409)	(20,263,530)	(9,102,513)
Amounts Recognized in the Statement of Financial Position			
Noncurrent Assets	(89,204,409)	(20,263,530)	(9,102,513)
Current Liabilities	0	0	0
Noncurrent Liabilities	0	0	0
Net Benefit Asset/(Liability) at End of Year	<u>(89,204,409)</u>	<u>(20,263,530)</u>	<u>(9,102,513)</u>
Amounts Recognized in Accumulated Other Comprehensive Income			
Net Transition Obligation/(Asset)	0	0	0
Prior Service Cost/(Credit)	(38,993,960)	(2,263,634)	(628,879)
Net Actuarial Loss/(Gain)	550,723,215	76,812,144	26,198,945
Total	<u>511,729,255</u>	<u>74,548,510</u>	<u>25,570,066</u>
EXPECTED CASH FLOWS			
Expected Employer Benefit Payments (Net of Part D Subsidy)			
2019	146,687,389	26,656,095	6,639,809
2020	164,189,909	28,365,802	8,144,110
2021	167,627,442	27,825,289	8,710,282
2022	161,981,476	27,351,282	8,309,899
2023	161,033,150	26,609,765	7,982,623
2024-2028	718,473,588	120,363,875	37,731,695
Expected Company Contributions	0	0	0

Duke Energy Corporation

Components of Net Periodic Benefit Cost			
Service Cost	48,086,590	3,041,051	1,387,277
Expected Administrative Expenses	1,750,075	334,189	99,874
Interest Cost	69,982,335	12,813,059	4,134,310
Expected Return on Plan Assets	(117,446,836)	(21,263,055)	(6,472,854)
Amortization of Net Transition Obligation/(Asset)	0	0	0
Amortization of Prior Service Cost/(Credit)	(7,985,089)	(358,630)	(99,881)
Amortization of Net Actuarial Loss/(Gain)	31,922,974	3,574,831	1,663,931
Settlement and Special Termination Benefit Charge/(Credit)	0	0	0
Net Periodic Benefit Cost	24,310,049	(2,058,575)	712,477
Presentation of Benefit Cost Pursuant to ASC 715-20			
Employer service cost, including administrative expenses	47,816,865	3,375,220	1,486,951
Other components of net periodic benefit cost	(23,506,816)	(5,433,795)	(774,474)
Other adjustments to benefit cost	0	0	0
Disclosed benefit cost	24,310,049	(2,058,575)	712,477
Other Changes in Plan Assets and Benefit Obligation Recognized in Other Comprehensive Income			
Business Combinations/Divestitures - Net Actuarial Loss/(Gain)	9,009,898	0	0
Business Combinations/Divestitures - Prior Service Cost/(Credit)	55,161	0	0
Goodwill Adjustments	0	0	0
Net Actuarial Loss/(Gain)	51,992,278	15,885,549	(794,050)
Amortization of Net Actuarial (Loss)/Gain	(31,922,974)	(3,574,831)	(1,663,931)
Prior Service Cost/(Credit)	0	0	0
Amortization of Prior Service (Cost)/Credit	7,985,089	358,630	99,881
Amortization of Net Transition (Obligation)/Asset	0	0	0
Total Recognized in Other Comprehensive Income	37,099,452	12,649,348	(2,358,120)
Total Recognized in Net Periodic Benefit Cost and Other Comprehensive Income	61,409,501	10,590,773	(1,645,643)
Estimate of Amounts that will be Amortized Out of Accumulated Other Comprehensive Income into Net Periodic Benefit Cost in 2019			
Net Transition Obligation/(Asset)	0	0	0
Prior Service Cost/(Credit)	(8,651,813)	(358,630)	(99,881)
Net Actuarial Loss/(Gain)	20,117,708	2,374,823	874,820
Total	11,465,895	2,015,993	774,759
Weighted Average Assumptions Used in Determining Cost			
Discount Rate	3.80%	3.80%	3.60%
Interest Crediting Rate	4.00%/4.00%	4.00%/4.00%	4.00%/4.00%
Expected Return on Plan Assets	6.50%	6.50%	6.50%
Rate of Future Compensation Increases	11.50% to 3.50%	11.50% to 3.50%	11.50% to 3.50%
Measurement Date(s)	12/31/2017	12/31/2017	12/31/2017

All Legacy Nonqualified Plans

Payroll Company	Duke Energy Business		
	Services 110	Duke Energy Ohio 603	Duke Energy Kentucky 538
Change in Benefit Obligation			
Benefit Obligation, Beginning of Year	169,714,303	3,749,394	141,008
Business Combinations and Divestitures	0	0	0
Plan-to-Plan Transfers	0	0	0
Payroll Company Transfers	0	0	0
Service Cost	1,379,017	0	0
Interest Cost	5,964,901	129,475	4,888
Gross Benefits Paid	(11,597,436)	(318,055)	(10,571)
Plan Participants' Contributions	0	0	0
Actuarial Loss/(Gain)	(8,255,406)	(132,993)	(6,424)
Plan Amendments	0	0	0
Impact of Settlements and Curtailments	0	0	0
Benefit Obligation, End of Year	157,205,380	3,427,821	128,901
Accumulated Benefit Obligation, End of Year	157,205,380	3,427,821	128,901
Weighted Average Assumptions Used in Determining Benefit Obligations			
Discount Rate	4.30%	4.30%	4.30%
Interest Crediting Rate	4.25%/4.00%	4.25%/4.00%	4.25%/4.00%
Rate of Compensation Increase	N/A	N/A	N/A
Measurement Date(s)	12/31/2018	12/31/2018	12/31/2018
Change in Plan Assets			
Market Value of Assets, Beginning of Year	0	0	0
Business Combinations and Divestitures	0	0	0
Plan-to-Plan Transfers	0	0	0
Payroll Company Transfers	0	0	0
Actual Return on Assets (Net of Expenses)	0	0	0
Plan Participants' Contributions	0	0	0
Employer Contributions	11,597,436	318,055	10,571
Benefits Paid	(11,597,436)	(318,055)	(10,571)
Market Value of Assets, End of Year	0	0	0
Funded Status, End of Year	(157,205,380)	(3,427,821)	(128,901)
Amounts Recognized in the Statement of Financial Position			
Noncurrent Assets	0	0	0
Current Liabilities	(9,313,301)	(301,653)	(10,340)
Noncurrent Liabilities	(147,892,079)	(3,126,168)	(118,561)
Net Benefit Asset/(Liability) at End of Year	(157,205,380)	(3,427,821)	(128,901)
Amounts Recognized in Accumulated Other Comprehensive Income			
Net Transition Obligation/(Asset)	0	0	0
Prior Service Cost/(Credit)	(3,784,918)	(792)	0
Net Actuarial Loss/(Gain)	46,344,670	581,722	41,616
Total	42,559,752	580,930	41,616
EXPECTED CASH FLOWS			
Expected Employer Benefit Payments (Net of Part D Subsidy)			
2019	9,511,429	308,070	10,560
2020	9,091,405	304,812	10,541
2021	11,279,503	300,811	10,508
2022	13,770,474	295,968	10,458
2023	12,203,461	290,184	10,389
2024-2028	67,484,100	1,326,178	49,893
Expected Company Contributions	9,511,429	308,070	10,560

Duke Energy Corporation

Components of Net Periodic Benefit Cost

Service Cost	1,379,017	0	0
Expected Administrative Expenses	0	0	0
Interest Cost	5,964,901	129,475	4,888
Expected Return on Plan Assets	0	0	0
Amortization of Net Transition Obligation/(Asset)	0	0	0
Amortization of Prior Service Cost/(Credit)	(1,311,307)	(1,058)	0
Amortization of Net Actuarial Loss/(Gain)	4,801,729	61,524	4,135
Settlement and Special Termination Benefit Charge/(Credit)	0	0	0
Net Periodic Benefit Cost	<u>10,834,340</u>	<u>189,941</u>	<u>9,023</u>

Presentation of Benefit Cost Pursuant to ASC 716-20

Employer service cost, including administrative expenses	1,379,017	0	0
Other components of net periodic benefit cost	9,455,323	189,941	9,023
Other adjustments to benefit cost	0	0	0
Disclosed benefit cost	<u>10,834,340</u>	<u>189,941</u>	<u>9,023</u>

Other Changes in Plan Assets and Benefit Obligation Recognized in Other Comprehensive Income

Business Combinations/Divestitures - Net Actuarial Loss/(Gain)	0	0	0
Business Combinations/Divestitures - Prior Service Cost/(Credit)	0	0	0
Goodwill Adjustments	0	0	0
Net Actuarial Loss/(Gain)	(8,255,408)	(132,993)	(6,424)
Amortization of Net Actuarial (Loss)/Gain	(4,801,729)	(61,524)	(4,135)
Prior Service Cost/(Credit)	0	0	0
Amortization of Prior Service (Cost)/Credit	1,311,307	1,058	0
Amortization of Net Transition (Obligation)/Asset	0	0	0
Total Recognized in Other Comprehensive Income	<u>(11,745,828)</u>	<u>(193,458)</u>	<u>(10,559)</u>

Total Recognized in Net Periodic Benefit Cost and Other Comprehensive Income

(911,488)	(3,518)	(1,536)
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Estimate of Amounts that will be Amortized Out of Accumulated Other Comprehensive Income into Net Periodic Benefit Cost in 2019

Net Transition Obligation/(Asset)	0	0	0
Prior Service Cost/(Credit)	(1,281,305)	(792)	0
Net Actuarial Loss/(Gain)	<u>3,613,095</u>	<u>42,820</u>	<u>3,063</u>
Total	2,331,790	42,028	3,063

Weighted Average Assumptions

Used in Determining Cost

Discount Rate	3.60%	3.60%	3.60%
Interest Crediting Rate	4.00%/4.00%	4.00%/4.00%	4.00%/4.00%
Expected Return on Plan Assets	N/A	N/A	N/A
Rate of Future Compensation Increases	N/A	N/A	N/A
Measurement Date(s)	12/31/2017	12/31/2017	12/31/2017

All Legacy Welfare Plans

Payroll Company	Duke Energy Business Services 118	Duke Energy Ohio 803	Duke Energy Kentucky 838
Change in Benefit Obligation			
Benefit Obligation, Beginning of Year	123,825,608	24,253,933	6,050,852
Business Combinations and Divestitures	0	0	0
Plan-to-Plan Transfers	0	0	0
Payroll Company Transfers	678,976	0	0
Service Cost	1,782,753	305,824	202,104
Interest Cost	4,286,180	837,751	209,688
Gross Benefits Paid	(15,609,831)	(1,767,608)	(821,859)
less: federal subsidy on benefits paid	148,325	64,284	202,673
Plan Participants' Contributions	5,355,603	388,357	211,177
Actuarial Loss/(Gain)	(11,458,270)	(2,094,164)	(899,143)
Plan Amendments	0	0	0
Impact of Settlements and Curtailments	0	0	0
Benefit Obligation, End of Year	109,009,844	21,969,379	5,555,492
Accumulated Benefit Obligation, End of Year	0	0	0
Weighted Average Assumptions Used in Determining Benefit Obligations			
Discount Rate	4.30%	4.30%	4.30%
Interest Crediting Rate	N/A	N/A	N/A
Rate of Compensation Increase	N/A	N/A	N/A
Health Care Cost Trend Rate			
Initial rate	6.50%	6.50%	6.50%
Ultimate rate	4.75%	4.75%	4.75%
Years to ultimate	5	5	5
Measurement Date(s)	12/31/2018	12/31/2018	12/31/2018
Effect of one-percentage-point change in assumed health care cost trend rate on postretirement benefit obligation			
- Increase	N/A	N/A	N/A
- Decrease	N/A	N/A	N/A
Change in Plan Assets			
Market Value of Assets, Beginning of Year	35,732,639	5,658,582	1,431,637
Business Combinations and Divestitures	0	0	0
Plan-to-Plan Transfers	0	0	0
Payroll Company Transfers	853,518	0	0
Actual Return on Assets (Net of Expenses)	(1,144,056)	(222,470)	(52,129)
Plan Participants' Contributions	5,355,603	388,357	211,177
Employer Contributions	8,021,384	1,112,567	381,776
Benefits Paid	(15,609,631)	(1,767,608)	(821,859)
Market Value of Assets, End of Year	33,009,437	5,149,430	1,350,602
Funded Status, End of Year	(76,000,407)	(16,818,949)	(4,204,890)
Amounts Recognized in the Statement of Financial Position			
Noncurrent Assets	0	0	0
Current Liabilities	(618,781)	(1,524,800)	(161,908)
Noncurrent Liabilities	(75,381,626)	(15,294,349)	(4,042,892)
Net Benefit Asset/(Liability) at End of Year	(76,000,407)	(16,818,949)	(4,204,890)
Amounts Recognized in Accumulated Other Comprehensive Income			
Net Transition Obligation/(Asset)	0	0	0
Prior Service Cost/(Credit)	(17,498,550)	(1,505,787)	(799,718)
Net Actuarial Loss/(Gain)	(12,892,328)	(10,885,736)	(4,405,821)
Total	(30,489,878)	(12,471,523)	(5,205,837)

Duke Energy Corporation

EXPECTED CASH FLOWS

Expected Employer Benefit Payments			
2019	14,047,113	2,545,654	938,885
2020	12,111,482	2,436,262	735,328
2021	11,210,107	2,306,201	655,344
2022	10,438,459	2,221,275	630,439
2023	9,743,243	2,136,526	584,197
2024-2028	38,541,064	9,048,409	2,179,485

Expected Company Contributions	3,143,965	1,557,034	165,352
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Expected Subsidies from Medicare Part D

2019	N/A	N/A	N/A
2020	N/A	N/A	N/A
2021	N/A	N/A	N/A
2022	N/A	N/A	N/A
2023	N/A	N/A	N/A
2024-2028	N/A	N/A	N/A

Components of Net Periodic Benefit Cost

Service Cost	1,782,753	305,824	202,104
Expected Administrative Expenses	0	0	0
Interest Cost	4,288,180	837,751	209,688
Expected Return on Plan Assets	(1,828,735)	(329,144)	(68,721)
Amortization of Net Transition Obligation/(Asset)	0	0	0
Amortization of Prior Service Cost/(Credit)	(3,177,038)	(455,837)	(236,251)
Amortization of Net Actuarial Loss/(Gain)	760,903	313,093	30,942
Curtailment Charge/(Credit)	0	0	0
Net Periodic Benefit Cost	1,824,063	671,687	137,762

Presentation of Benefit Cost Pursuant to ASC 716-20

Employer service cost, including administrative expenses	1,782,753	305,824	202,104
Other components of net periodic benefit cost	41,310	365,863	(64,342)
Other adjustments to benefit cost	0	0	0
Disclosed benefit cost	1,824,063	671,687	137,762

Other Changes in Plan Assets and Benefit Obligation Recognized in Other Comprehensive Income

Business Combinations/Divestitures - Net Actuarial Loss/(Gain)	158,310	0	0
Business Combinations/Divestitures - Prior Service Cost/(Credit)	(488,275)	0	0
Goodwill Adjustments	0	0	0
Net Actuarial Loss/(Gain)	(8,485,479)	(1,542,550)	(578,293)
Amortization of Net Actuarial (Loss)/Gain	(760,903)	(313,093)	(30,942)
Prior Service Cost/(Credit)	0	0	0
Amortization of Prior Service (Cost)/Credit	3,177,038	455,837	236,251
Amortization of Net Transition (Obligation)/Asset	0	0	0
Total Recognized in Other Comprehensive Income	(6,399,309)	(1,399,806)	(372,984)

Total Recognized in Net Periodic Benefit Cost and Other Comprehensive Income	(4,575,248)	(728,119)	(235,222)
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Estimate of Amounts that will be Amortized Out of Accumulated Other Comprehensive Income into Net Periodic Benefit Cost in 2019

Net Transition Obligation/(Asset)	0	0	0
Prior Service Cost/(Credit)	(3,301,170)	(455,837)	(236,251)
Net Actuarial Loss/(Gain)	513,796	180,855	15,107
Total	(2,787,374)	(295,182)	(221,144)

Weighted Average Assumptions

Used in Determining Cost

Discount Rate	3.60%	3.60%	3.60%
Interest Crediting Rate	N/A	N/A	N/A
Expected Return on Plan Assets	6.50%	6.50%	6.50%
Rate of Future Compensation Increases	N/A	N/A	N/A
Medical Trend Rate	0	0	0
Initial rate	7.00%	7.00%	7.00%
Ultimate rate	4.75%	4.75%	4.75%
Years to ultimate	6	6	6
Measurement Date(s)	12/31/2017	12/31/2017	12/31/2017

Effect of one-percentage-point change in assumed health care cost trend rate on aggregate service and interest cost

- Increase	N/A	N/A	N/A
- Decrease	N/A	N/A	N/A

Section 2: Fiscal 2019 Net Periodic Benefit Cost for Duke Energy Ohio and Kentucky

All Legacy Qualified Plans

	Duke Energy Business Services 110	Duke Energy Ohio 503	Duke Energy Kentucky 536
Funded Status, 1/1/2019			
Benefit Obligation	\$ (1,860,216,453)	\$ (330,299,953)	\$ (103,395,295)
Fair Value of Assets	1,771,012,044	310,036,423	94,292,782
Funded Status	\$ (89,204,409)	\$ (20,263,530)	\$ (9,102,513)
Unrecognized Items:			
Transition (Asset)/Liability	\$ 0	\$ 0	\$ 0
Prior Service (Credit)/Cost	(38,993,960)	(2,263,634)	(628,879)
Unrecognized (Gain)/Loss	550,723,215	76,812,144	26,198,945
Total Amount Unrecognized	\$ 511,729,255	\$ 74,548,510	\$ 25,570,066
Components of Benefit Cost, Fiscal 2019			
Amortization of:			
Service Cost	\$ 37,903,821	\$ 2,447,279	\$ 1,005,719
Expected Administrative Expenses	1,717,233	327,999	96,922
Interest Cost	78,498,587	13,741,056	4,347,988
Expected Return on Assets	(124,025,511)	(21,669,720)	(6,642,220)
Amortization of:			
- Transition (Asset)/Obligation	0	0	0
- Prior Service (Credit)/Cost	(7,954,900)	(358,630)	(99,861)
- Unrecognized (Gain)/Loss	20,117,708	2,374,623	874,620
Cost of curtailments	0	0	0
Cost of settlements	0	0	0
Cost of special/contractual termination benefits	0	0	0
Net Periodic Benefit Cost - Before Purchase Accounting Adjustment	\$ 6,258,938	\$ (3,137,393)	\$ (416,832)
Purchase Accounting Adjustment	0	1,480,625	267,583
Net Periodic Benefit Cost - After Purchase Accounting Adjustment	\$ 6,258,938	\$ (1,656,768)	\$ (149,249)
Presentation of Benefit Cost Pursuant to ASC 715-20			
Employer service cost, including administrative expenses	\$ 39,621,054	\$ 2,775,278	\$ 1,102,641
Other components of net periodic benefit cost ¹	(33,364,116)	(4,432,046)	(1,251,890)
Other adjustments to benefit cost	0	0	0
Disclosed benefit cost	\$ 6,256,938	\$ (1,656,768)	\$ (149,249)
Key Assumptions			
Measurement Date	December 31, 2018	December 31, 2018	December 31, 2018
Discount Rate	4.30%	4.30%	4.30%
Interest Crediting Rate	4.25%/4.00%	4.25%/4.00%	4.25%/4.00%
Long Term Rate of Return on Assets	6.85%	6.85%	6.85%
Salary Scale	11.50% to 3.50%	11.50% to 3.50%	11.50% to 3.50%
Expected Contributions	\$ 0	\$ 0	\$ 0
Other Information			
Expected (Net) Benefit Payments	\$ 146,687,369	\$ 26,656,095	\$ 6,639,909
Market-Related Value of Assets (MRVA)	\$ 1,883,564,739	\$ 329,614,854	\$ 100,279,339
Sum of Service Cost, Admin Expenses, Interest Cost and EROA	\$ (5,905,870)	\$ (5,153,386)	\$ (1,191,591)
Sum of Amortization Payments	\$ 12,162,808	\$ 2,015,993	\$ 774,759

¹ Includes Purchase Accounting Adjustment

Duke Energy Corporation

All Legacy Nonqualified Plans

	Duke Energy Business Services 110	Duke Energy Ohio 503	Duke Energy Kentucky 536
Funded Status, 1/1/2019			
Benefit Obligation	\$ (157,205,380)	\$ (3,427,821)	\$ (128,901)
Fair Value of Assets	0	0	0
Funded Status	\$ (157,205,380)	\$ (3,427,821)	\$ (128,901)
Unrecognized Items:			
Transition (Asset)/Liability	\$ 0	\$ 0	\$ 0
Prior Service (Credit)/Cost	(3,784,918)	(792)	0
Unrecognized (Gain)/Loss	46,344,670	581,722	41,616
Total Amount Unrecognized	\$ 42,559,752	\$ 580,930	\$ 41,616
Components of Benefit Cost, Fiscal 2019			
Amortization of:			
Service Cost	\$ 1,372,305	\$ 0	\$ 0
Expected Administrative Expenses	0	0	0
Interest Cost	6,616,496	140,842	5,318
Expected Return on Assets	0	0	0
Amortization of:			
- Transition (Asset)/Obligation	0	0	0
- Prior Service (Credit)/Cost	(1,281,305)	(792)	0
- Unrecognized (Gain)/Loss	3,613,095	42,820	3,063
Cost of curtailments	0	0	0
Cost of settlements	0	0	0
Cost of special/contractual termination benefits	0	0	0
Net Periodic Benefit Cost - Before Purchase Accounting Adjustment	\$ 10,320,591	\$ 182,870	\$ 8,381
Purchase Accounting Adjustment	0	0	0
Net Periodic Benefit Cost - After Purchase Accounting Adjustment	\$ 10,320,591	\$ 182,870	\$ 8,381
Presentation of Benefit Cost Pursuant to ASC 715-20			
Employer service cost, including administrative expenses	\$ 1,372,305	\$ 0	\$ 0
Other components of net periodic benefit cost ¹	8,948,286	182,870	8,381
Other adjustments to benefit cost	0	0	0
Disclosed benefit cost	\$ 10,320,591	\$ 182,870	\$ 8,381
Key Assumptions			
Measurement Date	December 31, 2018	December 31, 2018	December 31, 2018
Discount Rate	4.30%	4.30%	4.30%
Interest Crediting Rate	4.25%/4.00%	4.25%/4.00%	4.25%/4.00%
Long Term Rate of Return on Assets	N/A	N/A	N/A
Salary Scale	N/A	N/A	N/A
Expected Contributions	\$ 9,511,429	\$ 308,070	\$ 10,560
Other Information			
Expected (Net) Benefit Payments	\$ 9,511,429	\$ 308,070	\$ 10,560
Market-Related Value of Assets (MRVA)	\$ 0	\$ 0	\$ 0
Sum of Service Cost, Admin Expenses, Interest Cost and EROA	\$ 7,988,801	\$ 140,842	\$ 5,318
Sum of Amortization Payments	\$ 2,331,790	\$ 42,028	\$ 3,063

¹ Includes Purchase Accounting Adjustment

All Legacy Welfare Plans

	Duke Energy Business Services 110	Duke Energy Ohio 503	Duke Energy Kentucky 536
Funded Status, 1/1/2019			
Benefit Obligation	\$ (109,009,844)	\$ (21,968,379)	\$ (5,555,492)
Fair Value of Assets	33,009,437	5,149,430	1,350,602
Funded Status	\$ (76,000,407)	\$ (16,818,949)	\$ (4,204,890)
Unrecognized Items:			
Transition (Asset)/Liability	\$ 0	\$ 0	\$ 0
Prior Service (Credit)/Cost	(17,498,550)	(1,505,787)	(799,716)
Unrecognized (Gain)/Loss	(12,962,328)	(10,965,736)	(4,405,921)
Total Amount Unrecognized	\$ (30,460,878)	\$ (12,471,523)	\$ (5,205,637)
Components of Benefit Cost, Fiscal 2019			
Amortization of:			
Service Cost	\$ 1,387,414	\$ 261,430	\$ 150,381
Expected Administrative Expenses	0	0	0
Interest Cost	4,448,248	901,727	225,378
Expected Return on Assets	(1,896,297)	(342,897)	(72,614)
Amortization of:			
- Transition (Asset)/Obligation	0	0	0
- Prior Service (Credit)/Cost	(3,301,170)	(455,837)	(236,251)
- Unrecognized (Gain)/Loss	513,796	160,655	15,107
Cost of curtailments	0	0	0
Cost of settlements	0	0	0
Cost of special/contractual termination benefits	0	0	0
Net Periodic Benefit Cost - Excluding Purchase Accounting Adjustment	\$ 1,151,991	\$ 525,078	\$ 82,001
Purchase Accounting Adjustment	0	1,423,835	231,739
Net Periodic Benefit Cost - Including Purchase Accounting Adjustment	\$ 1,151,991	\$ 1,948,913	\$ 313,740
Presentation of Benefit Cost Pursuant to ASC 715-20			
Employer service cost, including administrative expenses	\$ 1,387,414	\$ 261,430	\$ 150,381
Other components of net periodic benefit cost ¹	(235,423)	1,687,483	163,359
Other adjustments to benefit cost	0	0	0
Disclosed benefit cost	\$ 1,151,991	\$ 1,948,913	\$ 313,740
Key Assumptions			
Measurement Date	December 31, 2018	December 31, 2018	December 31, 2018
Discount Rate	4.30%	4.30%	4.30%
Interest Crediting Rate	N/A	N/A	N/A
Long Term Rate of Return on Assets - 401(h) / Union VEBA	6.85% / 6.50%	6.85% / 6.50%	6.85% / 6.50%
Long Term Rate of Return on Assets - Non-Union VEBA / VEBA	4.225% / 5.25%	4.225% / 5.25%	4.225% / 5.25%
Salary Scale	N/A	N/A	N/A
Health Care Cost Trend Rate	6.50%-->4.75%	6.50%-->4.75%	6.50%-->4.75%
Expected Contributions	\$ 3,143,965	\$ 1,557,034	\$ 165,352
Other Information			
Expected (Net) Benefit Payments	\$ 14,047,113	\$ 2,545,654	\$ 938,895
Market-Related Value of Assets (MRVA)	\$ 35,126,207	\$ 5,491,916	\$ 1,440,430
Sum of Service Cost, Admin Expenses, Interest Cost and EROA	\$ 3,939,365	\$ 820,260	\$ 303,145
Sum of Amortization Payments	\$ (2,787,374)	\$ (295,182)	\$ (221,144)

¹ Includes Purchase Accounting Adjustment

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

PUBLIC AG-DR-01-038
(As to Attachment 2 only)

REQUEST:

Provide the pension and OPEB actuarial reports for Duke Energy, DEO, and the Company and/or other support for the test year pension expense and OPEB expense included in the test year.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET (As to Attachment 2 only)

See AG-DR-01-038 Attachment 1 for the test year pension and OPEB expense for Duke Energy Business Services, Duke Energy Ohio, and Duke Energy Kentucky. The numbers provided for Duke Energy Kentucky and Duke Energy Ohio are total electric and gas. The electric/gas percentage splits are supplied below:

Company	Electric	Gas
DEK	75.87%	24.13%
DEO	73.68%	26.32%

See AG-DR-01-038 Confidential Attachment 2 – Five-year Forecast Summary (All Plans) for support. This confidential attachment will be provided to all parties upon the execution of a Confidentiality Agreement.

PERSON RESPONSIBLE: Renee H. Metzler

REQUEST: Provide the pension and OPEB actuarial reports for Duke Energy, DEO, and the Company and/or other support for the test year pension expense and OPEB expense included in the test year.

Pay Co Name	Category 1	Desc	Values					Total
			2020 Budget	2021 Budget	Test period: 4/1/20 - 3/31/21			
			4/1/20 - 12/31/20	1/1/21 - 3/31/21	4/1/20 - 12/31/20	1/1/21 - 3/31/21		
Duke Energy Business Services	Qualified Pension	- Service Cost	\$ 40,925,719	\$ 39,161,008	\$ 30,694,289	\$ 9,790,252	\$ 40,484,541	
		- Non-Service Cost	\$ (29,802,447)	\$ (29,717,910)	\$ (22,351,835)	\$ (7,429,478)	\$ (29,781,313)	
		- Settlement Charge	\$ -	\$ -	\$ -	\$ -	\$ -	
	Qualified Pension Total	\$ 11,123,272	\$ 9,443,098	\$ 8,342,454	\$ 2,360,774	\$ 10,703,228		
Duke Energy Business Services Total	OPEB	- Service Cost	\$ 1,278,272	\$ 1,116,338	\$ 958,704	\$ 279,085	\$ 1,237,789	
		- Non-Service Cost	\$ 1,073,322	\$ 1,486,983	\$ 804,992	\$ 371,746	\$ 1,176,737	
		OPEB Total	\$ 2,351,594	\$ 2,603,321	\$ 1,763,696	\$ 650,830	\$ 2,414,526	
Duke Energy Kentucky	Qualified Pension	- Service Cost	\$ 13,474,866	\$ 12,046,419	\$ 10,106,149	\$ 3,011,605	\$ 13,117,754	
		- Non-Service Cost	\$ 1,277,890	\$ 1,225,910	\$ 958,417	\$ 306,477	\$ 1,264,895	
		- Settlement Charge	\$ (1,172,096)	\$ (1,287,152)	\$ (879,072)	\$ (321,788)	\$ (1,200,860)	
	Qualified Pension Total	\$ 105,794	\$ (61,242)	\$ 79,345	\$ (15,311)	\$ 64,035		
Duke Energy Kentucky Total	OPEB	- Service Cost	\$ 134,971	\$ 117,595	\$ 101,228	\$ 29,399	\$ 130,627	
		- Non-Service Cost	\$ 215,429	\$ 232,408	\$ 161,572	\$ 58,102	\$ 219,674	
		OPEB Total	\$ 350,400	\$ 350,003	\$ 262,800	\$ 87,501	\$ 350,301	
Duke Energy Ohio	Qualified Pension	- Service Cost	\$ 456,194	\$ 288,761	\$ 342,145	\$ 72,190	\$ 414,336	
		- Non-Service Cost	\$ 2,821,471	\$ 2,711,350	\$ 2,116,103	\$ 677,837	\$ 2,793,940	
		- Settlement Charge	\$ (4,775,764)	\$ (5,158,973)	\$ (3,581,823)	\$ (1,289,743)	\$ (4,871,566)	
	Qualified Pension Total	\$ (1,954,293)	\$ (2,447,623)	\$ (1,465,720)	\$ (611,906)	\$ (2,077,626)		
Duke Energy Ohio Total	OPEB	- Service Cost	\$ 217,771	\$ 189,735	\$ 163,328	\$ 47,434	\$ 210,762	
		- Non-Service Cost	\$ 1,562,091	\$ 1,451,070	\$ 1,171,568	\$ 362,768	\$ 1,534,336	
		OPEB Total	\$ 1,779,862	\$ 1,640,805	\$ 1,334,897	\$ 410,201	\$ 1,745,098	
	Qualified Pension Total	\$ (174,431)	\$ (805,818)	\$ (130,824)	\$ (201,705)	\$ (332,528)		

2019-00271

AG-DR-01-038

**CONFIDENTIAL
ATTACHMENT 2
IS BEING FILED
UNDER SEAL**

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

PUBLIC AG-DR-01-039
(As to Attachment 1 only)

REQUEST:

Provide a schedule showing per books actual O&M expenses and by FERC O&M/A&G expense account/subaccount for 2017, 2018, through the most recent month in 2019 and projected for the test year. Further, show the amounts separated into costs incurred directly by DEK, charges from DEO, charges from DEBS, charges from any other affiliates, less any charges from DEK to any other affiliate.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET (As to Attachment 1 only)

Please see AG-DR-01-039 Confidential Attachment 1 for actual expense in 2017, 2018, and through the most recent month in 2019. Please See AG-DR-01-039 Attachment 2 for projected test period expenses. These attachments contain expense accounts that have been eliminated for ratemaking purposes in various Schedule D adjustments. Confidential Attachment 1 will be provided to all parties upon the execution of a Confidentiality Agreement.

In the process of responding to this discovery question, the Company discovered that it had inadvertently excluded \$914,966 of intercompany A&G rent expense in Account 931008, from the test period.

PERSON RESPONSIBLE:

Danielle Weatherston – as to actuals
Christopher M. Jacobi – as to forecasted test period

CONFIDENTIAL PROPRIETARY TRADE SECRET

Duke Energy Kentucky - Electric Only
Schedule of O&M Costs by Source
For the Calendar Year 2017

Table with columns for Account, Source, and 12 monthly Sum of (Jan-Dec) 2017, plus a Total column. Rows include categories such as 0513100 - Maint of Boiler Plant-Other, 0514000 - Maint of Electric-Other, etc.

CONFIDENTIAL PROPRIETARY TRADE SECRET

Duke Energy Kentucky, Electric Only
 Schedule of O&M Costs by Source
 For the Calendar Year 2017

Account	Sum of Jan 2017	Sum of Feb 2017	Sum of Mar 2017	Sum of Apr 2017	Sum of May 2017	Sum of Jun 2017	Sum of Jul 2017	Sum of Aug 2017	Sum of Sep 2017	Sum of Oct 2017	Sum of Nov 2017	Sum of Dec 2017	Totals
0920000 - A & G Salaries	109,882.64	110,726.86	125,855.27	120,091.55	114,284.26	116,376.47	106,821.10	89,316.99	116,145.51	133,229.79	118,077.09	81,809.54	1,251,085.55
0921000 - Salaries & Wages - Proj Supt.	3,584.64	4,391.54	17,982.15	5,545.41	8,264.17	5,857.27	5,448.04	4,520.90	5,145.01	8,161.59	9,009.57	23.69	96.46
0921100 - Office Expenses	3,742.20	84.13	1,129.33	14,101.55	3,301.87	3,700.65	492.36	604.76	11,787.89	5,155.30	1,698.56	13,818.93	78,109.83
0921180 - Telephone And Telegraph Exp	2.37	6.26	13.33	13.33	13.33	13.33	13.33	0.56	11,787.89	5,155.30	1,698.56	13,818.93	45,796.60
0921800 - Computer Services Expenses	744.75	975.39	15,970.47	3,527.05	812.92	429.31	61.43	284.85	(14,980.36)	2,842.28	87.04	160.98	10,754.53
0921860 - Other	15.64	16.82	27.47	84.12	9.01	3.41	11.03	4.22	167.13	13.91	23.61	16.27	376.37
0923000 - Office Supplies & Expenses	5,768.74	15,827.41	25,259.62	15,554.92	(25,241.88)	8,940.38	16,842.56	26,832.97	(8,672.69)	12,619.80	15,992.28	(10,136.53)	109,574.11
0925000 - Outside Services Employed						886.47	126.79	4,578.48			10.00		5,601.74
0925000 - Injuries & Damages	7.36		9.34		7.35	2.51	1,029.49	(375.39)		140.75	0.82	2.70	822.23
0925000 - Employee Benefits									1.31				1.31
0925430 - Employees Recreation Expense													33.67
0925600 - Employee Benefits-Transferred	36,102.57	33,477.07	45,496.71	38,227.88	37,790.06	40,554.66	46,204.53	30,721.98	42,255.32	37,116.39	22,340.40	22,920.93	410,227.57
0926100 - Miscellaneous Advertising Exp	11.59	6.75	48.31	12.25	26.90	(63.72)	7.00	12.25					1,363.08
0926230 - Dues To Various Organizations			58.33						49.35				61.33
0926250 - Buy/Sell Transf Employee Homes	1,213.27		388.60	318.37	(237.53)	552.95	1,130.82	387.19	668.48	5,252.70	104.10		750.00
0926600 - Leased Circuit Charges-Other	45.04	8.38	15.10			10.05	36.62	87.50	(6.78)	48.36	46.22	93.74	33.62
0926940 - Research & Development		48.72	46.80	27.59	75.88	10.05	36.62	87.50					107.68
0931001 - General Expenses	3,546.47	3,547.72	4,249.35	3,543.37	3,551.61	3,548.78	3,600.47	3,546.47	3,547.43	3,546.57	3,880.24	3,807.18	466.00
Other Total	840,302.17	839,973.50	1,044,791.97	928,035.47	1,139,531.85	927,510.06	1,259,755.92	766,548.70	1,050,206.66	943,187.91	541,214.76	966,128.97	10,297,278.87
Grand Total	8,607,340.53	8,311,676.13	11,256,764.37	9,584,370.27	11,139,794.67	9,482,677.30	9,432,791.03	9,060,719.09	9,449,138.31	9,544,589.42	8,288,002.49	9,516,322.59	104,957,882.61

CONFIDENTIAL PROPRIETARY TRADE SECRET

Duke Energy Kentucky - Electric Only
Schedule of Cost Allocations by Source
For the Calendar Year 2018

Table with columns: Account, Sum of Jan 2018, Sum of Feb 2018, Sum of Mar 2018, Sum of Apr 2018, Sum of May 2018, Sum of Jun 2018, Sum of Jul 2018, Sum of Aug 2018, Sum of Sep 2018, Sum of Oct 2018, Sum of Nov 2018, Sum of Dec 2018, Totals. Rows include account numbers and descriptions such as 050000 - Supervision and Engin... and 050150 - Coal and Other Fuel Handling.

Duke Energy Kentucky - Electric Only
Schedule of O&M Costs by Source
For the test period April 2020 - March 2021

Account	DEK	DEO	DEBS	Other Affiliates	Total
0500000	201,009		3,551,822		3,752,831
0501110	69,699,272				69,699,272
0501150	1,375,886		116,890	191,570	1,684,345
0501180	(8,426)			8,981	555
0501190	37			11,635	11,672
0501996	4,758,126				4,758,126
0502020	663,436				663,436
0502040	10,785,100				10,785,100
0502100	4,187,621		304,471	18,545	4,510,636
0505000	587,863				587,863
0506000	1,185,483		873,353	45,537	2,104,373
0509030	721				721
0510000	77,006		2,653,621		2,730,627
0510100	(18)			(9,182)	(9,200)
0511000	4,475,994		123,133	4,037,056	8,636,182
0512100	11,138,159				11,138,159
0513100	2,350,008				2,350,008
0514000	506,617			21,010	527,627
0546000	67,991		291,683		359,674
0547150	30			11,175	11,205
0548100	13		6,152		6,165
0548200	446,126				446,126
0549000	122,123		306,421		428,544
0551000	8,425		284,625		293,050
0552000	325,847				325,847
0553000	445,537				445,537
0554000	151,775				151,775
0555202	30,511,471				30,511,471
0556000	284		116,019		116,303
0557000	(215,872)	95,661	3,514,293	3,549,990	6,944,071
0557450	81,060				81,060
0557980	72,527				72,527
0560000	406		162,518		162,924
0561100	257		103,912		104,169
0561200	(2,377)		243,572		241,195
0561300	276		111,353		111,629
0561400	1,203,000				1,203,000
0561800	2,012,211				2,012,211
0562000	47,293		56,049		103,342
0563000	79,040		17,852		96,892
0565000	756,770		18,275,067		19,031,837
0566000	65,552	155	238,652	33,951	338,310
0566100	15		5,640		5,655
0569000	7,246		31,231		38,477
0569200	(857)		119,386		118,529
0570100	55,813		133,034		188,847

Duke Energy Kentucky - Electric Only
Schedule of O&M Costs by Source
For the test period April 2020 - March 2021

Account	DEK	DEO	DEBS	Other Affiliates	Total
0571000	526,774		71,134		597,908
0575700	16,722		1,810,130		1,826,852
0580000	1,466		587,056		588,522
0581004	1,423		577,434		578,857
0582100	14,059		71,341		85,400
0583100	207,091				207,091
0583200	38,695			64,897	103,592
0584000	1,002,214			(24,867)	977,347
0586000	380,496	341,997		353,603	1,076,097
0587000	1,633,727	232,228		26,980	1,892,935
0588100	1,010,065	10,588	1,004,313	135,576	2,160,541
0588300	67,185				67,185
0590000	23,245		111,076		134,321
0591000	1,983		9,488		11,471
0592100	113,778		410,475		524,253
0593000	2,851,006		1,137,928	4,150	3,993,084
0593100	4,570,400				4,570,400
0594000	86,942				86,942
0595100	359,568				359,568
0596000	430,143				430,143
0903000	76,465	13,220	1,380,821	158,671	1,629,177
0903100	6,487	3,329	1,737,278	666,825	2,413,918
0903200	2,064	3,149	438,080	206,316	649,608
0903300	1,234	2,519	159,015	196,323	359,091
0903400	171		44,216	26,165	70,553
0904003	(67,864)		1,622,795		1,554,931
0908000	(4)		4		-
0910000	3,528		340,040	7,127	350,695
0910100	20,253		141,805	93,550	255,608
0912000	(44,838)	332,361	649,185	587,725	1,524,433
0913001	60		11,606	12,045	23,712
0920000	(2,309,111)		5,850,776	1,415,895	4,957,559
0920300	11		3,490		3,501
0921100	(39,658)		170,153	126,818	257,314
0921200	(150,639)		936,942	21,436	807,739
0921400	(243,007)		340,625	4,621	102,239
0921540	(536)		2,802	3,095	5,361
0921600	1		710		711
0921980	(25,051)		1,448,002		1,422,951
0923000	(256,592)		720,138	250,786	714,332
0923980	4		949		953
0924000	(0)		2,157		2,157
0924050	2,398		233,000		235,398
0924980	381		153,663		154,044
0925000	3,020		510,442		513,462
0925051	250,623				250,623

Duke Energy Kentucky - Electric Only
 Schedule of O&M Costs by Source
 For the test period April 2020 - March 2021

Account	DEK	DEO	DEBS	Other Affiliates	Total
0925980	41		17,029		17,070
0926000	282,780		4,416,033		4,698,813
0926600	(2,843,231)	101,290	3,332,268	627,037	1,217,364
0926999	2,024		(908,540)		(906,516)
0928006	133,548		694,152		827,700
0929500	(463,298)				(463,298)
0930150	136		54,087		54,223
0930200	580,482		372,852		953,334
0930220	-		59,500		59,500
0930230	31		24,559		24,590
0930240	78		56,610		56,688
0930250	(908)		1,493	1,140	1,725
0930700	2		1,041		1,043
0931001	90	2,434	39,325	29,184	71,033
Total	156,484,031	1,138,930	62,490,227	12,915,366	233,028,553

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

PUBLIC AG-DR-01-040
(As to Attachment (b) only)

REQUEST:

Refer to the response to the immediately preceding question.

a. Provide a schedule for each year that further details the charges from DEBS by FERC expense account/subaccount into directly assigned and allocated. For those charges that are allocated, provide the total DEBS expense, the allocation factor utilized, and the amount charged to DEK.

b. Provide a schedule for each year that further details the charges from DEO by FERC expense account/subaccount into directly assigned and allocated. For those charges that are allocated, provide the total DEO expense, the allocation factor utilized, and the amount charged to DEK.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET (As to Attachment (b) only)

a. Please see AG-DR-01-040(a) Attachment.

b. Please see AG-DR-01-040(b) Confidential Attachment. This confidential attachment will be provided to all parties upon the execution of a Confidentiality Agreement.

PERSON RESPONSIBLE:

Jeff Setser – a.
Danielle Weatherston – b.

BU Group DEK - Electric 2017

FERC AC	Allocated	Direct	Grand Total
0403	-	(2,428,948.50)	(2,428,948.50)
0407		(0.00)	(0.00)
0408	439,562.31	675,641.53	1,115,203.84
0415		(736,979.45)	(736,979.45)
0416		340,335.08	340,335.08
0417	(863.04)	85,875.90	85,012.86
0419	(79.08)		(79.08)
0421	(3,086.70)		(3,086.70)
0426	72,470.00	585,840.42	658,310.42
0431	115,895.46	266,045.34	381,940.80
0432	(279.79)		(279.79)
0442	-		-
0451		(23,742.91)	(23,742.91)
0454	(746.41)	(35,221.62)	(35,968.03)
0456		(1,988.87)	(1,988.87)
0457	-	(242,391.03)	(242,391.03)
0500	410,311.85	1,859,664.28	2,269,976.13
0501	221.34	71,538.52	71,759.86
0502	184,287.04	237,653.07	421,940.11
0506	224,317.80	856,406.67	1,080,724.47
0510	277,704.49	1,899,460.05	2,177,164.54
0511	8.90	43,846.72	43,855.62
0512	328.04	8,620.81	8,948.85
0513	17,836.13	37,526.24	55,362.37
0514	63.37	49,104.50	49,167.87
0520	11.00		11.00
0524	16.74		16.74
0532	4.37	(4.37)	-
0535	14.30	(14.30)	-
0539	0.52		0.52
0542	0.88	(0.88)	-
0543	-		-
0544	10.73		10.73
0546	2.10	311,187.67	311,189.77
0548		6,510.23	6,510.23
0549	796.47	311,161.40	311,957.87
0551	58.07	21,441.54	21,499.61
0552		624.33	624.33
0553		2,704.84	2,704.84
0556	10.00	1,236.27	1,246.27
0557	81.43	8,150,307.39	8,150,388.82
0560		2,627.89	2,627.89
0561	773.27	1,118,106.30	1,118,879.57

0562		63,827.52	63,827.52
0563		12,316.82	12,316.82
0565		12,076,077.96	12,076,077.96
0566	987.31	394,175.22	395,162.53
0569	525.38	104,247.74	104,773.12
0570		119,989.59	119,989.59
0571	133.60	81,481.11	81,614.71
0575		1,768,438.73	1,768,438.73
0580	0.14	44,623.66	44,623.80
0581	20.05	414,874.42	414,894.47
0582		145,132.86	145,132.86
0583		58,764.35	58,764.35
0584		54,278.93	54,278.93
0586	735.54	21,440.85	22,176.39
0587	656.52	58,568.51	59,225.03
0588	204,511.18	935,803.87	1,140,315.05
0589	0.31		0.31
0591		1,746.78	1,746.78
0592		157,507.26	157,507.26
0593	974.90	3,130,754.23	3,131,729.13
0594		373,645.72	373,645.72
0595		352,694.58	352,694.58
0596		418,242.53	418,242.53
0597		26,180.72	26,180.72
0880		4.03	4.03
0885	0.61	(0.61)	-
0901		5,240.50	5,240.50
0902		2,896.64	2,896.64
0903	1,625,169.65	1,873,477.89	3,498,647.54
0904	0.56	(60,617.51)	(60,616.95)
0905	108.22		108.22
0908	7.23		7.23
0909	4.09	4,624.78	4,628.87
0910	70,834.48	115,920.33	186,754.81
0911	39.93		39.93
0912	1,042.78	166,924.23	167,967.01
0913	2,865.57	31,725.98	34,591.55
0920	4,596,458.41	2,105,455.51	6,701,913.92
0921	2,819,761.08	511,504.15	3,331,265.23
0922	828.56		828.56
0923	1,677,761.25	467,834.91	2,145,596.16
0924	166,353.04		166,353.04
0925	26,744.08	42,997.28	69,741.36
0926	1,175,671.87	1,825,924.94	3,001,596.81
0928		698,688.19	698,688.19
0930	218,748.68	59,981.72	278,730.40
0931	239,271.17	822,219.70	1,061,490.87
0935	1,430.20	11,857.68	13,287.88
0999	492.36		492.36
Grand Total	14,571,870.34	42,975,649.36	57,547,519.70

BU Group DEK - Electric 2018

FERC AC	Allocated	Direct	Grand Total
403		429,861.84	429,861.84
408	448,656.08	668,256.37	1,116,912.45
415		(419,209.00)	(419,209.00)
416		93,745.90	93,745.90
417	(354.98)	82,215.38	81,860.40
419	13.14		13.14
421	1,188.93		1,188.93
426	95,273.25	444,726.33	539,999.58
431	291,931.71	248,841.10	540,772.81
432	377.05		377.05
451		(3,625.95)	(3,625.95)
454	(699.74)	(37,030.68)	(37,730.42)
456	238.03	(2.47)	235.56
457	0.06	(215,051.90)	(215,051.84)
489	0.32	(0.22)	0.10
500	405,700.82	1,884,747.48	2,290,448.30
501	133.74	97,245.58	97,379.32
502	83,571.22	273,770.35	357,341.57
505		10,151.15	10,151.15
506	205,048.95	894,862.83	1,099,911.78
510	268,379.86	2,085,869.63	2,354,249.49
511	1.81	41,699.52	41,701.33
512	413.01	49,813.84	50,226.85
513	18,870.75	141,209.23	160,079.98
514	36.46	326,715.17	326,751.63
524	132.42	(5.76)	126.66
528	7.19	(2.03)	5.16
539	4.69	3,555.37	3,560.06
546	1.39	301,866.87	301,868.26
548		4,045.35	4,045.35
549	1,261.04	257,232.47	258,493.51
551	71.51	123,351.73	123,423.24
552		6,355.09	6,355.09
553	18.96	3,289.85	3,308.81
554	15.81	1,848.91	1,864.72
556	31.28	1,428.45	1,459.73
557	921.47	2,925,681.53	2,926,603.00
560		2,517.93	2,517.93
561	781.00	3,103,194.40	3,103,975.40
562		79,916.30	79,916.30
563		18,191.74	18,191.74
565		13,263,634.03	13,263,634.03
566	379.58	374,075.39	374,454.97

569	72.60	158,905.22	158,977.82
570		151,232.06	151,232.06
571		57,856.23	57,856.23
573		434.85	434.85
575		1,680,832.82	1,680,832.82
580	0.47	41,914.63	41,915.10
581	100.56	343,165.45	343,266.01
582		48,876.57	48,876.57
583		126,940.36	126,940.36
584		46,996.07	46,996.07
586	228.35	5,173.43	5,401.78
587	90.56	49,185.88	49,276.44
588	342,697.64	1,085,604.29	1,428,301.93
590	3.99	70,678.16	70,682.15
591	2.07	4,623.53	4,625.60
592		187,363.76	187,363.76
593	10,080.59	1,158,317.45	1,168,398.04
594		123,529.37	123,529.37
595		152,999.86	152,999.86
596	166.48	331,253.56	331,420.04
597	121.50	30,327.75	30,449.25
598		4,729.23	4,729.23
823	-	-	-
852	7.23		7.23
870	13.36		13.36
880		3,273.82	3,273.82
901	42.84		42.84
902	3,236.84	9,331.75	12,568.59
903	2,460,687.98	1,460,846.70	3,921,534.68
904	0.07	(16,137.72)	(16,137.65)
905	103.07		103.07
908	19.04		19.04
909		8,765.82	8,765.82
910	59,960.34	77,226.27	137,186.61
911	910.09		910.09
912	1,162.80	186,259.97	187,422.77
913	3,777.29	4,950.01	8,727.30
920	5,104,676.11	2,167,101.94	7,271,778.05
921	2,988,453.50	494,495.60	3,482,949.10
922	292.30		292.30
923	1,420,305.27	516,397.94	1,936,703.21
924	155,262.34		155,262.34
925	23,221.45	114,534.44	137,755.89
926	1,374,553.58	2,189,595.69	3,564,149.27
928	350.23	682,063.21	682,413.44
930	228,479.77	154,086.92	382,566.69
931	164,676.95	933,382.60	1,098,059.55
932	0.94		0.94
935	6,863.42	1,579.15	8,442.57
999	431.92		431.92
Grand Total	16,173,460.35	42,417,683.74	58,591,144.09

BU Group DEK - Electric 9 ME Sept 2019

FERC AC	Allocated	Direct	Grand Total
403		354,460.31	354,460.31
408	361,234.61	520,897.69	882,132.30
415		(471,682.61)	(471,682.61)
416		7,799.03	7,799.03
417	1,010.59	33,589.69	34,600.28
419	67.96		67.96
421	(984.19)		(984.19)
426	78,835.29	191,466.97	270,302.26
431	243,632.08	152,237.15	395,869.23
451		8,388.61	8,388.61
454	(230.00)	(44,936.62)	(45,166.62)
456		(38.98)	(38.98)
457	-	(139,529.41)	(139,529.41)
500	256,921.50	1,334,281.99	1,591,203.49
501	67.76	59,695.40	59,763.16
502	46,240.16	201,140.07	247,380.23
505		(10,151.15)	(10,151.15)
506	93,233.66	326,863.88	420,097.54
510	187,169.74	1,457,565.40	1,644,735.14
511	8,291.02	91,758.57	100,049.59
512	318.90	413,538.86	413,857.76
513	14,604.29	71,193.83	85,798.12
514		39,582.59	39,582.59
528		(5.80)	(5.80)
543	22.42		22.42
546		230,397.71	230,397.71
547		318.27	318.27
548	2.24	16,236.70	16,238.94
549	526.43	190,291.52	190,817.95
551		103,485.04	103,485.04
552		5,163.57	5,163.57
553	1,096.52	23,574.46	24,670.98
554	227.33	7,387.91	7,615.24
556		(389.67)	(389.67)
557	0.05	3,113,110.37	3,113,110.42
560		3,318.81	3,318.81
561	608.76	2,448,873.02	2,449,481.78
562		86,145.18	86,145.18
563		26,969.48	26,969.48
565		11,700,649.61	11,700,649.61
566	803.67	168,063.81	168,867.48
569	151.67	166,544.05	166,695.72

570		68,724.88	68,724.88
571	88.45	160,828.46	160,916.91
575		1,476,207.92	1,476,207.92
580		25,707.85	25,707.85
581	12.55	303,326.38	303,338.93
582		16,572.11	16,572.11
583		24,813.24	24,813.24
584		1,569.22	1,569.22
586	49.66	128.92	178.58
587	30.60	14,618.56	14,649.16
588	198,961.19	726,485.21	925,446.40
590	10.33	66,177.85	66,188.18
591		537.64	537.64
592		201,369.31	201,369.31
593	11,537.67	313,586.75	325,124.42
594		19,648.82	19,648.82
595		20,108.59	20,108.59
596		177,695.38	177,695.38
597		17,716.54	17,716.54
870	2.91		2.91
880		459.24	459.24
902	364.09	46,466.25	46,830.34
903	1,852,370.41	1,009,291.34	2,861,661.75
904		(31,037.59)	(31,037.59)
905	-	300.00	300.00
908	19.04		19.04
909		5,410.85	5,410.85
910	29,534.40	34,396.47	63,930.87
911	20.65		20.65
912	833.92	116,617.38	117,451.30
913	1,195.50	3.91	1,199.41
920	3,537,129.23	1,853,840.34	5,390,969.57
921	2,513,621.33	404,050.20	2,917,671.53
922	284.59		284.59
923	815,219.18	290,846.60	1,106,065.78
924	113,703.46		113,703.46
925	17,081.93	46,630.55	63,712.48
926	803,035.81	1,634,597.62	2,437,633.43
928		505,432.62	505,432.62
930	175,336.87	91,491.85	266,828.72
931	105,623.32	10,560.04	116,183.36
932	(53.27)		(53.27)
935	989.18	4,953.94	5,943.12
Grand Total	11,470,855.46	32,548,390.55	44,019,246.01

BU Group DEK - Electric 12 ME March 2021

FERC AC	Allocated	Direct	Grand Total
408	455,005.45	795,248.88	1,250,254.33
417	75.17	7,887.60	7,962.77
426	117,527.99	616,828.31	734,356.30
431	5,563.88	26,753.89	32,317.77
500	1,369,279.86	2,191,331.58	3,560,611.43
501		114,401.58	114,401.58
502	57,307.58	234,323.64	291,631.23
506	142,118.48	679,798.09	821,916.57
510	91,350.44	2,568,748.43	2,660,098.87
511	1,055.24	1,181.67	2,236.91
546		287,704.45	287,704.45
548		5,428.19	5,428.19
549		286,952.09	286,952.09
551		285,328.53	285,328.53
556		116,303.47	116,303.47
557	2,138.29	3,522,396.30	3,524,534.60
560		162,924.30	162,924.30
561		456,494.58	456,494.58
562		56,201.41	56,201.41
563		17,900.70	17,900.70
565		18,319,937.37	18,319,937.37
566		237,924.10	237,924.10
569	1,538.06	149,802.47	151,340.53
570		133,395.68	133,395.68
571		71,144.37	71,144.37
575		1,814,545.20	1,814,545.20
580		588,523.32	588,523.32
581		578,858.33	578,858.33
582		71,534.75	71,534.75
588	58,163.72	912,390.93	970,554.65
590		111,353.02	111,353.02
591		9,513.64	9,513.64
592		411,592.44	411,592.44
593		1,140,380.82	1,140,380.82
903	1,443,571.67	2,419,220.44	3,862,792.11
904		1,625,844.86	1,625,844.86
908	4.57		4.57
910	(4,158.95)	147,195.52	143,036.57
912	2,178.87	628,992.80	631,171.68
913	3,898.52	7,418.42	11,316.94
920	3,603,651.62	2,796,374.25	6,400,025.87
921	2,836,417.61	369,421.74	3,205,839.35
923	1,295,235.63	217,516.18	1,512,751.81

924	156,204.88	233,582.50	389,787.38
925	17,071.53	525,831.30	542,902.83
926	1,024,817.09	7,254,885.95	8,279,703.05
928		695,887.38	695,887.38
930	270,285.04	114,659.55	384,944.59
931	13,114.86	939,372.12	952,486.98
Grand Total	12,963,417.10	54,961,237.15	67,924,654.25

2019-00271

**AG-DR-01-040(b)
CONFIDENTIAL
ATTACHMENT
IS BEING FILED
UNDER SEAL**

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-041

REQUEST:

Refer to Schedule G-1. The schedule depicts that total labor related payroll costs included in the base year is \$24.092 million and the total labor related payroll costs included in the test year is \$26.955 million. Explain all reasons why the test year payroll costs are expected to increase over the base year by almost 12%. Detail projected increases separately to projected pay increases, new program costs being included in base rates, shifts in capitalization, projected increases in overtime, and all other.

RESPONSE:

Base period	\$ 24.092
Pay Increases @ 3.5%	0.832
Base Period inadvertently excluded Unproductive Labor Allocation	0.709
Decrease in capitalized labor in Test Period	0.663
Contingent workers in Base Period - FTE in Test Period	0.440
Increase in Customer Connect program cost	0.207
Overtime & Other	0.012
Test Period	\$ 26.955

PERSON RESPONSIBLE: Christopher M. Jacobi

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-042

REQUEST:

Provide a schedule of FTEs and payroll dollars separated between expense, capital, and other, for DEK by department and by month for 2016, 2017, 2018, budgeted in each month 2019, actual in each month 2019 for which actual information is available, and budgeted in each month 2020.

RESPONSE:

Payroll Dollars: See attachment AG-DR-01-042 Attachment 1 for amounts separated between expense, capital, and other, for DEK by department and by month for each of the periods requested.

Actual Headcounts: See attachment AG-DR-01-042 Attachment 2 for actual headcounts by month by department for 2016 – September 2019.

Budgeted Headcounts: The Company does not budget headcount.

PERSON RESPONSIBLE: Renee H. Metzler

Duke Energy Kentucky - Electric Operations
 AG-DR-01-042

Request:

42. Provide a schedule of FTEs and payroll dollars separated between expense, capital, and other, for DEK by department and by month for 2016, 2017, 2018, budgeted in each month 2019, actual in each month 2019 for which actual information is available, and budgeted in each month 2020.

Response:

See the below table for payroll labor cost for Duke Energy Kentucky (Electric). Amounts extracted from the company's general ledger system (budget) for the test period.

	Payroll Labor Costs (Budgeted 2020) - F			
	Expense	Capital	Other deferred	Total
January	\$ 2,441,897	\$ 1,326,569	\$ 122,271	\$ 3,890,737
February	2,083,133	1,286,824	120,883	3,490,840
March	2,265,241	1,437,397	143,914	3,846,553
April	2,230,465	1,368,120	125,246	3,723,831
May	2,159,058	1,362,094	125,451	3,646,603
June	2,229,466	1,470,382	125,501	3,825,348
July	2,421,244	1,573,654	123,795	4,118,693
August	2,257,432	1,751,188	143,832	4,152,452
September	2,156,367	1,645,785	123,811	3,925,963
October	2,138,807	1,604,589	123,842	3,867,238
November	2,142,835	1,565,437	123,846	3,832,119
December	2,437,553	1,506,139	123,984	4,067,676
Total	\$ 26,963,500	\$ 17,898,178	\$ 1,526,376	\$ 46,388,053

Duke Energy Kentucky - Electric Operations
 AG-DR-01-042

Payroll Labor Costs (Budgeted 2019) - E				
	Expense	Capital	Other deferred	Total
January	\$ 1,885,133	\$ 1,102,175	\$ 128,668	\$ 3,115,976
February	1,871,303	1,093,005	128,341	3,092,649
March	2,320,226	1,210,419	152,330	3,682,975
April	2,009,038	1,131,013	132,819	3,272,870
May	1,936,748	1,141,285	133,018	3,211,051
June	1,975,194	1,195,565	133,079	3,303,838
July	1,933,972	1,188,864	131,359	3,254,195
August	2,307,825	1,276,007	152,249	3,736,081
September	1,931,823	1,307,861	131,379	3,371,063
October	1,906,701	1,356,529	131,404	3,394,634
November	1,943,498	1,270,296	131,410	3,345,204
December	1,904,604	1,301,963	131,406	3,337,973
Total	\$ 23,926,064	\$ 14,574,982	\$ 1,617,463	\$ 40,118,509

Payroll Labor Costs (Actual through Sept 2019) - D				
	Expense	Capital	Other deferred	Total
January	\$ 1,490,595	\$ 1,025,326	\$ 56,995	\$ 2,572,916
February	1,610,085	1,095,923	152,950	2,858,959
March	1,964,086	1,373,186	152,216	3,489,488
April	1,746,677	1,156,403	135,478	3,038,558
May	1,740,380	1,149,248	135,342	3,024,970
June	1,557,405	1,208,230	104,837	2,870,472
July	1,536,486	1,093,614	102,487	2,732,587

Duke Energy Kentucky - Electric Operations
AG-DR-01-042

August	1,968,305	1,466,672	163,219	3,598,196
September	1,556,628	1,099,961	117,329	2,773,918
October				
November				
December				
Total	\$ 15,170,646	\$ 10,668,563	\$ 1,120,853	\$ 26,960,063

Payroll Labor Costs (2018) C				
	Expense	Capital	Other deferred	Total
January	\$ 1,612,380	\$ 841,231	\$ 27,510	\$ 2,481,121
February	1,689,696	998,364	183,628	2,871,688
March	2,358,063	1,400,023	165,704	3,923,790
April	1,829,194	1,331,348	121,706	3,282,247
May	1,861,974	1,225,392	106,753	3,194,119
June	2,010,986	1,204,297	110,821	3,326,105
July	1,540,410	962,657	75,143	2,578,210
August	1,847,692	1,204,090	127,110	3,178,892
September	1,677,054	999,802	99,949	2,776,806
October	1,626,639	970,980	117,196	2,714,816
November	1,733,318	904,661	79,428	2,717,407
December	1,349,336	909,068	123,373	2,381,777
Total	\$ 21,136,742	\$ 12,951,914	\$ 1,338,321	\$ 35,426,977

Payroll Labor Costs (2017) B			
	Expense	Capital	Other deferred
			Total

Duke Energy Kentucky - Electric Operations
AG-DR-01-042

January	\$ 1,625,622	\$ 717,905	\$(187,603)	\$ 2,155,923
February	1,638,583	808,031	52,796	2,499,409
March	2,280,388	889,767	71,525	3,241,680
April	1,646,169	723,414	58,243	2,427,827
May	1,898,822	761,281	71,356	2,731,459
June	1,613,931	737,873	61,898	2,413,702
July	1,664,341	794,096	51,022	2,509,459
August	1,600,238	954,773	105,097	2,660,108
September	2,104,814	896,528	119,898	3,121,239
October	1,689,730	946,215	121,759	2,757,703
November	1,521,619	971,238	72,809	2,565,665
December	1,298,318	809,905	12,112	2,120,336
Total	\$ 20,582,574	\$ 10,011,025	\$ 610,911	\$ 31,204,510

31,204,510

Payroll Labor Costs (2016) A

	Expense	Capital	Other deferred	Total
January	\$ 1,684,121	\$ 487,800	\$ 11,588	\$ 2,183,509
February	1,758,195	560,983	56,708	2,375,887
March	1,798,544	597,351	46,729	2,442,624
April	2,476,545	815,005	64,163	3,355,712
May	1,778,098	670,640	30,947	2,479,686
June	1,664,130	316,308	25,811	2,006,249
July	1,565,186	591,945	14,335	2,171,466
August	1,637,750	636,507	40,645	2,314,902
September	2,094,999	673,879	29,874	2,798,751
October	1,643,272	742,122	(21,226)	2,364,167
November	1,538,914	363,620	2,260	1,904,795
December	1,460,647	657,047	(115,958)	2,001,736

Duke Energy Kentucky - Electric Operations
 AG-DR-01-042

Total	\$ 21,100,401	\$ 7,113,207	\$ 185,874	\$ 28,399,483
				28,399,483

- A See 12ME DEC 2016 tab for department detail, by month.
- B See 12ME DEC 2017 tab for department detail, by month.
- C See 12ME DEC 2018 tab for department detail, by month.
- D See 9ME SEP 2019 tab for department detail, by month.
- E See 2019 (Budget) tab for department detail, by month.
- F See 2020 (Budget) tab for department detail, by month.

Budget - 2020 See second query for department detail

Business Unit Hierarchy
 Account CB
 Resource Type CB

DUKE_ENERGY_KY_ELEC - Duke Energy Kentucky Electric
 (Multiple Items)

MTD Original Budget Amount
 Column Labels
 WTB_MANG_REPORT
 ALL_ACCOUNTS - All Accounts
 BALANCE_SHEET - Balance Sheet
 ASSET - Assets

Row Labels
 2020
 INC_STMT - Income Statement
 INCOME_CO - Income, Continuing Operations
 O&M_OTHER_EXPENSES - O&M and Other Expenses
 GRAND TOTAL

		CAPITAL - Capital	INDIRECT - Indirect	LIABILITY - Liabilities	INC_STMT - Income Statement	Grand Total
Q1 2020						
Jan 2020	139,729	1,326,569	(18,078)	620	2,441,897	3,890,737
Feb 2020	137,578	1,286,824	(17,315)	620	2,083,133	3,490,840
Mar 2020	162,850	1,437,397	(19,578)	642	2,265,241	3,846,553
Q2 2020						
Apr 2020	142,431	1,368,120	(17,827)	642	2,230,465	3,723,831
May 2020	142,460	1,362,094	(17,651)	642	2,159,058	3,646,603
Jun 2020	142,447	1,470,382	(17,588)	642	2,229,466	3,825,348
Q3 2020						
Jul 2020	140,744	1,573,654	(17,591)	642	2,421,244	4,118,693
Aug 2020	162,611	1,751,188	(19,421)	642	2,257,432	4,152,452
Sep 2020	140,758	1,645,785	(17,589)	642	2,156,367	3,925,963
Q4 2020						
Oct 2020	140,792	1,604,589	(17,592)	642	2,138,807	3,867,238
Nov 2020	140,794	1,565,437	(17,590)	642	2,142,835	3,832,119
Dec 2020	140,934	1,506,139	(17,592)	642	2,437,553	4,067,676
Grand Total	1,734,130	17,898,178	(215,410)	7,656	26,963,500	46,388,053

Business Unit Hierarchy
 Account CB
 Resource Type CB
 Responsibility Center Hierarchy

DUKE_ENERGY_KY_ELEC - Duke Energy Kentucky Electric
 (Multiple Items)
 RESP_CENTER_RPTG

MTD Original Budget Amount
 Column Labels
 WTB_MANG_REPORT
 ALL_ACCOUNTS - All Accounts
 BALANCE_SHEET - Balance Sheet
 ASSET - Assets

Row Labels
 2020
 INC_STMT - Income Statement
 INCOME_CO - Income, Continuing Operations
 O&M_OTHER_EXPENSES - O&M and Other Expenses
 GRAND TOTAL

		CAPITAL - Capital	INDIRECT - Indirect	LIABILITY - Liabilities	INC_STMT - Income Statement	Grand Total
Q1 2020						
Jan 2020	2,384	24,949			7,490	32,438
Administrative Services		31,817			113,491	147,692
Business Transformation&Techn					5,871	5,871
Chairman & CEO					(1,077)	(1,077)
Corporate Accounts		980,302	(85,503)		620,246	1,515,045
Cust & Delivery Ops		26,164		446	176,497	203,107
Energy Solutions	144				6,748	6,892
Enterprise Security					17,661	17,661
Ext Affrs & Strtcg Policy						

Budget - 2020 See second query for department detail

FINANCE	29	11,639	1,108		68,078	80,854
GENERAL COUNSEL					46,507	46,507
HR	230		3,987		17,997	22,214
REGULATED GENERATION	136,942	251,698	62,329	174	1,362,389	1,813,533
Feb 2020						
Administrative Services		24,021			7,466	31,487
Business Transformation&Techn	1,009	31,572			40,986	73,566
Chairman & CEO					5,871	5,871
Corporate Accounts					(1,077)	(1,077)
Cust & Delivery Ops		933,402	(84,739)		588,926	1,437,588
Energy Solutions		26,164		446	175,674	202,284
Enterprise Security	144				6,748	6,892
Ext Affrs & Strtgc Policy					17,496	17,496
FINANCE	29	11,639	1,108		68,078	80,854
GENERAL COUNSEL					41,845	41,845
HR	230		3,987		17,997	22,214
REGULATED GENERATION	136,166	260,027	62,329	174	1,113,123	1,571,819
Mar 2020						
Administrative Services		24,819			8,104	32,922
Business Transformation&Techn	1,041	30,589			42,427	74,057
Chairman & CEO					6,250	6,250
Corporate Accounts					(1,077)	(1,077)
Cust & Delivery Ops		1,048,798	(89,957)		715,968	1,674,809
Energy Solutions		26,715		462	182,564	209,741
Enterprise Security	152				7,075	7,226
Ext Affrs & Strtgc Policy					18,116	18,116
FINANCE	30	12,046	1,147		70,779	84,002
GENERAL COUNSEL					48,102	48,102
HR	238		4,127		18,539	22,903
REGULATED GENERATION	161,390	294,430	65,105	180	1,148,395	1,669,501
Q2 2020						
Apr 2020						
Administrative Services		24,843			7,728	32,571
Business Transformation&Techn	1,045	30,221			42,711	73,976
Chairman & CEO					6,250	6,250
Corporate Accounts					(1,077)	(1,077)
Cust & Delivery Ops		973,962	(87,521)		685,086	1,571,527
Energy Solutions		23,738		462	187,373	211,572
Enterprise Security	149				6,965	7,114
Ext Affrs & Strtgc Policy					18,116	18,116
FINANCE	30	12,046	1,147		70,779	84,002
GENERAL COUNSEL					43,279	43,279
HR	238		4,127		18,539	22,903
REGULATED GENERATION	140,970	303,310	64,420	180	1,144,717	1,653,597
May 2020						
Administrative Services		24,843			7,728	32,571
Business Transformation&Techn	1,042	29,238			43,210	73,490
Chairman & CEO					6,250	6,250
Corporate Accounts					(1,077)	(1,077)
Cust & Delivery Ops		938,145	(87,345)		612,470	1,463,269
Energy Solutions		23,343		462	187,753	211,558
Enterprise Security	149				6,965	7,114
Ext Affrs & Strtgc Policy					18,116	18,116
FINANCE	30	12,046	1,147		70,779	84,002
GENERAL COUNSEL					43,308	43,308
HR	238		4,127		18,539	22,903

Budget - 2020 See second query for department detail

REGULATED GENERATION									
Jun 2020	141,001	334,479	64,420	180	1,145,018	1,685,099			
Administrative Services		24,843			7,732	32,576			
Business Transformation&Techn	1,029	29,484			42,368	72,882			
Chairman & CEO					6,250	6,250			
Corporate Accounts					(1,077)	(1,077)			
Cust & Delivery Ops		955,756	(87,282)		684,538	1,553,012			
Energy Solutions		24,280		462	188,910	213,652			
Enterprise Security	149				6,965	7,114			
Ext Affrs & Strtgc Policy					18,116	18,116			
FINANCE	30	12,046	1,147		70,779	84,002			
GENERAL COUNSEL	238		4,127		18,539	22,903			
HR	141,001	423,972	64,420	180	1,143,067	1,772,641			
REGULATED GENERATION									
Jul 2020	1,062	25,474			7,750	33,224			
Administrative Services		29,975			42,545	73,583			
Business Transformation&Techn					6,250	6,250			
Chairman & CEO					(1,077)	(1,077)			
Corporate Accounts		957,766	(87,285)	462	625,518	1,496,000			
Cust & Delivery Ops		23,474			185,488	209,424			
Energy Solutions	149				6,965	7,114			
Enterprise Security					18,286	18,286			
Ext Affrs & Strtgc Policy	30	12,046	1,147		70,779	84,002			
FINANCE	238		4,127		48,102	48,102			
GENERAL COUNSEL	139,265	524,918	64,420	180	1,392,099	2,120,882			
HR									
REGULATED GENERATION									
Aug 2020	1,076	24,843			7,732	32,576			
Administrative Services		29,975			42,739	73,791			
Business Transformation&Techn					6,250	6,250			
Chairman & CEO					(1,077)	(1,077)			
Corporate Accounts		1,069,703	(89,800)	462	694,324	1,674,226			
Cust & Delivery Ops		23,474			188,201	212,137			
Energy Solutions	152				7,075	7,226			
Enterprise Security					18,116	18,116			
Ext Affrs & Strtgc Policy	30	12,046	1,147		70,779	84,002			
FINANCE	238		4,127		43,279	43,279			
GENERAL COUNSEL	161,115	591,147	65,105	180	1,161,476	1,979,023			
HR									
REGULATED GENERATION									
Sep 2020	1,077	24,843			8,105	32,948			
Administrative Services		29,975			42,511	73,563			
Business Transformation&Techn					6,250	6,250			
Chairman & CEO					(1,077)	(1,077)			
Corporate Accounts		1,019,644	(87,283)	462	601,519	1,533,879			
Cust & Delivery Ops		24,280			198,636	223,378			
Energy Solutions	149				6,965	7,114			
Enterprise Security					18,116	18,116			
Ext Affrs & Strtgc Policy	30	12,046	1,147		70,779	84,002			
FINANCE	238		4,127		43,308	43,308			
GENERAL COUNSEL	139,265	534,996	64,420	180	1,142,717	1,881,578			
HR									
REGULATED GENERATION									
Oct 2020									

Budget - 2020 See second query for department detail

Administrative Services						7,728	32,571
Business Transformation&Techn		24,843				43,557	74,635
Chairman & CEO	1,103	29,975				6,250	6,250
Corporate Accounts						(1,077)	(1,077)
Cust & Delivery Ops			(87,286)			585,896	1,513,717
Energy Solutions		1,015,108			462	197,859	220,479
Enterprise Security	149	22,158				6,965	7,114
Ext Affrs & Strtgc Policy						18,116	18,116
FINANCE	30	12,046	1,147			70,779	84,002
GENERAL COUNSEL	238		4,127			43,279	43,279
HR	139,273	500,458	64,420	180		18,539	22,903
REGULATED GENERATION						1,140,917	1,845,248
Nov 2020							
Administrative Services		24,843				7,728	32,571
Business Transformation&Techn		29,729				43,598	74,432
Chairman & CEO	1,105					6,250	6,250
Corporate Accounts						(1,077)	(1,077)
Cust & Delivery Ops		1,006,935	(87,284)			588,949	1,508,600
Energy Solutions	149	22,158			462	198,584	221,204
Enterprise Security						6,965	7,114
Ext Affrs & Strtgc Policy						18,116	18,116
FINANCE	30	12,046	1,147			70,779	84,002
GENERAL COUNSEL	238		4,127			43,279	43,279
HR	139,273	469,726	64,420	180		18,539	22,903
REGULATED GENERATION						1,141,126	1,814,725
Dec 2020							
Administrative Services		25,474				7,745	33,219
Business Transformation&Techn		29,484				51,439	82,168
Chairman & CEO	1,245					6,250	6,250
Corporate Accounts						(1,077)	(1,077)
Cust & Delivery Ops		1,029,408	(87,287)			622,511	1,564,632
Energy Solutions	149	22,964			462	199,451	222,877
Enterprise Security						6,965	7,114
Ext Affrs & Strtgc Policy						18,286	18,286
FINANCE	30	12,046	1,147			70,779	84,002
GENERAL COUNSEL	238		4,127			48,102	48,102
HR	139,273	386,764	64,420	180		18,539	22,903
REGULATED GENERATION						1,388,562	1,979,199
Grand Total	1,734,130	17,898,178	(215,410)	7,656		26,963,500	46,388,053

Budget - 2019 See second query for department detail

Business Unit Hierarchy
 Account CB
 Resource Type CB
 DUKE_ENERGY_KY_ELEC - Duke Energy Kentucky Electric
 (Multiple Items)
 (Multiple Items)

MTD Original Budget Amount	Column Labels	ASSET - Assets	WTB_MANG_REPORT	ALL_ACCOUNTS - All Accounts	BALANCE_SHEET - Balance Sheet	INDIRECT - Indirect	CAPITAL - Capital	LIABILITY - Liabilities	INC_STMT - Income Statement	Grand Total
Row Labels	2019									
Q1 2019										
Jan 2019	140,232	1,102,175	(12,184)	620	1,885,133					3,115,976
Feb 2019	139,436	1,093,005	(11,714)	620	1,871,303					3,092,649
Mar 2019	164,749	1,210,419	(13,061)	642	2,320,226					3,682,975
Q2 2019										
Apr 2019	144,275	1,131,013	(12,097)	642	2,009,038					3,272,870
May 2019	144,302	1,141,285	(11,926)	642	1,936,748					3,211,051
Jun 2019	144,303	1,195,565	(11,865)	642	1,975,194					3,303,838
Q3 2019										
Jul 2019	142,585	1,188,864	(11,867)	642	1,933,972					3,254,195
Aug 2019	164,483	1,276,007	(12,876)	642	2,307,825					3,736,081
Sep 2019	142,603	1,307,861	(11,866)	642	1,931,823					3,371,063
Q4 2019										
Oct 2019	142,631	1,356,529	(11,868)	642	1,906,701					3,394,634
Nov 2019	142,635	1,270,296	(11,866)	642	1,943,498					3,345,204
Dec 2019	142,634	1,301,963	(11,869)	642	1,904,604					3,337,973
Grand Total	1,754,867	14,574,982	(145,059)	7,656	23,926,064					40,118,509

Business Unit Hierarchy
 Account CB
 Resource Type CB
 Responsibility Center Hierarchy
 DUKE_ENERGY_KY_ELEC - Duke Energy Kentucky Electric
 (Multiple Items)
 RESP_CENTER_RPTG

MTD Original Budget Amount	Column Labels	ASSET - Assets	WTB_MANG_REPORT	ALL_ACCOUNTS - All Accounts	BALANCE_SHEET - Balance Sheet	INDIRECT - Indirect	CAPITAL - Capital	LIABILITY - Liabilities	INC_STMT - Income Statement	Grand Total
Row Labels	2019									
Q1 2019										
Jan 2019	2,740	23,833	3,477		4,902					28,734
Administrative Services										50,253
Business Transformation&Techn										5,343
Chairman & CEO										130
Corporate Accounts										465,429
Cust & Delivery Ops	154	740,434	(121,057)	446	1,084,960					1,74,300
Energy Solutions										6,748
Enterprise Security										16,866
Ext Affrs & Strtcg Policy	144	28,730								

Budget - 2019 See second query for department detail

FINANCE	30	13,205	1,006			71,588	85,829
GENERAL COUNSEL						40,589	40,589
HR	222		3,852			17,187	21,261
Natural Gas Operations		347				251	598
REGULATED GENERATION	136,942	262,382	100,538	174		1,060,183	1,560,218
Feb 2019							
Administrative Services						4,888	28,115
Business Transformation&Techn	2,720	23,226				47,625	87,602
Chairman & CEO		33,780	3,477			5,343	5,343
Corporate Accounts						130	130
Cust & Delivery Ops	154	727,556	(119,939)			469,623	1,077,394
Energy Solutions		29,714		446		143,490	173,650
Enterprise Security	144					6,748	6,892
Ext Affrs & Strtgc Policy						16,866	16,866
FINANCE	30	13,205	1,006			71,664	85,904
GENERAL COUNSEL						40,589	40,589
HR	222		3,852			17,074	21,148
Natural Gas Operations		345				251	597
REGULATED GENERATION	136,166	265,179	99,890	174		1,047,011	1,548,419
Mar 2019							
Administrative Services						5,443	30,046
Business Transformation&Techn	2,787	24,603				50,044	90,967
Chairman & CEO		34,659	3,477			5,871	5,871
Corporate Accounts						130	130
Cust & Delivery Ops	160	826,511	(127,010)			636,834	1,336,496
Energy Solutions		32,710		462		148,507	181,679
Enterprise Security	152					7,075	7,226
Ext Affrs & Strtgc Policy						17,628	17,628
FINANCE	31	13,658	1,041			74,360	89,089
GENERAL COUNSEL						46,720	46,720
HR	230		3,987			18,201	22,418
Natural Gas Operations		360				260	620
REGULATED GENERATION	161,390	277,918	105,444	180		1,309,153	1,854,085
Apr 2019							
Administrative Services						5,062	29,083
Business Transformation&Techn	2,736	24,021				46,255	88,891
Chairman & CEO		36,423	3,477			5,871	5,871
Corporate Accounts						130	130
Cust & Delivery Ops	160	757,729	(123,950)			565,048	1,198,988
Energy Solutions		33,465		462		153,242	187,169
Enterprise Security	149					6,965	7,114
Ext Affrs & Strtgc Policy						17,463	17,463
FINANCE	31	13,658	1,041			74,305	89,035
GENERAL COUNSEL						42,001	42,001
HR	230		3,987			18,201	22,418
Natural Gas Operations		357				260	617
REGULATED GENERATION	140,970	265,360	103,348	180		1,074,232	1,584,089
May 2019							
Administrative Services						5,062	29,083
Business Transformation&Techn	2,732	24,021				46,068	90,056
Chairman & CEO		37,780	3,477			5,871	5,871
Corporate Accounts						130	130
Cust & Delivery Ops	160	756,399	(123,779)			494,226	1,127,007
Energy Solutions		34,647		462		154,375	189,483
Enterprise Security	149					6,965	7,114

Budget - 2019

See second query for department detail

Enterprise Security	149				6,965	7,114
Ext Affrs & Strtgc Policy					17,463	17,463
FINANCE	31	13,658	1,041		74,417	89,147
GENERAL COUNSEL					46,750	46,750
HR	230		3,987		18,201	22,418
Natural Gas Operations		347			260	607
REGULATED GENERATION	139,265	343,236	103,348	180	1,068,860	1,654,889
Q4 2019						
Administrative Services						
Business Transformation&Techn		72,063			15,186	87,249
Chairman & CEO	8,375	98,408	10,430		144,949	262,162
Corporate Accounts					17,614	17,614
Cust & Delivery Ops					391	391
Energy Solutions	480	2,577,701	(371,162)		1,374,402	3,581,420
Enterprise Security	446	100,695		1,385	475,904	577,985
Ext Affrs & Strtgc Policy					20,896	21,342
FINANCE	92	40,974	3,122		52,389	52,389
GENERAL COUNSEL					223,252	267,441
HR	689		11,961		126,004	126,004
Natural Gas Operations		1,049			54,608	67,258
REGULATED GENERATION	417,819	1,037,897	310,043	540	780	1,829
Grand Total	1,754,867	14,574,982	(145,059)	7,656	3,248,427	5,014,727
					23,926,064	40,118,509

Actual - 9 months ending September 2019

See second query for department detail

Business Unit Hierarchy
 Account CB
 Responsibility Center Level 02 Name
 Resource Type CB

YTD Actual Amount	DUKE_ENERGY_KY_ELEC - Duke Energy Kentucky Electric (Multiple Items) (Multiple Items)	CAPITAL - Capital	INDIRECT - Indirect	LIABILITY - Liabilities	INC_STMT - Income Statement INCOME_CO - Income, Continuing Operations O&M_OTHER_EXPENSES - O&M and Other Expenses	Grand Total
Q1 2019						
Jan 2019	126,225	1,025,326	(69,395)	165	1,490,595	2,572,916
Feb 2019	265,611	2,121,249	(55,512)	(153)	3,100,680	5,431,875
Mar 2019	426,703	3,494,435	(63,862)	(680)	5,064,766	8,921,363
Q2 2019						
Apr 2019	576,121	4,650,838	(77,952)	(529)	6,811,443	11,959,921
May 2019	717,938	5,800,086	(85,812)	856	8,551,823	14,984,890
Jun 2019	883,364	7,008,316	(146,666)	1,120	10,109,228	17,855,362
Q3 2019						
Jul 2019	1,016,465	8,101,930	(177,714)	1,554	11,645,714	20,587,949
Aug 2019	1,176,784	9,568,602	(174,889)	1,630	13,614,019	24,186,145
Sep 2019	1,315,051	10,668,563	(196,098)	1,901	15,170,646	26,960,063
Grand Total	1,374,268	11,065,513	(77,059)	2,074	15,817,762	28,182,558

Business Unit Hierarchy
 Account CB
 Responsibility Center Level 02 Name
 Resource Type CB

YTD Actual Amount	DUKE_ENERGY_KY_ELEC - Duke Energy Kentucky Electric (Multiple Items) (Multiple Items)	CAPITAL - Capital	INDIRECT - Indirect	LIABILITY - Liabilities	INC_STMT - Income Statement INCOME_CO - Income, Continuing Operations O&M_OTHER_EXPENSES - O&M and Other Expenses	Grand Total
Q1 2019						
Jan 2019	19				317	335
100 Org Effectiveness	31,082				21,493	52,575
110 Central Progs Svcs	74,753				16,783	91,537
110 Regional Svcs						

Actual - 9 months ending September 2019

See second query for department detail

Corporate Governance DiscOps	4,268	317	10,972	15,557
DEC Central Programs Services		3,765	5,280	9,044
DEC Coal Combustion Products		23,229	1,383	24,612
DEC Customer	(0)	2,821	32,385	35,206
DEC Customer Experience	1	234	10,713	10,948
DEC Environmental			158	158
DEC Fleet Maint Svcs			5,363	5,363
DEC Fossil Hydro			1,196	1,196
DEC Gen Ops Support			238	553
DEC Nuclear	2	315	116	118
DEC Org Effectiveness			5,728	5,728
DEC Other			14,194	14,194
DEC Other Misc	0	82	18	76
DEC Power Delivery	8	9,957	2,422	5,479
DEC President & Staff			20,989	33,377
DEC Regional Svcs			5,583	5,583
DEC Wholesale Pwr & Rnwable Gen	0	30	240	240
DEF Central Progs Svcs		4	4,820	4,940
DEF Fleet Maint Svcs		151	8	12
DEF Org Effectiveness			398	549
DEF Other	5	1	203	203
DEF Power Delivery	0	855	1,426	1,432
DEF Regional Svcs			2,661	3,516
DEI Retail			209	209
DEI Central Progs Svcs		1,532	1,032	1,032
DEI Coal Combustion Products		59,169	438	1,970
DEI Customer			3,605	62,775
DEI Other			1,684	1,684
DEI Power Delivery		1,532	4,347	4,347
DEI President and Staff			(7,774)	(6,242)
DEK Customer		1,108	53	53
DEK Fossil		33,419	11,137	12,246
DEK Power Delivery		383,433	378,837	412,256
DEP Central Progs Svcs	2,682		104,742	219,436
DEP Fleet Maint Svcs		2,002	498	2,500
DEP Fossil Hydro			171	171
DEP Org Effectiveness			571	571
DEP Other			2,613	2,613
DEP Power Delivery	1	116	13,999	13,999
DEP Regional Svcs			5,266	5,382
DEP Retail			39	39
Duke Energy Ohio - RU			2,446	2,446
Marketing & Customer Engagemen	762	39,769	32,562	76,176
Piedmont Gas - Customer		57	3,649	3,707
Piedmont Gas - Delivery	0	614	10	10
Piedmont Gas - Other	0		51	664
Srvco Coal Combustion Products	10	8,688	1,788	10,476
Srvco Construct & Proj Mgmt	1	12,758	1,641	6,341
Srvco Customer Service	118,169	60,671	73,253	86,827
Srvco Enterprise Business Svs	10	11,946	187,986	369,729
Srvco EnviroHealthSafety			30,972	49,343
Srvco Fossil Hydro Total		2,200	239,280	241,481

Actual - 9 months ending September 2019

See second query for department detail

SrvCo Gas	0	18		13	31
SrvCo Gen Support	9			5,009	5,018
SrvCo Nuclear				73	73
SrvCo Other	262	14,762	6	86,951	101,981
SrvCo Power Delivery	33	243,919	181,675	135,298	560,925
Feb 2019					
100 Org Effectiveness		3,549		1,043	4,591
110 Central Progs Svcs		55,500		39,809	95,309
110 Regional Svcs		157,982		30,271	188,254
Corporate Governance DiscOps		555		23,578	32,704
DEC Central Programs Services	8,571	10,625		13,382	24,007
DEC Coal Combustion Products		74,324		3,054	77,378
DEC Customer	1	6,061		68,745	74,806
DEC Customer Experience	2	569		22,678	23,249
DEC Environmental		3,642		350	350
DEC Fleet Maint Svcs				10,355	13,997
DEC Fossil Hydro	0			3,223	3,224
DEC Gen Ops Support		611		506	1,118
DEC Nuclear	4			191	196
DEC Org Effectiveness				11,623	11,623
DEC Other				30,064	30,064
DEC Other Misc		172	36	11,239	11,603
DEC Power Delivery	1	20,118	3,075	44,892	68,085
DEC President & Staff	1			11,413	11,413
DEC Regional Svcs				4,793	4,793
DEC Wholesale Pwr & Rnwable Gen	0	60	183	9,754	9,997
DEF Central Progs Svcs		56		201	256
DEF Fleet Maint Svcs		270		731	1,001
DEF Org Effectiveness				465	465
DEF Other	13	1		3,127	3,141
DEF Power Delivery	0	1,574		5,715	7,290
DEF Regional Svcs				460	460
DEF Retail		15		2,303	2,318
DEI Central Progs Svcs		3,098		885	3,983
DEI Coal Combustion Products		120,408		8,229	128,637
DEI Customer				3,475	3,475
DEI Fossil Hydro				(1,599)	(1,599)
DEI Other				8,802	8,802
DEI Power Delivery		3,144		(7,413)	(4,269)
DEI President and Staff				181	181
DEK Customer		3,221		23,378	26,600
DEK Fossil		86,809		795,645	882,454
DEK Gas		95		38	132
DEK Power Delivery	5,647	752,033	(484,781)	187,136	460,034
DEP Central Progs Svcs		4,877		1,170	6,047
DEP Environmental				(44)	(44)
DEP Fleet Maint Svcs				655	655
DEP Fossil Hydro				958	958
DEP Nuclear		1			1
DEP Org Effectiveness		0		5,469	5,469
DEP Other				28,282	28,282
DEP Power Delivery	1	471		10,468	10,939

Actual - 9 months ending September 2019

See second query for department detail

DEP Regional Svcs					93	93
DEP Retail					4,842	4,864
Duke Energy Ohio - RU					77,632	174,685
Marketing & Customer Engagemen				8,793	8,959	9,104
Piedmont Gas - Customer					19	19
Piedmont Gas - Delivery					140	754
Piedmont Gas - Other					24	24
SrvCo Coal Combustion Products					3,741	22,551
SrvCo Construct & Proj Mgmt				253	3,136	12,911
SrvCo Customer Service				1,630	155,574	180,605
SrvCo Enterprise Business Svs				6,140	393,297	770,897
SrvCo EnviroHealthSafety				13,023	64,384	106,224
SrvCo Fossil Hydro Total					486,636	497,945
SrvCo Gas					17	94
SrvCo Gen Support					10,029	10,048
SrvCo Nuclear					147	147
SrvCo Other				11	175,383	201,003
SrvCo Power Delivery				386,703	296,948	1,177,478
Mar 2019						
100 Org Effectiveness					1,424	10,238
110 Central Progs Svcs					59,922	139,741
110 Regional Svcs					42,309	272,439
Corporate Governance DiscOps					29,449	42,937
DE Renewables & Transmission					7	8
DEC Central Programs Services					21,322	36,257
DEC Coal Combustion Products					4,716	100,402
DEC Customer					110,523	121,451
DEC Customer Experience					33,186	34,133
DEC Environmental					515	515
DEC Fleet Maint Svcs					17,068	21,135
DEC Fossil Hydro					5,496	5,496
DEC Gen Ops Support					769	1,932
DEC Nuclear					191	196
DEC Org Effectiveness					17,352	17,352
DEC Other					45,653	45,775
DEC Other Misc					17,332	20,133
DEC Power Delivery				36	70,867	103,335
DEC President & Staff				3,580	17,258	17,258
DEC Regional Svcs					13,551	13,551
DEC Wholesale Pwr & Rnwable Gen					14,768	15,135
DEF Central Progs Svcs					344	411
DEF Fleet Maint Svcs					1,031	1,412
DEF Org Effectiveness					735	735
DEF Other					4,998	5,035
DEF Power Delivery					8,015	10,183
DEF Regional Svcs					718	718
DEI Central Progs Svcs					3,708	4,026
DEI Coal Combustion Products					1,370	6,163
DEI Customer					12,796	200,393
DEI Fossil Hydro					6,265	6,265
DEI Other					(1,599)	(1,599)
					13,161	13,161

Actual - 9 months ending September 2019

See second query for department detail

DEI Power Delivery	4,994	(7,324)	(2,330)
DEI President and Staff		369	369
DEK Customer	7,974	45,654	53,628
DEK Fossil	209,297	1,399,084	1,608,381
DEK Gas	95	455	550
DEK Power Delivery	9,408	349,364	826,443
DEP Central Progs Svcs	6,914	1,696	8,609
DEP Environmental		(44)	(44)
DEP Fleet Maint Svcs		854	854
DEP Fossil Hydro	0	1,489	1,489
DEP Gen Ops Support		(6,749)	(6,749)
DEP Nuclear	1	158	159
DEP Org Effectiveness	0	8,501	8,501
DEP Other	0	42,524	42,524
DEP Power Delivery	1	17,109	18,070
DEP Regional Svcs	960	288	288
DEP Retail	263	7,746	8,008
Duke Energy Ohio - RU	1,059	160,489	361,200
Marketing & Customer Engagemen	184	13,332	13,842
Piedmont Gas - Customer		37	37
Piedmont Gas - Delivery	1	924	925
Piedmont Gas - Other	1	34	34
SrvCo Coal Combustion Products		5,740	33,581
SrvCo Construct & Proj Mgmt	169	4,353	24,617
SrvCo Customer Service	1	20,095	253
SrvCo Enterprise Business Svcs	401,697	15,858	20,095
SrvCo EnviroHealthSafety	28	9,227	15,858
SrvCo Fossil Hydro Total	28	20,140	9,227
SrvCo Gas	0	25,033	20,140
SrvCo Gen Support	278	62	119
SrvCo Nuclear		14,120	14,398
SrvCo Other	995	225	225
SrvCo Power Delivery	435	263,301	308,009
		483,916	1,903,597
Q2 2019			
Apr 2019			
100 Org Effectiveness		1,751	15,507
110 Central Progs Svcs		85,591	180,318
110 Regional Svcs		64,112	382,093
Corporate Governance DiscOps		51,234	68,930
DE Renewables & Transmission		7	8
DEC Central Programs Services		31,692	50,221
DEC Coal Combustion Products		6,428	121,856
DEC Customer	1	145,750	158,646
DEC Customer Experience	10	44,293	45,710
DEC Environmental		687	687
DEC Fleet Maint Svcs		21,069	25,136
DEC Fossil Hydro		7,215	7,215
DEC Gen Ops Support		1,036	2,683
DEC Nuclear	5	206	210
DEC Org Effectiveness		22,075	22,075
DEC Other		57,675	57,868
DEC Other Misc	1	25,174	28,675
		36	341

Actual - 9 months ending September 2019

See second query for department detail

DEC Power Delivery	2	41,212	4,321	93,546	139,081
DEC President & Staff				22,649	22,649
DEC Rates				123	123
DEC Regional Svcs				27,277	27,277
DEC Wholesale Pwr & Renewable Gen				17,871	18,284
DEF Central Progs Svcs	0	92		445	512
DEF Fleet Maint Svcs		67	320	1,338	1,813
DEF Fossil Hydro		475		28	28
DEF Org Effectiveness				996	996
DEF Other	31	12		6,517	6,560
DEF Power Delivery	1	2,266		10,168	12,436
DEF Regional Svcs				976	976
DEF Retail		898		5,282	6,179
DEI Central Progs Svcs		6,412		1,832	8,244
DEI Coal Combustion Products		249,517		16,932	266,449
DEI Customer				8,107	8,107
DEI Fossil Hydro		4,331		(1,599)	2,732
DEI Other				17,234	17,234
DEI Power Delivery		6,618		7,344	13,962
DEI President and Staff				514	514
DEK Customer		11,064		59,723	70,787
DEK Fossil		306,306		1,898,396	2,204,702
DEK Gas		95		708	803
DEK Power Delivery		1,588,456	(968,072)	422,909	1,056,758
DEP Central Progs Svcs	13,465	9,060		24,027	33,087
DEP Environmental				(44)	(44)
DEP Fleet Maint Svcs	0			311	311
DEP Fossil Hydro				1,868	1,868
DEP Gen Ops Support			(6,749)		(6,749)
DEP Nuclear	0	1		168	170
DEP Org Effectiveness	0	0		11,225	11,226
DEP Other				55,619	55,619
DEP Other misc				69	69
DEP Power Delivery	1	1,306		22,436	23,743
DEP Regional Svcs				465	465
DEP Retail		639		10,237	10,877
Duke Energy Ohio - RU	1,390	251,510	25,398	212,841	491,140
Marketing & Customer Engagemen		214	636	17,922	18,772
Piedmont Gas - Customer				52	52
Piedmont Gas - Delivery	1	0		1,016	1,017
Piedmont Gas - Other	1			34	34
SrvCo Coal Combustion Products		35,740	253	7,275	43,268
SrvCo Construct & Proj Mgmt	169		23,260	5,289	28,718
SrvCo Customer Service	1	53,796	16,586	330,780	401,162
SrvCo Enterprise Business Svs	541,273	245,234	12,440	798,060	1,595,816
SrvCo EnviroHealthSafety	40	69,751	26,785	125,976	222,552
SrvCo Fossil Hydro Total		40,048		987,949	1,027,997
SrvCo Gas				129	191
SrvCo Gen Support	0	62		17,902	18,406
SrvCo Nuclear	504			280	280
SrvCo Other	1,481	58,855	372	344,055	404,762
SrvCo Power Delivery	1,326	1,081,766	786,784	650,192	2,520,069

Actual - 9 months ending September 2019

See second query for department detail

DEP Power Delivery	1	1,703		27,124	28,828
DEP Regional Svcs				635	635
DEP Retail		1,006		12,920	13,926
Duke Energy Ohio - RU	1,478	310,348	30,488	276,654	618,968
Marketing & Customer Engagemen		262	947	23,360	24,569
Piedmont Gas - Customer				48	48
Piedmont Gas - Delivery	1	0		1,074	1,075
Piedmont Gas - Other	1			34	34
Srvco Coal Combustion Products		39,521	253	9,316	49,090
SrvCo Construct & Proj Mgmt	169		26,965	6,287	33,421
SrvCo Customer Service	1	66,371	17,256	409,526	493,153
SrvCo Enterprise Business Svs	675,007	315,792	15,372	944,497	1,950,668
SrvCo EnviroHealthSafety	52	99,229	33,518	155,287	288,087
SrvCo Fossil Hydro Total		51,023		1,264,066	1,315,090
SrvCo Gas	0	62		143	206
SrvCo Gen Support	549			21,449	21,998
SrvCo Nuclear				338	338
SrvCo Other	1,766	70,648	1,193	452,304	525,911
SrvCo Power Delivery	1,329	1,371,840	967,000	813,971	3,154,140
Jun 2019					
100 Org Effectiveness		16,058		2,984	19,042
110 Central Progs Svcs		108,104		125,752	233,856
110 Regional Svcs		483,790		91,098	574,888
Corporate Governance DiscOps	24,454	2,176		100,088	126,718
DE Renewables & Transmission	0			7	8
DEC Central Programs Services		29,914		43,985	73,899
DEC Coal Combustion Products	1	149,549		9,828	159,377
DEC Customer		16,987		223,336	240,324
DEC Customer Experience	169	2,935		63,954	67,058
DEC Environmental				983	983
DEC Fleet Maint Svcs		4,144		26,839	30,983
DEC Fossil Hydro	0	5		10,900	10,905
DEC Gen Ops Support		2,678		1,564	4,242
DEC Nuclear	5	5,876		551	6,432
DEC Org Effectiveness				31,671	31,671
DEC Other		338		97,047	97,385
DEC Other Misc	1	3,897	36	49,857	54,546
DEC Power Delivery		58,806	5,615	137,656	203,018
DEC President & Staff	941			31,666	31,666
DEC Rates				123	123
DEC Regional Svcs				34,686	34,686
DEC Wholesale Pwr & Rnwable Gen	0	135	366	14,612	15,113
DEF Central Progs Svcs		94		672	766
DEF Fleet Maint Svcs		765		2,085	2,850
DEF Fossil Hydro				28	28
DEF Org Effectiveness				1,484	1,484
DEF Other	44	12		9,368	9,425
DEF Power Delivery	1	3,198		14,215	17,414
DEF Regional Svcs				1,278	1,278
DEF Retail		2,551		7,485	10,035
DEI Central Progs Svcs		9,237		2,639	11,876
DEI Coal Combustion Products		365,202		27,550	392,752

Actual - 9 months ending September 2019

See second query for department detail

DEI Customer				11,898	11,898
DEI Fossil Hydro			(1,599)	2,732	2,732
DEI Fossil Hydro Gen Support		4,331	776	776	776
DEI Other			24,067	24,067	24,067
DEI Power Delivery		12,216	17,104	29,320	29,320
DEI President and Staff			740	740	740
DEK Customer		14,561	89,716	104,277	104,277
DEK Fossil		425,036	2,780,851	3,205,887	3,205,887
DEK Gas		95	891	986	986
DEK Other		3,674		3,674	3,674
DEK Power Delivery			629,108	1,577,200	1,577,200
DEP Central Progs Svcs		22,250	2,379,880	52,533	55,348
DEP Environmental				(44)	(44)
DEP Fleet Maint Svcs				801	801
DEP Fossil Hydro				2,430	2,430
DEP Gen Ops Support				(6,749)	(6,749)
DEP Nuclear		0		171	173
DEP Org Effectiveness		0	1	16,614	16,615
DEP Other		0	0	83,964	83,964
DEP Other misc		0	0	229	229
DEP Power Delivery		1	2,145	33,197	35,343
DEP Regional Svcs				777	777
DEP Retail				16,503	17,861
Duke Energy Ohio - RU		1,693	364,670	363,956	761,865
EH&S - Midwest			120		120
Marketing & Customer Engagemen			517	1,240	
Piedmont Gas - Customer				28,685	30,442
Piedmont Gas - Delivery		2	0	49	49
Piedmont Gas - Other		1		1,101	1,103
Srvco Coal Combustion Products			43,405	11,729	55,387
SrvCo Construct & Proj Mgmt				253	38
SrvCo Customer Service		169		31,219	38,655
SrvCo Enterprise Business Svs		1	80,586	7,267	88,853
SrvCo EnviroHealthSafety		808,979	397,747	468,653	581,810
SrvCo Fossil Hydro Total		62	120,906	17,977	2,367,660
SrvCo Gas			63,293	180,101	336,975
SrvCo Gen Support		0	62	1,493,053	1,556,346
SrvCo Nuclear		16,266		166	228
SrvCo Other		2,091	83,800	26,262	42,528
SrvCo Power Delivery		6,230	1,693,367	417	417
				537,068	624,603
				968,289	3,824,002
Q3 2019					
Jul 2019					
100 Org Effectiveness			16,114	3,512	19,626
110 Central Progs Svcs			114,251	149,194	263,445
110 Regional Svcs			550,059	109,595	659,654
Corporate Governance DiscOps			2,530	114,220	145,076
DE Renewables & Transmission		0		7	8
DEC Central Programs Services			33,468	51,001	84,468
DEC Coal Combustion Products		1	164,570	11,552	176,122
DEC Customer			18,843	258,664	277,508
DEC Customer Experience		171	3,720	73,745	77,635
DEC Environmental				1,037	1,037

Actual - 9 months ending September 2019

See second query for department detail

DEC Fleet Maint Svcs			4,144	43,901	48,045
DEC Fossil Hydro	0	5		11,558	11,563
DEC Fossil Hydro Gen Support				15	15
DEC Gen Ops Support		3,191		1,834	5,024
DEC Nuclear	6	5,876		1,375	7,257
DEC Org Effectiveness				36,101	36,101
DEC Other		381		110,095	110,476
DEC Other Misc	1	4,237	36	981	63,569
DEC Power Delivery	942	64,930	6,258	160,470	232,599
DEC President & Staff				36,195	36,195
DEC Rates				123	123
DEC Regional Svcs				34,714	34,714
DEC Wholesale Pwr & Rnwable Gen	0	135		17,335	17,836
DEF Central Progs Svcs		154		865	1,018
DEF Fleet Maint Svcs		1,017		2,679	3,697
DEF Fossil Hydro				28	28
DEF Org Effectiveness				1,718	1,718
DEF Other	52	12		11,169	11,233
DEF Power Delivery	1	4,029		15,537	19,567
DEF Regional Svcs				1,375	1,375
DEF Retail		3,381		8,873	12,254
DEI Central Progs Svcs		10,679		3,051	13,730
DEI Coal Combustion Products		416,285		31,914	448,199
DEI Customer				13,440	13,440
DEI Fossil Hydro		4,331		(1,599)	2,732
DEI Fossil Hydro Gen Support				776	776
DEI Other				27,358	27,358
DEI Power Delivery	515	9,243		18,197	27,955
DEI President and Staff				861	861
DEK Customer		15,747		102,434	118,181
DEK Fossil		429,213	(3,644)	3,184,997	3,610,566
DEK Gas		95		746	840
DEK Other		3,674			3,674
DEK Power Delivery		2,746,463	(1,684,809)	730,349	1,818,526
DEP Central Progs Svcs	26,523	52,168		5,857	58,025
DEP Environmental				(44)	(44)
DEP Fleet Maint Svcs				3,301	3,301
DEP Fossil Hydro				2,963	2,963
DEP Gen Ops Support	0		(6,749)		(6,749)
DEP Nuclear	0	1		173	175
DEP Org Effectiveness	0	0		18,870	18,870
DEP Other		0		97,719	97,719
DEP Other misc				229	229
DEP Power Delivery	2	2,508		37,998	40,508
DEP Regional Svcs				830	830
DEP Retail		1,705		19,321	21,026
Duke Energy Ohio - RU	2,149	435,802	33,652	437,404	909,007
EH&S - Midwest		664			664
Marketing & Customer Engagemen		638	1,506	33,956	36,100
Piedmont Gas - Customer				49	49
Piedmont Gas - Delivery	2	0		1,126	1,128
Piedmont Gas - Other	1			40	41

Actual - 9 months ending September 2019

See second query for department detail

Srvco Coal Combustion Products								13,778	61,153
SrvCo Construct & Proj Mgmt	169	47,122	253	34,841	7,985			42,995	
Srvco Customer Service	1	98,235	33,800		538,975			671,012	
SrvCo Enterprise Business Svs	932,539	473,811	21,343		1,328,509	207		2,756,409	
SrvCo EnviroHealthSafety	63	128,751	39,289		210,237			378,341	
SrvCo Fossil Hydro Total		71,804			1,690,922			1,762,726	
SrvCo Gas	0	62			166			228	
SrvCo Gen Support	16,424				30,082			46,506	
SrvCo Nuclear					474			474	
SrvCo Other	2,346	97,314	7,709		611,904			719,273	
SrvCo Power Delivery	6,231	2,060,567	1,338,803		1,113,565			4,519,165	
Aug 2019									
100 Org Effectiveness		16,166			4,098			20,265	
110 Central Progs Svcs		120,053			170,375			290,428	
110 Regional Svcs		626,851			126,571			753,422	
Corporate Governance DiscOps		2,691			130,038			165,821	
DE Renewables & Transmission					7			8	
DEC Central Programs Services		37,842			58,896			96,738	
DEC Coal Combustion Products		179,300			13,128			192,428	
DEC Customer	1	21,037			295,680			316,718	
DEC Customer Experience	5	5,717			86,256			91,978	
DEC Environmental					1,092			1,092	
DEC Fleet Maint Svcs		6,267			60,625			66,892	
DEC Fossil Hydro	0	5			12,082			12,087	
DEC Fossil Hydro Gen Support					15			15	
DEC Gen Ops Support		3,666			2,135			5,801	
DEC Nuclear	6	5,876			1,384			7,266	
DEC Org Effectiveness					40,737			40,737	
DEC Other		487			123,653			124,140	
DEC Other Misc	2	4,809	36		67,172	1,264		73,282	
DEC Power Delivery	164	71,874	6,834		180,279			259,151	
DEC President & Staff					41,120			41,120	
DEC Rates					123			123	
DEC Regional Svcs					34,127			34,127	
DEC Wholesale Pwr & Rnwable Gen		135			20,205			20,706	
DEF Central Progs Svcs		199			1,087			1,286	
DEF Coal Combustion Products					8			8	
DEF Fleet Maint Svcs		1,272			3,337			4,608	
DEF Fossil Hydro					28			28	
DEF Org Effectiveness					1,959			1,959	
DEF Other	64	12			13,322			13,398	
DEF Power Delivery	2	4,900			16,355			21,257	
DEF Regional Svcs					1,480			1,480	
DEF Retail		4,124			10,181			14,305	
DEI Central Progs Svcs		12,335			3,525			15,860	
DEI Coal Combustion Products		474,947			37,699			512,646	
DEI Customer					15,806			15,806	
DEI Fossil Hydro		4,331			(1,599)			2,732	
DEI Fossil Hydro Gen Support					776			776	
DEI Other					31,172			31,172	
DEI Power Delivery	515	10,904			20,614			32,034	
DEI President and Staff					1,484			1,484	

Actual - 9 months ending September 2019

See second query for department detail

DEK Customer	21,783		120,755	142,538
DEK Fossil	489,017	(8,073)	3,816,711	4,297,654
DEK Gas	95		1,010	1,105
DEK Other	3,674		3,674	3,674
DEK Power Delivery			867,881	2,232,300
DEP Central Progs Svcs	30,896	(1,912,461)	6,479	60,468
DEP Environmental			(44)	(44)
DEP Fleet Maint Svcs			3,700	3,700
DEP Fossil Hydro			3,523	3,523
DEP Gen Ops Support	0	(6,749)	(6,749)	(6,749)
DEP Nuclear	0		173	175
DEP Org Effectiveness	0		21,810	21,811
DEP Other	0		112,655	112,655
DEP Other misc			229	229
DEP Power Delivery	2		42,840	45,850
DEP Regional Svcs			152	152
DEP Retail			22,408	24,537
Duke Energy Ohio - RU	3,282	35,408	531,781	1,110,993
EH&S - Midwest			1,182	1,182
Marketing & Customer Engagemen		1,802	39,934	42,521
Piedmont Gas - Customer	2		49	49
Piedmont Gas - Delivery			1,152	1,154
Piedmont Gas - Other	1		40	41
Srvco Coal Combustion Products		253	16,032	67,562
SrvCo Construct & Proj Mgmt	169	38,985	8,863	51,479
Srvco Customer Service	1	35,075	634,272	781,262
SrvCo Enterprise Business Svs	1,083,244	24,762	1,536,569	3,201,650
SrvCo EnviroHealthSafety	64	42,821	240,981	418,906
SrvCo Fossil Hydro Total			1,926,442	2,003,167
SrvCo Gas	0		185	248
SrvCo Gen Support	16,432		34,106	50,538
SrvCo Nuclear			548	548
SrvCo Other	2,607	17,321	689,544	821,926
SrvCo Power Delivery	6,231	1,549,099	1,306,201	5,404,155
Sep 2019				
100 Org Effectiveness			4,576	20,742
110 Central Progs Svcs			192,349	320,935
110 Regional Svcs			147,903	850,449
Corporate Governance DiscOps			142,368	181,784
DE Renewables & Transmission			7	8
DEC Central Programs Services			66,438	108,403
DEC Coal Combustion Products			14,795	209,526
DEC Customer	1		335,849	358,855
DEC Customer Experience	4		98,715	106,119
DEC Environmental			1,147	1,147
DEC Fleet Maint Svcs			67,774	74,589
DEC Fossil Hydro			13,755	13,760
DEC Fossil Hydro Gen Support	0		15	15
DEC Gen Ops Support			2,386	6,577
DEC Nuclear			1,429	7,420
DEC Org Effectiveness	115	199	45,774	45,973
DEC Other			137,473	138,029

Actual - 9 months ending September 2019

See second query for department detail

DEC Other Misc	2	13,663	36	1,535	75,820	91,056
DEC Power Delivery	317	76,772	7,557		199,511	284,157
DEC President & Staff					46,275	46,275
DEC Rates					123	123
DEC Regional Svcs					34,127	34,127
DEC Wholesale Pwr & Renewable Gen	0	135		366	23,129	23,631
DEF Central Progs Svcs		199			1,234	1,433
DEF Coal Combustion Products					8	8
DEF Fleet Maint Svcs		1,399			3,670	5,069
DEF Fossil Hydro					124	124
DEF Org Effectiveness					2,190	2,190
DEF Other	70	27			15,499	15,596
DEF Power Delivery	1	5,726			16,462	22,189
DEF Regional Svcs					1,529	1,529
DEF Retail		5,022			11,479	16,501
DEI Central Progs Svcs		13,861			3,961	17,822
DEI Coal Combustion Products		531,779			43,428	575,207
DEI Customer					17,914	17,914
DEI Fossil Hydro		4,331			(1,599)	2,732
DEI Fossil Hydro Gen Support					776	776
DEI Other					34,881	34,881
DEI Power Delivery	515	8,475			21,878	30,868
DEI President and Staff					1,598	1,598
DEK Customer		23,109			130,955	154,064
DEK Fossil		521,417	(12,093)		4,271,956	4,781,280
DEK Gas		95			1,257	1,352
DEK Other		3,674				3,674
DEK Power Delivery		3,656,852	(2,148,297)		942,584	2,485,293
DEP Central Progs Svcs	34,153	56,046			6,837	62,883
DEP Environmental					(33)	(33)
DEP Fleet Maint Svcs					3,700	3,700
DEP Fossil Hydro	0			(6,749)	4,210	4,210
DEP Gen Ops Support						(6,749)
DEP Nuclear	0	1			173	175
DEP Org Effectiveness	1	0			24,863	24,864
DEP Other		0			127,212	127,212
DEP Other misc					229	229
DEP Power Delivery	2	3,339			47,121	50,462
DEP Regional Svcs					157	157
DEP Retail		2,473			25,663	28,136
Duke Energy Ohio - RU	3,674	577,306	35,408		575,313	1,191,701
EH&S - Midwest		1,696				1,696
Marketing & Customer Engagemen		911	2,110		45,496	48,518
Piedmont Gas - Customer	2	0			49	49
Piedmont Gas - Delivery	1				1,246	1,248
Piedmont Gas - Other					40	41
Service Company Alloc Offsets					0	0
SrvCo Coal Combustion Products	169	55,056	253		17,753	73,062
SrvCo Construct & Proj Mgmt		4,321	42,567		9,590	56,648
SrvCo Customer Service	1	125,721	50,688		685,004	861,415
SrvCo Enterprise Business Svs	1,213,890	650,831	27,767	0	1,729,499	3,621,987
SrvCo EnviroHealthSafety	65	147,500	46,372		279,248	473,184

Actual - 9 months ending September 2019

See second query for department detail

SrvCo Fossil Hydro Total	86,338	2,148,851	2,235,189
SrvCo Gas	0	208	271
SrvCo Gen Support	16,440	36,878	53,398
SrvCo Nuclear		621	621
SrvCo Other	2,726	764,065	916,714
SrvCo Power Delivery	6,232	1,463,132	6,033,277
Grand Total	1,374,268	11,065,513	(77,059)
		15,817,762	28,182,558
		2,074	

Actual - 12 months ending December 2018

See second query for department detail

Business Unit Hierarchy Account CB Responsibility Center Level 02 Name Resource Type CB	DUKE_ENERGY_KY_ELEC - Duke Energy Kentucky Electric (Multiple Items) (Multiple Items)
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YTD Actual Amount	Column Labels WTB_MANG_REPORT ALL_ACCOUNTS - All Accounts BALANCE_SHEET - Balance Sheet ASSET - Assets	CAPITAL - Capital	INDIRECT - Indirect	LIABILITY - Liabilities	INC_STMT - Income Statement INCOME_CO - Income, Continuing Operations O&M_OTHER_EXPENSES - O&M and Other Expenses	Grand Total
Q1 2018						
Jan 2018		73,963	841,231	(46,861)	408	1,612,380
Feb 2018		240,584	1,839,596	(30,315)	868	3,302,076
Mar 2018		421,190	3,239,618	(45,646)	1,297	5,660,140
Q2 2018						
Apr 2018		545,466	4,570,966	(48,612)	1,693	7,489,333
May 2018		672,779	5,796,358	(69,625)	2,146	9,351,307
Jun 2018		801,800	7,000,655	(87,321)	1,643	11,362,293
Q3 2018						
Jul 2018		908,173	7,963,312	(118,947)	2,039	12,902,703
Aug 2018		1,047,357	9,167,403	(131,421)	2,439	14,750,395
Sep 2018		1,173,560	10,167,205	(158,026)	2,790	16,427,449
Q4 2018						
Oct 2018		1,295,105	11,138,185	(162,774)	3,189	18,054,088
Nov 2018		1,406,612	12,042,846	(195,137)	3,472	19,787,406
Dec 2018		1,612,609	12,951,914	(273,360)	(928)	21,136,742
Grand Total		1,612,609	12,951,914	(273,360)	(928)	35,426,977
						1,338,321

Business Unit Hierarchy Account CB Responsibility Center Level 02 Name Resource Type CB	DUKE_ENERGY_KY_ELEC - Duke Energy Kentucky Electric (Multiple Items) (Multiple Items)
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YTD Actual Amount	Column Labels WTB_MANG_REPORT ALL_ACCOUNTS - All Accounts BALANCE_SHEET - Balance Sheet ASSET - Assets	CAPITAL - Capital	INDIRECT - Indirect	LIABILITY - Liabilities	INC_STMT - Income Statement INCOME_CO - Income, Continuing Operations O&M_OTHER_EXPENSES - O&M and Other Expenses	Grand Total
Q1 2018						
Jan 2018		3,259	39,472	82,728	174	3,433
100 Org Effectiveness						59,989
110 Central Progs Svcs						98,131
110 Regional Svcs						16,512
Corporate Governance DiscOps	3,194	132	8,336	2,867	8,905	8,336
DE Renewables & Transmission						11,772
DEC Central Programs Services						588
DEC Coal Combustion Products						8,557

Actual - 12 months ending December 2018

See second query for department detail

DEC Customer	0	449		27,165	27,614
DEC Customer Experience	415	203		8,212	8,829
DEC Environmental	0	62		142	204
DEC Fleet Maint Svcs				2,910	2,910
DEC Fossil Hydro				1,130	1,130
DEC Gen Ops Support		451		132	583
DEC Nuclear	1			680	681
DEC Org Effectiveness				4,427	4,427
DEC Other				15,822	15,827
DEC Other Misc		5		5,563	6,082
DEC Power Delivery	1	250	269	23,766	26,508
DEC President & Staff	210	2,532		3,865	3,865
DEC Regional Svcs				411	411
DEC Wholesale Pwr & Rnwable Gen	0	109	139	2,902	3,150
DEF Central Progs Svcs		157		515	672
DEF Fleet Maint Svcs				28	28
DEF Fossil Hydro				25	25
DEF Gen Ops Support		111			111
DEF Org Effectiveness				349	349
DEF Other	2	1		2,020	2,023
DEF Power Delivery	0	4,265	56	1,798	6,118
DEF Retail		27		874	902
DEI Central Progs Svcs		1,355		387	1,743
DEI Coal Combustion Products		56,304		1,075	57,379
DEI Customer				1,957	1,957
DEI Other				2,288	2,288
DEI Power Delivery		183		1,418	1,601
DEK Customer		2,054		29,563	31,617
DEK Fossil		6,925	(6,768)	396,735	396,892
DEK Gas		46		39	84
DEK Power Delivery	6,174	326,260	(223,762)	129,757	238,429
DEP Central Progs Svcs		2,029		651	2,680
DEP Coal Combustion Products					
DEP Environmental	0	12		(30)	12
DEP Fleet Maint Svcs		81		175	51
DEP Fossil Hydro				141	175
DEP Gen Ops Support		226		1,189	1,415
DEP Org Effectiveness				2,765	2,765
DEP Other				6,560	6,560
DEP Power Delivery	0	1,447	(6,758)	5,034	(278)
DEP Retail		14		3,028	3,041
Duke Energy Ohio - Com Power		663		43,373	663
Duke Energy Ohio - RU		42,406		3,075	85,845
Marketing & Customer Engagemen	66	230		840	3,304
Piedmont Gas - Customer				857	857
Piedmont Gas - Other				2,387	5,406
Srvco Coal Combustion Products		3,019		845	16,562
Srvco Construct & Proj Mgmt	0	13,158	2,559	73,693	78,984
Srvco Customer Service	0	4,133	1,157	232,992	341,977
Srvco Enterprise Business Svs	57,806	43,447	7,732	27,720	48,612
SrvCo EnviroHealthSafety	5	11,308	9,578	220,907	243,754
SrvCo Fossil Hydro Total		22,847		143	178
SrvCo Gas		35		4,858	6,404
SrvCo Gen Support	10	1,537			

Actual - 12 months ending December 2018

See second query for department detail

SrvCo Nuclear						68
SrvCo Other						87,877
SrvCo Power Delivery			1,874			98,688
Feb 2018	5,967	139,304	167,472		168,503	481,246
100 Org Effectiveness		9,647			398	10,046
110 Central Progs Svcs		104,948			40,009	144,958
110 Regional Svcs		182,863			25,824	208,687
Corporate Governance DiscOps	7,742	132			27,257	35,130
DE Renewables & Transmission		8,336			8,336	
DEC Central Programs Services		10,039			17,977	28,016
DEC Coal Combustion Products		25,792			1,244	27,036
DEC Customer	0	880			56,261	57,141
DEC Customer Experience	415	282			19,293	19,990
DEC Environmental	0	101			294	395
DEC Fleet Maint Svcs		1,424			23,953	25,377
DEC Fossil Hydro		795			2,419	2,419
DEC Gen Ops Support					279	1,074
DEC Nuclear	1	22			1,118	1,120
DEC Org Effectiveness		(1)			30,609	30,608
DEC Other		443			11,227	12,248
DEC Other Misc	1	4,303	102	578	49,253	54,082
DEC Power Delivery					8,027	8,027
DEC President & Staff					801	801
DEC Regional Svcs		208		291	5,840	6,339
DEC Wholesale Pwr & Rnwable Gen	0	270			858	1,128
DEF Central Progs Svcs					160	160
DEF Fleet Maint Svcs					47	47
DEF Fossil Hydro		111			115	227
DEF Gen Ops Support					592	592
DEF Org Effectiveness	4	1			4,256	4,261
DEF Other		6,233	56		2,938	9,253
DEF Power Delivery	26	27			1,888	1,915
DEF Retail		2,767			790	3,557
DEI Central Progs Svcs		110,535			2,149	112,685
DEI Coal Combustion Products					3,975	3,975
DEI Customer					4,688	4,688
DEI Other		1,649			(5,006)	(3,357)
DEI Power Delivery		8,637			67,878	76,515
DEK Customer		26,924	(13,827)		816,785	829,882
DEK Fossil		46			97	143
DEK Gas		663,559	(375,716)		262,161	642,711
DEK Power Delivery	92,707	4,213			1,315	5,528
DEP Central Progs Svcs						27
DEP Coal Combustion Products		27			(23)	70
DEP Environmental	0	92			434	434
DEP Fleet Maint Svcs					893	893
DEP Fossil Hydro					2,239	2,505
DEP Gen Ops Support		267			5,660	5,660
DEP Org Effectiveness					13,983	13,983
DEP Other					9,700	9,700
DEP Power Delivery	0	2,258	(6,573)		14	14
DEP Regional Svcs		711			6,420	7,131
DEP Retail		1,024				1,024
Duke Energy Ohio - Com Power						

Actual - 12 months ending December 2018

See second query for department detail

Duke Energy Ohio - RU	66	101,405		77,187	178,658
Marketing & Customer Engagemen		467		6,334	6,801
Piedmont Gas - Customer				1,593	1,593
Piedmont Gas - Delivery	0			466	466
Piedmont Gas - Other				2,359	2,359
Srvco Coal Combustion Products		6,523		4,878	11,401
SrvCo Construct & Proj Mgmt	0	25,738	5,018	1,675	32,432
Srvco Customer Service	0	8,966	1,792	155,259	166,017
SrvCo Enterprise Business Svs	132,969	91,630	15,700	476,788	717,087
SrvCo EnviroHealthSafety	12	22,675	20,930	57,307	100,924
SrvCo Fossil Hydro Total		73,630		446,158	519,788
SrvCo Gas		45		262	307
SrvCo Gen Support	20	1,560		10,231	11,811
SrvCo Nuclear				137	137
SrvCo Other	227	17,543	4,245	180,765	202,779
SrvCo Power Delivery	5,968	309,846	317,959	344,527	978,300
Mar 2018					
100 Org Effectiveness		20,261		1,621	21,882
110 Central Progs Svcs	0	173,576		66,604	240,180
110 Regional Svcs		305,588		60,381	365,969
Corporate Governance DiscOps	12,781	132		41,593	54,506
DE Renewables & Transmission		8,336		8,336	8,336
DEC Central Programs Services		23,356		29,177	52,533
DEC Coal Combustion Products		37,740		2,135	39,875
DEC Customer	0	1,298		91,153	92,452
DEC Customer Experience	422	405		30,815	31,642
DEC Environmental	0	110		510	621
DEC Fleet Maint Svcs		6,017		45,258	51,275
DEC Fossil Hydro				3,775	3,775
DEC Gen Ops Support	3	1,155		426	1,581
DEC Nuclear		30		3,440	3,442
DEC Org Effectiveness		(1)		14,005	14,035
DEC Other		652		45,436	45,436
DEC Other Misc	1	873		17,363	18,890
DEC Power Delivery	599	8,038	1,163	77,613	87,414
DEC President & Staff				12,261	12,261
DEC Regional Svcs				1,224	1,224
DEC Wholesale Pwr & Rnwable Gen	1	303		9,265	9,993
DEF Central Progs Svcs		280		982	1,262
DEF Fleet Maint Svcs				160	160
DEF Fossil Hydro		111		68	68
DEF Gen Ops Support				115	227
DEF Org Effectiveness	7	4		945	945
DEF Power Delivery	59	7,714	56	6,612	6,622
DEF Retail	0	27		4,117	11,946
DEI Central Progs Svcs		4,081		2,773	2,800
DEI Coal Combustion Products		164,204		1,166	5,246
DEI Customer				3,227	167,432
DEI Fossil Hydro		4,200		6,552	6,552
DEI Other				18,503	22,704
DEI Power Delivery	0	2,822		6,954	6,954
DEK Customer	20	16,192		(3,592)	(770)
DEK Fossil		62,024	(17,838)	116,271	132,483
				1,633,753	1,677,939

Actual - 12 months ending December 2018

See second query for department detail

DEK Gas	83	171	254
DEK Power Delivery	164,481	1,129,971	(585,072)
DEP Central Progs Svcs	7,430	461,819	1,171,199
DEP Coal Combustion Products	43	1,891	9,321
DEP Environmental	0	(23)	75
DEP Fleet Maint Svcs	97	721	721
DEP Fossil Hydro	292	1,188	1,188
DEP Gen Ops Support	181	2,885	3,357
DEP Org Effectiveness	0	9,611	9,611
DEP Other	0	23,647	23,647
DEP Power Delivery	0	14,954	11,630
DEP Regional Svcs	3,065	14	14
DEP Retail	1,756	9,704	11,460
Duke Energy Ohio - Com Power	1,024	1,024	1,024
Duke Energy Ohio - RU	66	238,875	368,522
Marketing & Customer Engagemen	608	9,973	10,581
Piedmont Gas - Customer	0	1,209	1,209
Piedmont Gas - Delivery	0	1,030	1,031
Piedmont Gas - Other	0	4,027	4,027
SrvCo Coal Combustion Products	10,254	7,037	17,291
SrvCo Construct & Proj Mgmt	0	2,501	49,055
SrvCo Customer Service	0	247,251	310,953
SrvCo Enterprise Business Svs	235,193	720,365	1,115,105
SrvCo EnviroHealthSafety	19	86,182	163,134
SrvCo Fossil Hydro Total	141,788	741,820	883,609
SrvCo Gas	45	1,606	1,651
SrvCo Gen Support	31	15,523	17,110
SrvCo Nuclear	0	207	207
SrvCo Other	339	266,234	301,020
SrvCo Power Delivery	7,168	546,348	1,588,662
Q2 2018			
Apr 2018			
100 Org Effectiveness	28,596	2,189	30,785
110 Central Progs Svcs	0	87,753	342,442
110 Regional Svcs	445,195	82,853	528,048
Corporate Governance DiscOps	17,658	67,551	85,341
DE Renewables & Transmission	132	8,336	8,336
DEC Central Programs Services	39,208	42,372	81,579
DEC Coal Combustion Products	48,345	3,025	51,371
DEC Customer	0	120,235	121,922
DEC Customer Experience	446	40,496	41,598
DEC Environmental	0	892	1,003
DEC Fleet Maint Svcs	110	55,926	76,589
DEC Fossil Hydro	20,663	4,759	4,759
DEC Gen Ops Support	1,406	571	1,978
DEC Nuclear	3	3,494	3,497
DEC Org Effectiveness	45	18,833	18,878
DEC Other	0	63,652	63,652
DEC Other Misc	(1)	23,761	25,761
DEC Power Delivery	1	103,032	118,908
DEC President & Staff	746	16,454	16,454
DEC Regional Svcs	12,120	1,168	1,168
DEC Wholesale Pwr & Rnwable Gen	1	12,655	13,552
DEF Central Progs Svcs	371	1,158	1,490
	332		

Actual - 12 months ending December 2018

See second query for department detail

DEF Fleet Maint Svcs					160	160
DEF Fossil Hydro		0			125	125
DEF Gen Ops Support		111			115	227
DEF Org Effectiveness					1,198	1,198
DEF Other	9	9			9,081	9,099
DEF Power Delivery	94	9,538	56		5,559	15,246
DEF Retail	0	27			3,774	3,801
DEI Central Progs Svcs		5,359			1,531	6,890
DEI Coal Combustion Products		240,172			3,526	243,698
DEI Customer					8,735	8,735
DEI Fossil Hydro		4,200			46,116	50,316
DEI Other					9,531	9,531
DEI Power Delivery	0	4,435			(1,833)	2,602
DEK Customer	20	20,144			148,549	168,712
DEK Fossil		99,581	(17,838)		2,154,526	2,236,269
DEK Gas		83			171	254
DEK Power Delivery	167,800	1,506,299	(771,853)		579,106	1,481,352
DEP Central Progs Svcs		9,649			2,448	12,097
DEP Coal Combustion Products		58			58	58
DEP Environmental	0	97			(23)	75
DEP Fleet Maint Svcs					891	891
DEP Fossil Hydro		0			1,628	1,628
DEP Gen Ops Support		313	538		3,601	4,451
DEP Nuclear					32	32
DEP Org Effectiveness		34			12,156	12,156
DEP Power Delivery	4	3,538	(6,206)		33,074	33,107
DEP Regional Svcs					20,550	17,885
DEP Retail		1,756			14	14
Duke Energy Ohio - Com Power		1,024			12,891	14,646
Duke Energy Ohio - RU		361,115			1,024	1,024
Marketing & Customer Engagemen	377	700			175,014	536,506
Piedmont Gas - Customer					13,225	13,925
Piedmont Gas - Delivery	0				1,914	1,914
Piedmont Gas - Other					1,596	1,597
Srvco Coal Combustion Products		13,215			5,664	5,664
Srvco Construct & Proj Mgmt	0	52,688	10,118		9,366	22,580
Srvco Customer Service	0	66,149	2,865		3,350	66,158
SrvCo Enterprise Business Svs	350,612	191,650	21,572	0	331,786	400,801
SrvCo EnviroHealthSafety	26	76,401	37,232		934,802	1,498,635
SrvCo Fossil Hydro Total		237,784			114,120	227,778
SrvCo Gas		586			988,388	1,226,173
SrvCo Gen Support	41	1,557			5,633	4,218
SrvCo Nuclear					20,899	22,496
SrvCo Other	457	38,985	8,792		274	274
SrvCo Power Delivery	7,170	760,990	663,102		348,848	397,082
May 2018					726,116	2,157,378
100 Org Effectiveness		36,239			2,518	38,757
110 Central Progs Svcs	0	325,394			112,635	438,029
110 Regional Svcs		577,216			94,572	671,788
Corporate Governance DiscOps	21,739	132			90,029	111,900
DE Renewables & Transmission		8,336			11	8,346
DEC Central Programs Services		48,614			52,803	101,417
DEC Coal Combustion Products		68,547			3,842	72,389

Actual - 12 months ending December 2018

See second query for department detail

DEC Customer	0	2,031		150,261	152,291
DEC Customer Experience	458	1,088		48,945	50,492
DEC Environmental	0	110		1,036	1,147
DEC Fleet Maint Svcs		24,933		58,670	83,603
DEC Fossil Hydro				5,998	5,998
DEC Gen Ops Support		1,727		715	2,442
DEC Nuclear	4			3,483	3,487
DEC Org Effectiveness		45		23,465	23,510
DEC Other		(1)		80,604	80,604
DEC Other Misc	329	1,043	1,480	29,261	32,113
DEC Power Delivery	874	14,605	4,606	128,724	148,810
DEC President & Staff				20,653	20,653
DEC Regional Svcs				1,706	1,706
DEC Wholesale Pwr & Rnwable Gen	1	472	666	15,787	16,926
DEF Central Progs Svcs		342		1,306	1,648
DEF Fleet Maint Svcs		0		160	160
DEF Fossil Hydro		111		220	220
DEF Gen Ops Support		11		115	227
DEF Org Effectiveness	11	11		1,448	1,448
DEF Other	113	8,832	56	11,177	11,199
DEF Power Delivery	0	27		6,430	15,431
DEF Retail		6,513		4,919	4,947
DEI Central Progs Svcs		308,960		5,306	11,819
DEI Coal Combustion Products				3,765	312,726
DEI Customer		8,541		10,511	10,511
DEI Fossil Hydro				63,568	72,109
DEI Other				12,176	12,176
DEI Power Delivery	0	6,053		(665)	5,388
DEK Customer	20	25,937		182,278	208,235
DEK Fossil		151,050	(17,838)	2,753,025	2,886,237
DEK Gas		141		228	369
DEK Power Delivery	170,478	1,867,008	(960,357)	699,420	1,776,549
DEP Central Progs Svcs		11,528		2,968	14,497
DEP Coal Combustion Products		73			73
DEP Environmental	0	97		(23)	75
DEP Fleet Maint Svcs		951		1,071	1,071
DEP Fossil Hydro		332		2,118	3,068
DEP Gen Ops Support		997		4,264	5,593
DEP Nuclear				33	33
DEP Org Effectiveness				14,745	14,745
DEP Other	4	3,741	(5,961)	42,170	42,219
DEP Power Delivery				26,647	24,430
DEP Regional Svcs				14	14
DEP Retail		1,756		15,991	17,747
Duke Energy Ohio - Com Power		1,024		1,024	1,024
Duke Energy Ohio - RU	394	465,988	650	213,168	680,201
Marketing & Customer Engagemen		725		16,481	17,206
Piedmont Gas - Customer				2,196	2,196
Piedmont Gas - Delivery	0			1,885	1,886
Piedmont Gas - Other				6,962	6,962
SrvCo Coal Combustion Products		15,548		11,497	27,046
SrvCo Construct & Proj Mgmt	3	63,820	12,248	4,137	80,207
SrvCo Customer Service	(30)	71,746	3,539	417,668	492,923
SrvCo Enterprise Business Svcs	470,558	243,529	22,943	1,151,757	1,888,787
			0		

Actual - 12 months ending December 2018

See second query for department detail

SrvCo EnviroHealthSafety	32	101,172	42,228	145,730	289,163
SrvCo Fossil Hydro Total		314,879		1,222,028	1,536,908
SrvCo Gas		586		3,641	4,227
SrvCo Gen Support	50	1,557		25,816	27,423
SrvCo Nuclear				324	324
SrvCo Other	567	50,972	9,751	427,439	488,729
SrvCo Power Delivery	7,170	952,227	817,513	909,472	2,686,383
Jun 2018					
100 Org Effectiveness		39,798		2,915	42,713
110 Central Progs Svcs	0	369,193		136,073	505,266
110 Regional Svcs		687,676	364	107,519	795,558
Corporate Governance DiscOps	25,781	250		115,824	141,855
DE Renewables & Transmission		8,336		11	8,346
DEC Central Programs Services		52,552		60,847	113,398
DEC Coal Combustion Products		112,982		4,587	117,569
DEC Customer	0	3,306		184,501	187,807
DEC Customer Experience	459	1,769		58,944	61,172
DEC Environmental	0	110		1,191	1,301
DEC Fleet Maint Svcs		24,933		61,876	86,809
DEC Fossil Hydro				7,258	7,258
DEC Gen Ops Support	4	2,028		853	2,881
DEC Nuclear				3,533	3,537
DEC Org Effectiveness	0	1		28,298	28,299
DEC Other		(1)		98,079	98,079
DEC Other Misc	329	1,770	1,220	30,259	33,578
DEC Power Delivery	984	17,086	8,398	153,323	179,791
DEC President & Staff				25,216	25,216
DEC Regional Svcs	1	554	423	1,967	1,967
DEC Wholesale Pwr & Renewable Gen		356		18,755	19,732
DEF Central Progs Svcs				1,458	1,815
DEF Fleet Maint Svcs				160	160
DEF Fossil Hydro				289	289
DEF Gen Ops Support		111		115	227
DEF Gen Ops Support				1,710	1,710
DEF Org Effectiveness	14	24		13,391	13,429
DEF Other	125	9,577	56	7,964	17,722
DEF Power Delivery				331	331
DEF President & Staff				6,435	7,147
DEF Retail	0	712		7,305	14,784
DEI Central Progs Svcs		7,479		3,920	377,935
DEI Coal Combustion Products		374,015		12,203	12,203
DEI Customer				68,847	77,873
DEI Fossil Hydro		9,026		13,849	13,849
DEI Other				640	8,306
DEI Power Delivery	0	7,666		213,836	245,567
DEK Customer	20	31,712	(17,838)	3,378,626	3,551,900
DEK Fossil		191,112		531	723
DEK Gas		192		887,761	2,134,720
DEK Power Delivery	173,753	2,230,300	(1,157,095)	3,634	17,231
DEP Central Progs Svcs		13,597			73
DEP Coal Combustion Products					80
DEP Environmental	0	73		(17)	1,208
DEP Fleet Maint Svcs		97		1,208	1,208
DEP Fossil Hydro		951		2,531	3,481
DEP Gen Ops Support		348	1,683	4,768	6,799

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DEP Nuclear					27	27
DEP Org Effectiveness		3,472			17,626	21,097
DEP Other		80			50,869	50,949
DEP Power Delivery	4	3,978	(5,565)		32,713	31,130
DEP Regional Svcs					14	14
DEP Retail					19,190	20,945
Duke Energy Ohio - Com Power		1,756			1,024	1,024
Duke Energy Ohio - RU		1,024			281,918	861,247
Marketing & Customer Engagemen	293	578,385	650		19,968	20,692
Piedmont Gas - Customer		725			2,357	2,357
Piedmont Gas - Delivery	1				3,186	3,187
Piedmont Gas - Other					8,570	8,570
Srvco Coal Combustion Products		19,315			13,790	33,105
Srvco Construct & Proj Mgmt	9	74,616	15,296		5,204	95,124
Srvco Customer Service	31	157,026	4,547		487,197	648,801
SrvCo Enterprise Business Svs	592,047	306,406	24,805	0	1,358,255	2,281,512
SrvCo EnviroHealthSafety	38	116,829	46,766		173,501	337,134
SrvCo Fossil Hydro Total		348,106			1,508,670	1,856,776
SrvCo Gas		586			3,678	4,264
SrvCo Gen Support	60	1,557			31,236	32,853
SrvCo Nuclear					394	394
SrvCo Other	676	62,392	11,452		509,002	583,522
SrvCo Power Delivery	7,170	1,124,714	979,161		1,101,608	3,212,653
Q3 2018						
Jul 2018						
100 Org Effectiveness		48,586			3,448	52,034
110 Central Progs Svcs	0	390,344			153,880	544,225
110 Regional Svcs		756,157	364		124,189	880,709
Corporate Governance DiscOps	30,347	567			121,976	152,890
DE Renewables & Transmission		8,336			11	8,346
DEC Central Programs Services		56,286			67,441	123,727
DEC Coal Combustion Products		131,665			5,214	136,879
DEC Customer	0	4,342			207,959	212,302
DEC Customer Experience	460	1,954			68,957	71,371
DEC Environmental	0	110			1,455	1,566
DEC Fleet Maint Svcs		24,933			64,186	89,119
DEC Fossil Hydro					7,789	7,789
DEC Gen Ops Support	4	2,253			989	3,241
DEC Nuclear					4,409	4,413
DEC Org Effectiveness		1			32,732	32,734
DEC Other	0	(1)			116,105	116,105
DEC Other Misc	329	5,237	1,520		37,650	44,737
DEC Power Delivery	1,122	22,278	9,859		175,484	208,743
DEC President & Staff					29,039	29,039
DEC Regional Svcs					1,797	1,797
DEC Wholesale Pwr & Rnwable Gen	2	644	518		22,098	23,262
DEF Central Progs Svcs		110			1,156	1,266
DEF Fleet Maint Svcs		922			1,943	2,866
DEF Fossil Hydro		0			425	425
DEF Gen Ops Support		111			115	227
DEF Org Effectiveness					1,906	1,906
DEF Other	17	27			15,043	15,087
DEF Power Delivery	132	10,358	56		10,248	20,794
DEF President & Staff					646	646

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DEF Regional Svcs						1
DEF Retail	0	1,310				7,701
DEI Central Progs Svcs		8,833				9,011
DEI Coal Combustion Products		430,040				16,525
DEI Customer						7,979
DEI Fossil Hydro		9,026				438,019
DEI Other						13,620
DEI Power Delivery	0	9,024				68,411
DEK Customer	20	36,449				77,437
DEK Fossil		199,341		(17,838)		15,777
DEK Gas		232				10,558
DEK Power Delivery	175,989	2,588,476	(1,364,717)			279,774
DEP Central Progs Svcs		15,585				3,968,066
DEP Coal Combustion Products		73				798
DEP Environmental	0	97				1,006,779
DEP Fleet Maint Svcs						4,215
DEP Fossil Hydro		951				(13)
DEP Gen Ops Support		371	2,272			1,387
DEP Nuclear		1				2,120
DEP Org Effectiveness		0				3,070
DEP Other		80				8,048
DEP Power Delivery	4	4,289	(5,256)			27
DEP Regional Svcs						20,323
DEP Retail						59,802
Duke Energy Ohio - Com Power	0	1,756				37,297
Duke Energy Ohio - RU		1,024				14
Marketing & Customer Engagemen	293	678,897	650			22,173
Piedmont Gas - Customer		725				259
Piedmont Gas - Delivery	1					314,756
Piedmont Gas - Other						23,158
SrvCo Coal Combustion Products		22,646				2,484
SrvCo Construct & Proj Mgmt	14	76,473	18,050			2,899
SrvCo Customer Service	31	169,681	5,667			3,900
SrvCo Enterprise Business Svs	691,351	362,341	26,402			9,867
SrvCo EnviroHealthSafety	42	130,958	51,784			15,650
SrvCo Fossil Hydro Total		354,075				6,478
SrvCo Gas		602				101,015
SrvCo Gen Support	70	1,557				564,634
SrvCo Nuclear						1,549,648
SrvCo Other	774	73,787	12,691			2,629,742
SrvCo Power Delivery	7,170	1,319,392	1,141,069			202,177
Aug 2018						1,723,436
100 Org Effectiveness		56,841				4,620
110 Central Progs Svcs	0	418,144				36,472
110 Regional Svcs		835,447	364			38,099
Corporate Governance DiscOps		881				452
DE Renewables & Transmission		8,336				585,302
DEC Central Programs Services		61,642				1,268,080
DEC Coal Combustion Products		140,756				60,704
DEC Customer	0	8,026				173,902
DEC Customer Experience	461	2,089				592,047
DEC Environmental		110				137,630
DEC Fleet Maint Svcs	0	110	150			137,630
DEC Fossil Hydro		24,933				973,441
						134,459
						11
						8,346
						76,112
						137,754
						5,751
						146,507
						243,705
						83,272
						1,828
						74,418
						99,352
						9,133

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DEC Gen Ops Support						2,475			1,139	3,615
DEC Nuclear	5								4,457	4,462
DEC Org Effectiveness						1			37,472	37,474
DEC Other	0					(1)			134,746	134,746
DEC Other Misc	330					5,447	10	1,843	45,043	52,673
DEC Power Delivery						27,680	12,009		201,526	242,481
DEC President & Staff	1,265								32,993	32,993
DEC Regional Svcs									2,021	2,021
DEC Wholesale Pwr & Rnwable Gen	2					731		596	26,389	27,718
DEF Central Progs Svcs						161			1,449	1,609
DEF Fleet Maint Svcs						955			2,064	3,019
DEF Fossil Hydro						0			561	561
DEF Gen Ops Support						111			115	227
DEF Org Effectiveness									2,149	2,149
DEF Other	22					48			17,382	17,452
DEF Power Delivery	140					10,870	56		11,871	22,937
DEF President & Staff									1,224	1,224
DEF Regional Svcs									4	4
DEF Retail	0					1,815			9,090	10,905
DEI Central Progs Svcs						9,259			7,814	17,072
DEI Coal Combustion Products						485,936			13,682	499,618
DEI Customer									15,846	15,846
DEI Fossil Hydro						9,026			68,412	77,438
DEI Other									17,550	17,550
DEI Power Delivery	0					10,655			3,226	13,881
DEK Customer	20					47,346			289,353	336,719
DEK Fossil						209,265	(17,838)		4,234,863	4,426,290
DEK Gas						232			751	984
DEK Power Delivery	184,826					3,066,159	(1,595,423)		1,180,809	2,836,371
DEP Central Progs Svcs						17,462			4,888	22,350
DEP Coal Combustion Products						73				73
DEP Environmental	0					97			4	101
DEP Fleet Maint Svcs						951			1,560	1,560
DEP Fossil Hydro						395	3,247		2,319	3,270
DEP Gen Ops Support									6,110	9,753
DEP Nuclear						1			34	35
DEP Org Effectiveness						0			23,284	23,284
DEP Other						196			69,658	69,853
DEP Power Delivery	5					4,810	(4,894)		44,589	44,510
DEP Regional Svcs									14	14
DEP Retail									25,547	27,303
Duke Energy Ohio - Com Power	0					1,756			1,202	2,226
Duke Energy Ohio - RU						1,024			375,297	1,217,357
Marketing & Customer Engagemen	1,081					838,100	2,880		26,453	27,178
Piedmont Gas - Customer						725			2,888	2,888
Piedmont Gas - Delivery	1								5,085	5,086
Piedmont Gas - Other									10,385	10,385
SrvCo Coal Combustion Products									17,702	43,420
SrvCo Construct & Proj Mgmt	18					25,718			7,815	107,818
SrvCo Customer Service	31					176,679	6,854		677,464	861,028
SrvCo Enterprise Business Svs						426,020	28,134	0	1,767,640	3,035,947
SrvCo EnviroHealthSafety	814,152					143,682	57,602		236,112	437,443
SrvCo Fossil Hydro Total	46					359,564	602		1,976,523	2,336,087
SrvCo Gas									4,153	4,755

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SrvCo Gen Support	80	1,557		42,238	43,874
SrvCo Nuclear				522	522
SrvCo Other	888	87,474	14,207	671,780	774,349
SrvCo Power Delivery	7,249	1,556,841	1,339,534	1,451,876	4,355,500
Sep 2018					
100 Org Effectiveness		60,631		4,251	64,882
110 Central Progs Svcs	0	444,698		196,624	641,323
110 Regional Svcs		920,706	364	153,917	1,074,987
Corporate Governance DiscOps		1,117		148,141	190,445
DE Renewables & Transmission		8,336		11	8,346
DEC Central Programs Services		66,696		84,146	150,842
DEC Coal Combustion Products		150,320		6,352	156,672
DEC Customer	0	10,212		269,818	280,030
DEC Customer Experience	462	2,269		92,319	95,050
DEC Environmental	0	110	484	1,794	2,389
DEC Fleet Maint Svcs		24,933		81,064	105,998
DEC Fossil Hydro				10,350	10,350
DEC Gen Ops Support		2,692		1,319	4,011
DEC Nuclear	5			4,361	4,366
DEC Org Effectiveness		1		42,124	42,126
DEC Other	0	(1)		153,663	153,663
DEC Other Misc				50,146	57,838
DEC Power Delivery	330	5,226	27	224,480	274,271
DEC President & Staff	47	36,004	13,740	37,350	37,350
DEC Regional Svcs				2,257	2,257
DEC Wholesale Pwr & Rnwable Gen	2	573		30,752	32,008
DEF Central Progs Svcs		185		1,675	1,860
DEF Fleet Maint Svcs		1,013		2,176	3,190
DEF Fossil Hydro		0		58	58
DEF Gen Ops Support		111		115	227
DEF Org Effectiveness				2,375	2,375
DEF Other	25	48		18,759	18,831
DEF Power Delivery	140	10,980	56	13,425	24,601
DEF President & Staff				183	183
DEF Regional Svcs				4	4
DEF Retail	0	2,547		10,819	13,366
DEI Central Progs Svcs		9,962		8,015	17,976
DEI Coal Combustion Products		538,145		19,264	557,409
DEI Customer				18,313	18,313
DEI Fossil Hydro		9,026		68,412	77,438
DEI Other				19,640	19,640
DEI Power Delivery	0	12,262		4,834	17,095
DEK Customer	20	48,284		316,217	364,521
DEK Fossil		221,173	(17,838)	4,667,472	4,870,807
DEK Gas		460		813	1,272
DEK Power Delivery	187,692	3,404,392	(1,802,461)	1,302,782	3,092,405
DEP Central Progs Svcs		20,846		5,339	26,185
DEP Coal Combustion Products		73			73
DEP Environmental	0	97		4	101
DEP Fleet Maint Svcs				1,739	1,739
DEP Fossil Hydro		951		2,587	3,538
DEP Gen Ops Support		415	4,296	6,838	11,549
DEP Nuclear		1		34	35
DEP Org Effectiveness		0		26,018	26,018

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DEP Other		196			79,562	79,758
DEP Power Delivery	5	5,095	(4,593)		50,170	50,677
DEP Regional Svcs					14	14
DEP Retail	0	1,756			28,278	30,034
Duke Energy Ohio - Com Power		1,024			1,202	2,226
Duke Energy Ohio - RU		893,263	3,367		430,881	1,328,741
Marketing & Customer Engagemen	1,230	725			28,972	29,697
Piedmont Gas - Customer					2,332	2,332
Piedmont Gas - Delivery	1				5,875	5,876
Piedmont Gas - Other					10,385	10,385
Srvco Coal Combustion Products		29,057			19,693	48,751
SrvCo Construct & Proj Mgmt	20	81,791	24,347		9,001	115,159
SrvCo Customer Service	31	287,991	7,887		736,828	1,032,737
SrvCo Enterprise Business Svs	922,061	472,065	29,928	0	1,967,168	3,391,223
SrvCo EnviroHealthSafety	52	159,200	64,013		271,846	495,111
SrvCo Fossil Hydro Total		363,789			2,229,380	2,593,169
SrvCo Gas		2,111			4,492	6,603
SrvCo Gen Support	11,994	1,557			49,835	63,586
SrvCo Nuclear					573	573
SrvCo Other	1,007	100,806	15,892		751,158	868,863
SrvCo Power Delivery	7,249	1,751,285	1,502,467		1,636,652	4,897,653
Q4 2018						
Oct 2018						
100 Org Effectiveness		63,483			4,602	68,085
110 Central Progs Svcs	0	462,302			218,625	680,927
110 Regional Svcs		1,004,260	364		166,737	1,171,361
Corporate Governance DiscOps	46,433	1,386			176,194	224,013
DE Renewables & Transmission		8,336			11	8,346
DEC Central Programs Services		72,102			92,434	164,536
DEC Coal Combustion Products		158,389			7,181	165,571
DEC Customer	0	12,747			305,711	318,458
DEC Customer Experience	463	2,555			104,249	107,266
DEC Environmental	0	110	1,009		2,070	3,190
DEC Fleet Maint Svcs		24,933			87,772	112,706
DEC Fossil Hydro					11,646	11,646
DEC Gen Ops Support		2,861			1,508	4,368
DEC Nuclear	5				4,376	4,381
DEC Org Effectiveness					46,978	46,980
DEC Other		1			172,737	172,737
DEC Other Misc	0	(1)				
DEC Power Delivery	330	1,596	40	2,394	55,620	59,980
DEC President & Staff	47	46,296	15,662		248,911	310,915
DEC Regional Svcs					42,709	42,709
DEC Wholesale Pwr & Rnwable Gen	2	666			2,455	2,455
DEF Central Progs Svcs		201		795	35,275	36,738
DEF Fleet Maint Svcs		1,138			1,905	2,106
DEF Fossil Hydro		0			2,436	3,574
DEF Gen Ops Support		111			58	58
DEF Org Effectiveness					115	227
DEF Other					2,624	2,624
DEF Power Delivery	27	48			19,351	19,426
DEF President & Staff	141	11,314	56		15,470	26,980
DEF Regional Svcs					183	183
DEF Retail	0	3,253			4	4
					12,969	16,222

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DEI Central Progs Svcs				11,415			8,516	19,931
DEI Coal Combustion Products				595,547			24,550	620,097
DEI Customer							20,722	20,722
DEI Fossil Hydro				9,026			68,412	77,438
DEI Other							21,669	21,669
DEI Power Delivery	0			13,875			5,648	19,523
DEK Customer	20			51,048			343,792	394,860
DEK Fossil				249,839	(17,838)		5,062,183	5,294,185
DEK Gas				460			813	1,272
DEK Power Delivery	190,566			3,756,987	(2,015,420)		1,432,426	3,364,558
DEP Central Progs Svcs				23,012			5,824	28,836
DEP Coal Combustion Products				73				73
DEP Environmental	0			97			4	101
DEP Fleet Maint Svcs							1,903	1,903
DEP Fossil Hydro				951			2,818	3,769
DEP Gen Ops Support				435	5,312		7,540	13,287
DEP Nuclear	0			1			38	39
DEP Org Effectiveness				0			28,787	28,787
DEP Other				213			89,702	89,914
DEP Power Delivery	5			5,981	(4,242)		57,663	59,408
DEP Regional Svcs							14	14
DEP Retail	0			1,756			31,347	33,103
Duke Energy Ohio - Com Power				1,024			1,215	2,238
Duke Energy Ohio - RU				936,517	4,737		479,598	1,422,082
Marketing & Customer Engagemen	1,230			725	828		32,632	34,185
Piedmont Gas - Customer							1,898	1,898
Piedmont Gas - Delivery	2						6,024	6,026
Piedmont Gas - Other							10,385	10,385
Srvco Coal Combustion Products				32,229			21,640	53,869
Srvco Construct & Proj Mgmt	22			84,499	27,670		10,332	122,523
Srvco Customer Service	31			322,990	8,800		815,432	1,147,253
SrvCo Enterprise Business Svs	1,034,931			527,539	31,316	0	2,155,396	3,749,182
SrvCo EnviroHealthSafety	55			169,062	69,593		302,136	540,847
SrvCo Fossil Hydro Total				367,427			2,462,289	2,829,716
SrvCo Gas				2,111			4,956	7,067
SrvCo Gen Support	12,004			1,557			55,132	68,693
SrvCo Nuclear							640	640
SrvCo Other	1,112			116,137	17,065		835,063	969,377
SrvCo Power Delivery	7,677			1,977,565	1,692,274		1,802,039	5,479,555
Nov 2018								
100 Org Effectiveness				66,933			4,866	71,798
110 Central Progs Svcs	0			481,040			237,656	718,696
110 Regional Svcs				1,081,499	364		179,679	1,261,542
Corporate Governance DiscOps				1,644			200,037	252,814
DE Renewables & Transmission				8,351			125	8,476
DEC Central Programs Services				76,985			99,594	176,578
DEC Coal Combustion Products				165,700			7,817	173,517
DEC Customer	0			15,038			334,874	349,912
DEC Customer Experience	463			2,737			114,279	117,480
DEC Environmental	0			115	1,419		2,214	3,747
DEC Fleet Maint Svcs				24,933			103,734	128,668
DEC Fossil Hydro							12,776	12,776
DEC Gen Ops Support							1,613	4,718
DEC Nuclear	5			3,105			4,403	4,409

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DEC Org Effectiveness	1				51,493	51,494
DEC Other	0	(1)			190,004	190,004
DEC Other Misc	330	1,737	56	2,563	54,935	59,622
DEC Power Delivery	117	57,200	17,469		270,197	344,983
DEC President & Staff					47,292	47,292
DEC Regional Svcs					2,860	2,860
DEC Wholesale Pwr & Rnwable Gen	3	737		908	39,482	41,130
DEF Central Progs Svcs		250			2,165	2,414
DEF Fleet Maint Svcs		1,254			2,666	3,920
DEF Fossil Hydro		0			58	58
DEF Gen Ops Support		111			115	227
DEF Org Effectiveness					2,806	2,806
DEF Other	30	48			19,874	19,953
DEF Power Delivery	141	11,572	56		17,055	28,824
DEF President & Staff					183	183
DEF Regional Svcs					103	103
DEF Retail					15,522	19,247
DEI Central Progs Svcs	0	3,724			8,961	21,633
DEI Coal Combustion Products		12,672			27,618	671,872
DEI Customer		644,254			22,544	22,544
DEI Fossil Hydro		9,026			68,412	77,438
DEI Other					23,632	23,632
DEI Power Delivery	0	15,021			7,398	22,418
DEK Customer	20	53,840			371,361	425,221
DEK Fossil		282,675	(17,838)		5,471,110	5,735,947
DEK Gas		460			813	1,272
DEK Power Delivery	193,270	4,078,180	(2,227,324)		1,639,303	3,683,429
DEP Central Progs Svcs		24,787			6,272	31,059
DEP Coal Combustion Products		73				73
DEP Environmental	0	97			4	101
DEP Fleet Maint Svcs					2,066	2,066
DEP Fossil Hydro		951			3,143	4,094
DEP Gen Ops Support		450	6,219		8,145	14,814
DEP Nuclear	0	1			38	39
DEP Org Effectiveness		0			31,207	31,207
DEP Other		213			100,843	101,056
DEP Power Delivery	5	6,718	(3,836)		66,936	69,823
DEP Regional Svcs					183	183
DEP Retail					33,752	35,508
Duke Energy Ohio - Com Power		1,756			1,591	2,615
Duke Energy Ohio - RU		1,024			581,117	1,581,977
Marketing & Customer Engagemen	1,473	994,650	4,737		35,472	37,423
Piedmont Gas - Customer		806	1,146		1,949	1,949
Piedmont Gas - Delivery	3				6,120	6,123
Piedmont Gas - Other	0				10,395	10,395
SrvCo Coal Combustion Products		34,666			23,253	57,919
SrvCo Construct & Proj Mgmt	22	84,499	30,856		11,584	126,961
SrvCo Customer Service	53	334,205	9,796		899,347	1,243,401
SrvCo Enterprise Business Svcs	1,138,479	578,882	32,256	0	2,328,962	4,078,579
SrvCo EnviroHealthSafety	59	178,222	74,474		327,975	580,731
SrvCo Fossil Hydro Total		369,442			2,692,313	3,061,755
SrvCo Gas		2,111			4,607	6,718
SrvCo Gen Support		1,557			59,683	73,253
SrvCo Nuclear	12,013					701

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SrvCo Other	1,211	129,902	18,506	910,660	1,060,279
SrvCo Power Delivery	7,780	2,196,994	1,856,508	1,977,461	6,038,742
Dec 2018					
100 Org Effectiveness		68,610		5,139	73,749
110 Central Progs Svcs	0	492,137		249,935	742,072
110 Regional Svcs		1,157,541	364	189,013	1,346,917
Corporate Governance DiscOps		1,875		219,045	275,825
DE Renewables & Transmission		8,408		181	8,589
DEC Central Programs Services		81,230		105,844	187,075
DEC Coal Combustion Products		171,075		8,379	179,454
DEC Customer	18	17,649		370,898	388,565
DEC Customer Experience	502	2,823		123,642	126,968
DEC Environmental	0	115	1,796	2,290	4,201
DEC Fleet Maint Svcs		24,933		105,302	130,235
DEC Fossil Hydro		3,261		13,678	13,678
DEC Gen Ops Support	5			1,735	4,996
DEC Nuclear				4,660	4,665
DEC Org Effectiveness				54,735	54,737
DEC Other	0	1		205,252	205,251
DEC Other Misc		(1)		59,119	58,656
DEC Power Delivery	331	(276)	71	286,224	370,476
DEC President & Staff	(84)	65,438	18,899	51,131	51,131
DEC Regional Svcs				43,162	42,574
DEC Wholesale Pwr & Rnwable Gen	3	(252)		2,290	2,517
DEF Central Progs Svcs		228		2,961	4,325
DEF Fleet Maint Svcs		1,364		74	74
DEF Fossil Hydro		0		115	227
DEF Gen Ops Support		111		2,937	2,937
DEF Org Effectiveness				20,352	20,458
DEF Other	33	74		19,174	31,249
DEF Power Delivery	141	11,878	56	183	183
DEF President & Staff				103	103
DEF Regional Svcs				16,307	20,400
DEF Retail	0	4,093		10,336	23,998
DEI Central Progs Svcs		13,662		29,809	711,652
DEI Coal Combustion Products		681,843		24,276	24,276
DEI Customer				70,011	79,037
DEI Fossil Hydro		9,026		25,753	25,753
DEI Other				7,100	23,607
DEI Power Delivery	0	16,507		387,744	448,856
DEK Customer	1,895	59,216		5,878,374	6,162,987
DEK Fossil		302,450	(17,838)	813	1,272
DEK Gas		460		3,122	(7,334)
DEK Other		(10,456)		1,746,236	3,944,184
DEK Power Delivery		4,405,055	(2,456,708)	6,646	33,067
DEP Central Progs Svcs	249,600	26,422		73	73
DEP Coal Combustion Products		73		(10)	87
DEP Environmental	0	97		2,399	2,399
DEP Fleet Maint Svcs				3,422	4,372
DEP Fossil Hydro		951		8,723	15,933
DEP Gen Ops Support		461	6,749	38	39
DEP Nuclear	0	1		33,031	33,031
DEP Org Effectiveness		0		112,190	112,402
DEP Other		213			

Actual - 12 months ending December 2018

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DEP Power Delivery	5	6,913	(3,325)	72,497	76,091
DEP Regional Svcs				183	183
DEP Retail	18	1,756		35,547	37,321
Duke Energy Ohio - Com Power		1,024		1,591	2,615
Duke Energy Ohio - RU		1,054,588	5,422	604,250	1,702,864
Marketing & Customer Engagemen		911	1,420	37,011	39,342
Piedmont Gas - Customer				1,982	1,982
Piedmont Gas - Delivery	4	0		6,671	6,675
Piedmont Gas - Other	1			10,420	10,421
Srvco Coal Combustion Products		37,483		24,675	62,159
SrvCo Construct & Proj Mgmt	24	84,499	33,722	12,656	130,902
Srvco Customer Service	109	412,228	10,828	956,278	1,379,443
SrvCo Enterprise Business Svs		622,708	33,697	2,465,056	4,346,887
SrvCo EnviroHealthSafety	61	186,351	79,035	347,627	613,074
SrvCo Fossil Hydro Total		377,317		2,891,443	3,268,760
SrvCo Gas		2,123		6,331	8,454
SrvCo Gen Support	18,092	1,557		64,582	84,231
SrvCo Nuclear				745	745
SrvCo Other	1,303	142,081	19,547	976,265	1,139,197
SrvCo Power Delivery	21,609	2,402,075	1,992,906	2,104,090	6,520,680
Grand Total	1,612,609	12,951,914	(273,360)	21,136,742	35,426,977
			(928)		

Actual - 12 months ending December 2017

See second query for department detail

Business Unit Hierarchy
 Account CB
 Responsibility Center Level 02 Name
 Resource Type CB
 DUKE_ENERGY_KY_ELEC - Duke Energy Kentucky Electric
 (Multiple Items)
 (Multiple Items)

YTD Actual Amount	CAPITAL - Capital	INDIRECT - Indirect	LIABILITY - Liabilities	INC_STMT - Income Statement	Grand Total
Row Labels	ASSET - Assets	INCOME CO - Income, Continuing Operations	O&M_OTHER_EXPENSES - O&M and Other Expenses		
2017					
Q1 2017					
Jan 2017	70,778	717,905	(258,445)	65	1,625,622
Feb 2017	156,873	1,525,935	(291,745)	65	3,264,204
Mar 2017	266,198	2,415,702	(329,545)	65	5,544,592
Q2 2017					
Apr 2017	348,579	3,139,117	(353,683)	65	7,190,762
May 2017	438,610	3,900,397	(372,358)	65	9,089,584
Jun 2017	519,436	4,638,271	(391,286)	65	10,703,515
Q3 2017					
Jul 2017	607,677	5,432,367	(428,505)	65	12,367,856
Aug 2017	703,779	6,387,140	(419,510)	65	13,968,093
Sep 2017	821,203	7,283,668	(417,037)	65	16,072,907
Q4 2017					
Oct 2017	923,464	8,229,882	(397,868)	394	17,762,637
Nov 2017	1,006,756	9,201,120	(408,675)	717	19,284,256
Dec 2017	1,076,193	10,011,025	(466,275)	993	20,582,574
Grand Total	1,076,193	10,011,025	(466,275)	993	31,204,510
					610,911

Business Unit Hierarchy
 Account CB
 Responsibility Center Level 02 Name
 Resource Type CB
 DUKE_ENERGY_KY_ELEC - Duke Energy Kentucky Electric
 (Multiple Items)
 (Multiple Items)

YTD Actual Amount	CAPITAL - Capital	INDIRECT - Indirect	LIABILITY - Liabilities	INC_STMT - Income Statement	Grand Total
Row Labels	ASSET - Assets	INCOME CO - Income, Continuing Operations	O&M_OTHER_EXPENSES - O&M and Other Expenses		
2017					
Q1 2017					
Jan 2017					1,445
100 Org Effectiveness					22,151
110 Central Progs Svcs	19,127				66,326
110 Regional Svcs	53,514				25,720
Corporate Governance DiscOps					6
DE Renewables & Transmission					5,905
DEC Central Programs Services	3,741	1,157			163
DEC Coal Combustion Products					10,120
					13,144

Actual - 12 months ending December 2017

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DEC Customer	8	23,418	23,427
DEC Customer Experience	156	2,657	2,813
DEC Environmental	110	309	419
DEC Fleet Maint Svcs		1,135	1,135
DEC Fossil Hydro		1,160	1,160
DEC Gen Ops Support		965	4,612
DEC Nuclear	3,647	14	15
DEC Org Effectiveness	0	4,375	4,375
DEC Other		19,414	19,612
DEC Other Misc	198	7,108	10,030
DEC Power Delivery	2,922	22,920	25,030
DEC President & Staff	2,109	1,234	1,234
DEC Wholesale Pwr & Rnwable Gen		3,997	3,997
DEF Central Progs Svcs	101	312	413
DEF Org Effectiveness		596	596
DEF Other	(0)	1,841	1,841
DEF Power Delivery	456	840	1,296
DEF Retail		988	988
DEI Central Progs Svcs	1,216	348	1,564
DEI Coal Combustion Products	56,045	978	57,023
DEI Customer		2,230	2,230
DEI Fossil Hydro		323	323
DEI Other		2,222	2,222
DEI Power Delivery	151	1,169	1,320
DEK Customer		25,093	25,093
DEK Fossil	(25,605)	365,416	324,477
DEK Gas	73	214	288
DEK Power Delivery	994	380,848	218,037
DEP Central Progs Svcs	1,288	668	1,956
DEP Environmental		10	10
DEP Fleet Maint Svcs		777	777
DEP Fossil Hydro	20	2	22
DEP Gen Ops Support	538	2,683	3,221
DEP Nuclear		265	265
DEP Org Effectiveness	2	3,598	3,598
DEP Other		6,406	6,407
DEP Power Delivery	1,021	4,459	5,480
DEP Retail		4,760	4,760
Duke Energy Ohio - RU	155	55,617	75,494
Marketing & Customer Engagemen	9	2,415	2,424
Piedmont Gas - Other		134	134
SrvCo Coal Combustion Products	4,575	2,860	7,435
SrvCo Construct & Proj Mgmt	2,802	1,809	7,119
SrvCo Customer Service	3,723	76,083	80,069
SrvCo Enterprise Business Svs	65,746	167,687	280,134
SrvCo EnviroHealthSafety	6	29,867	53,088
SrvCo Fossil Hydro Total		222,586	231,699
SrvCo Gas		177	320
SrvCo Gen Support		3,337	5,948
SrvCo Nuclear		315	315
SrvCo Other	136	78,100	86,863
SrvCo Power Delivery	0	179,164	404,779
Feb 2017			
100 Org Effectiveness		3,290	3,290

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Actual - 12 months ending December 2017

110 Central Progs Svcs		40,703			85,508
110 Regional Svcs		117,058			26,207
Corporate Governance DiscOps		12,506	1,157		143,265
DE Renewables & Transmission					16,791
DEC Central Programs Services					6
DEC Coal Combustion Products					20,397
DEC Customer		8,525			324
DEC Customer Experience		26,476			26,800
DEC Environmental		20			41,135
DEC Fleet Maint Svcs		323			5,837
DEC Fossil Hydro		240			575
DEC Gen Ops Support					2,054
DEC Nuclear		7,568			2,484
DEC Org Effectiveness	1				1,891
DEC Other					44
DEC Other Misc		383			8,014
DEC Power Delivery		7,857			38,635
DEC President & Staff		3,650			14,106
DEC Rates					21,963
DEC Wholesale Pwr & Rnwable Gen					48,769
DEF Central Progs Svcs		180			2,532
DEF Gen Ops Support		38			118
DEF Org Effectiveness					8,307
DEF Other					758
DEF Retail					38
DEI Central Progs Svcs		924			1,216
DEI Coal Combustion Products		2,342			3,943
DEI Customer		114,152			1,424
DEI Fossil Hydro					1,890
DEI Other					669
DEI Power Delivery		279			1,852
DEK Customer					5,797
DEK Fossil		(10,578)	(31,044)		323
DEK Gas		196			4,500
DEK Other		39,900			274
DEK Power Delivery		750,770	(602,297)		55,872
DEP Central Progs Svcs		1,578			768,282
DEP Environmental					603
DEP Fleet Maint Svcs					799
DEP Fossil Hydro		20			410,359
DEP Gen Ops Support		979			563,150
DEP Nuclear					3,279
DEP Org Effectiveness					49
DEP Other					804
DEP Power Delivery					22
DEP Regional Svcs					5,234
DEP Retail					265
Duke Energy Ohio - RU					7,197
Marketing & Customer Engagemen					13,667
Piedmont Gas - Customer					8,978
Piedmont Gas - Other					13
SrvCo Coal Combustion Products					9,967
SrvCo Construct & Proj Mgmt					111,895
					4,942
					279
					557
					5,758
					8,872
					18,984

Actual - 12 months ending December 2017

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Srvco Customer Service				7,332	497		0	163,084	170,913
SrvCo Enterprise Business Svs		143,614		81,137	35,018		65	348,037	607,871
SrvCo EnviroHealthSafety		11		30,064	17,649			62,939	110,663
SrvCo Fossil Hydro Total				16,093				439,513	455,606
SrvCo Gas				238	127			302	668
SrvCo Gen Support				5,049				7,218	12,267
SrvCo Nuclear								499	499
SrvCo Other		276		9,387	8,660			157,503	175,827
SrvCo Power Delivery		0		186,298	274,014		0	368,406	828,719
Mar 2017									
100 Org Effectiveness								5,425	5,425
110 Central Progs Svcs				67,900				67,855	135,755
110 Regional Svcs				186,872				38,079	224,952
Corporate Governance DiscOps				12,860	1,157			26,236	54,644
DE Renewables & Transmission							6		
DEC Central Programs Services				12,885				17,801	30,686
DEC Coal Combustion Products				40,594				544	41,138
DEC Customer		0		28				77,313	77,341
DEC Customer Experience				547				8,699	9,246
DEC Environmental				383				835	1,219
DEC Fleet Maint Svcs								6,588	6,588
DEC Fossil Hydro								3,933	3,933
DEC Gen Ops Support				11,708				2,885	14,593
DEC Nuclear		2						1,065	1,067
DEC Org Effectiveness								12,834	12,834
DEC Other				556				59,094	59,650
DEC Other Misc				11,617				21,608	33,225
DEC Power Delivery				6,050				78,240	84,290
DEC President & Staff								3,924	3,924
DEC Rates								166	166
DEC Wholesale Pwr & Rnwable Gen				240				13,400	13,400
DEF Central Progs Svcs								791	1,031
DEF Fleet Maint Svcs								67	67
DEF Gen Ops Support								95	95
DEF Org Effectiveness		5						1,912	1,912
DEF Other				1,532	71			6,202	6,207
DEF Power Delivery								3,001	4,603
DEF Retail								2,649	2,649
DEI Central Progs Svcs				3,761				1,074	4,835
DEI Coal Combustion Products				170,542				2,925	173,467
DEI Customer								7,918	7,918
DEI Fossil Hydro								323	323
DEI Other								6,914	6,914
DEI Power Delivery		0		693				10,383	11,076
DEK Customer								103,140	103,140
DEK Fossil				11,655	(46,613)			1,377,994	1,343,036
DEK Gas				704				1,081	1,785
DEK Other				39,900				39,900	39,900
DEK Power Delivery		8,916		1,102,497	(844,776)		0	739,621	1,006,258
DEP Central Progs Svcs				4,775				4,017	8,792
DEP Environmental								103	103
DEP Fleet Maint Svcs								1,208	1,208
DEP Fossil Hydro								2	2
DEP Gen Ops Support				20				7,882	9,300
				1,417					

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DEP Nuclear						265	265
DEP Org Effectiveness						11,282	11,282
DEP Other						21,482	21,487
DEP Power Delivery			758			14,629	18,703
DEP Regional Svcs						13	13
DEP Retail						15,712	15,733
Duke Energy Ohio - RU						219,208	309,576
Marketing & Customer Engagemen			3,935			7,380	7,845
Piedmont Gas - Customer						851	851
Piedmont Gas - Delivery						357	357
Piedmont Gas - Other						1,345	1,345
SrvCo Coal Combustion Products						8,791	23,406
SrvCo Construct & Proj Mgmt			6,100			14,907	32,058
SrvCo Customer Service			6,065		0	271,065	288,415
SrvCo Enterprise Business Svs			54,434		65	547,116	973,522
SrvCo EnviroHealthSafety			25,650			97,497	171,703
SrvCo Fossil Hydro Total						656,615	685,985
SrvCo Gas			(213)			412	564
SrvCo Gen Support			365			11,372	20,913
SrvCo Nuclear			8,007			759	759
SrvCo Other			22,698			243,084	279,345
SrvCo Power Delivery			358,704		0	674,715	1,484,167
02 2017							
Apr 2017							
100 Org Effectiveness						7,298	7,298
110 Central Progs Svcs						93,097	180,791
110 Regional Svcs						50,833	310,042
Corporate Governance DiscOps						51,802	84,853
DE Renewables & Transmission			1,157			6	6
DEC Central Programs Services						24,999	43,857
DEC Coal Combustion Products						774	55,523
DEC Customer						104,203	104,250
DEC Customer Experience						11,942	12,721
DEC Environmental						1,184	1,802
DEC Fleet Maint Svcs						7,231	7,231
DEC Fossil Hydro						4,995	4,995
DEC Gen Ops Support						3,570	18,545
DEC Nuclear						1,349	1,352
DEC Org Effectiveness						15,753	15,753
DEC Other						79,339	80,007
DEC Other Misc						28,092	40,836
DEC Power Delivery						102,364	110,898
DEC President & Staff						5,134	5,134
DEC Rates						166	166
DEC Wholesale Pwr & Rnwable Gen						16,684	16,684
DEF Central Progs Svcs						863	1,085
DEF Fleet Maint Svcs						67	67
DEF Gen Ops Support						184	184
DEF Org Effectiveness						2,525	2,525
DEF Other						7,964	7,968
DEF Power Delivery			193			6,348	8,548
DEF Retail						3,338	3,338
DEI Central Progs Svcs						1,469	6,609
DEI Coal Combustion Products						3,897	243,595

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DEI Customer					9,770	9,770
DEI Fossil Hydro					329	329
DEI Other					9,011	9,011
DEI Power Delivery					11,701	13,301
DEK Customer	0	1,599			138,129	138,129
DEK Fossil		35,252	(61,852)		1,742,638	1,716,037
DEK Gas		826			1,303	2,128
DEK Other		39,900				39,900
DEK Power Delivery		1,391,368	(1,069,880)	0	973,535	1,306,354
DEP Central Progs Svcs		5,919			4,553	10,472
DEP Environmental		42			142	183
DEP Fleet Maint Svcs					1,340	1,340
DEP Fossil Hydro		20			90	110
DEP Gen Ops Support		2,038			10,566	12,603
DEP Nuclear					265	265
DEP Org Effectiveness		5			14,575	14,575
DEP Other		4,371	3,050		28,558	28,563
DEP Power Delivery	0				20,283	27,703
DEP Regional Svcs					13	13
DEP Retail		46			20,175	20,221
Duke Energy Ohio - RU		106,149	11,555		275,295	393,154
Marketing & Customer Engagemen		673			9,253	9,926
Piedmont Gas - Customer					1,422	1,422
Piedmont Gas - Delivery					752	752
Piedmont Gas - Other					1,769	1,769
Srvco Coal Combustion Products		19,392			11,483	30,875
SrvCo Construct & Proj Mgmt		13,145	7,738		20,812	41,694
Srvco Customer Service	0	14,341	6,884	0	352,662	373,888
SrvCo Enterprise Business Svs		176,626	69,858	65	711,104	1,274,029
SrvCo EnviroHealthSafety		61,748	32,691		127,035	221,498
SrvCo Fossil Hydro Total	24	39,995	(213)		859,086	899,081
SrvCo Gas		528			520	835
SrvCo Gen Support	1,533	11,134			13,928	26,596
SrvCo Nuclear					999	999
SrvCo Other	544	31,604	17,171		321,311	370,629
SrvCo Power Delivery	0	462,987	627,968	0	859,069	1,950,023
May 2017						
100 Org Effectiveness		671			9,497	10,168
110 Central Progs Svcs		111,967			117,227	229,194
110 Regional Svcs		320,044			74,131	394,175
CE Commercial Power					525	525
Corporate Governance DiscOps		13,413	1,157		72,674	110,343
DE Renewables & Transmission					6	6
DEC Central Programs Services		24,013			32,568	56,582
DEC Coal Combustion Products		68,459			1,015	69,474
DEC Customer	0	120			132,246	132,366
DEC Customer Experience		1,022			14,884	15,906
DEC Environmental		807			1,412	2,220
DEC Fleet Maint Svcs					8,145	8,145
DEC Fossil Hydro					6,366	6,366
DEC Gen Ops Support		18,580			4,381	22,961
DEC Nuclear	3				1,503	1,506
DEC Org Effectiveness					18,805	18,805
DEC Other	10	704			98,861	99,575

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DEC Other Misc				14,601				33,696	48,297
DEC Power Delivery				9,405				125,906	135,311
DEC President & Staff								6,492	6,492
DEC Rates								166	166
DEC Wholesale Pwr & Rnwable Gen								19,499	19,499
DEF Central Progs Svcs				240				1,000	1,240
DEF Fleet Maint Svcs								199	199
DEF Gen Ops Support								2	272
DEF Org Effectiveness	14			257				3,130	3,130
DEF Other	6							10,056	10,062
DEF Power Delivery				2,421		345		7,601	10,367
DEF Retail								4,113	4,113
DEI Central Progs Svcs				6,471				1,849	8,320
DEI Coal Combustion Products				307,073				4,948	312,021
DEI Customer								11,613	11,613
DEI Fossil Hydro								329	329
DEI Other								11,344	11,344
DEI Power Delivery	0			1,723				13,113	14,836
DEK Customer				1,048				174,437	175,485
DEK Fossil				67,012		(76,966)		2,264,029	2,254,076
DEK Gas				959				1,349	2,308
DEK Other				39,900					39,900
DEK Power Delivery				1,705,583		(1,289,324)	0	1,198,136	1,629,689
DEP Central Progs Svcs	15,295			7,112				10,957	18,070
DEP Environmental				42				167	209
DEP Fleet Maint Svcs				20				1,533	1,533
DEP Fossil Hydro				2,629				302	322
DEP Gen Ops Support								13,269	15,897
DEP Nuclear								265	265
DEP Org Effectiveness								16,686	16,686
DEP Other				9				35,424	35,433
DEP Power Delivery	0			5,542		5,309		26,180	37,030
DEP Regional Svcs								21	21
DEP Retail				98				24,530	24,628
Duke Energy Ohio - RU				124,056		18,515		333,162	475,887
Marketing & Customer Engagemen	155			884				11,333	12,217
Piedmont Gas - Customer								2,000	2,000
Piedmont Gas - Delivery								1,186	1,186
Piedmont Gas - Other								2,685	2,685
Srvco Coal Combustion Products				23,713				14,182	37,896
Srvco Construct & Proj Mgmt				15,864		9,873		27,268	53,005
Srvco Customer Service	0			17,863		8,076	0	443,046	468,985
Srvco Enterprise Business Svs	397,740			223,347		84,483	65	886,040	1,591,674
Srvco EnviroHealthSafety				77,553		40,589		159,332	277,504
Srvco Fossil Hydro Total	30			49,100				1,110,436	1,159,535
Srvco Gas				672		(213)		641	1,100
SrvCo Gen Support	1,533			13,885				17,037	32,455
SrvCo Nuclear								1,213	1,213
SrvCo Other	722			41,152		19,592		399,052	460,518
SrvCo Power Delivery	0			580,366		806,207	0	1,064,386	2,450,959
Jun 2017									
100 Org Effectiveness				2,296				12,245	14,541
110 Central Progs Svcs				131,692				140,341	272,033
110 Regional Svcs				381,731				88,343	470,074

Actual - 12 months ending December 2017

See second query for department detail

CE Commercial Power						525	525
Corporate Governance DiscOps						101,335	143,540
DE Renewables & Transmission				1,157		6	6
DEC Central Programs Services		28,357				40,613	68,970
DEC Coal Combustion Products		82,122				1,266	83,388
DEC Customer	0	190				165,548	165,738
DEC Customer Experience		1,175				17,995	19,169
DEC Environmental		1,001				1,731	2,731
DEC Fleet Maint Svcs						8,964	8,964
DEC Fossil Hydro						7,804	7,804
DEC Gen Ops Support		22,776				5,084	27,859
DEC Nuclear	4	205				5,965	6,173
DEC Org Effectiveness						21,897	21,897
DEC Other	134	769				118,277	119,179
DEC Other Misc		15,307				39,215	54,523
DEC Power Delivery		10,325				151,369	161,694
DEC President & Staff						7,853	7,853
DEC Rates						166	166
DEC Wholesale Pwr & Rnwable Gen						22,483	22,483
DEF Central Progs Svcs		342				1,318	1,660
DEF Fleet Maint Svcs						260	260
DEF Gen Ops Support	14	377				2	393
DEF Org Effectiveness						3,607	3,607
DEF Other	8	2,851		502		11,817	11,825
DEF Power Delivery						8,752	12,105
DEF Retail						4,978	4,978
DEI Central Progs Svcs		7,263				2,075	9,338
DEI Coal Combustion Products		366,319				5,973	372,292
DEI Customer						13,284	13,284
DEI Fossil Hydro						814	814
DEI Other						13,107	13,107
DEI Power Delivery	0	1,073				14,961	16,035
DEK Customer		3,067				211,914	214,981
DEK Fossil		73,280		(91,474)		2,643,449	2,625,255
DEK Gas		1,077				1,892	2,968
DEK Other		39,900				39,900	39,900
DEP Power Delivery	17,291	2,032,059	(1,502,317)	0		1,379,542	1,926,574
DEP Central Progs Svcs		9,381				12,649	22,030
DEP Environmental		42				167	209
DEP Fleet Maint Svcs						1,725	1,725
DEP Fossil Hydro		20				527	547
DEP Gen Ops Support		3,119				15,435	18,554
DEP Nuclear						265	265
DEP Org Effectiveness						19,445	19,445
DEP Other						41,794	41,806
DEP Power Delivery	0	12		6,992		32,671	46,171
DEP Regional Svcs		6,508				21	21
DEP Retail						28,647	28,746
Duke Energy Ohio - RU	155	149,480	24,705			382,231	556,571
Marketing & Customer Engagemen		1,137				13,330	14,467
Piedmont Gas - Customer						2,578	2,578
Piedmont Gas - Delivery						1,600	1,600
Piedmont Gas - Other						5,130	5,130
Svco Coal Combustion Products		28,363				16,810	45,173

Actual - 12 months ending December 2017

See second query for department detail

SrvCo Construct & Proj Mgmt	18,325	11,978		32,197	62,500
SrvCo Customer Service	0	21,760	0	514,648	550,855
SrvCo Enterprise Business Svcs	471,995	264,663	65	1,065,031	1,899,320
SrvCo EnviroHealthSafety	37	93,613	48,947	188,831	331,428
SrvCo Fossil Hydro Total	59,879			1,297,815	1,357,694
SrvCo Gas	3,153	(213)		790	3,730
SrvCo Gen Support	1,533	16,438		20,236	38,207
SrvCo Nuclear				1,436	1,436
SrvCo Other	866	51,088	22,010	475,184	549,149
SrvCo Power Delivery	0	691,988	974,415	1,255,555	2,921,959
Q3 2017					
Jul 2017					
100 Org Effectiveness	5,484			14,572	20,056
110 Central Progs Svcs	153,328			158,289	311,617
110 Regional Svcs	444,351	290		106,892	551,533
CE Commercial Power				525	525
Corporate Governance DiscOps	31,413	1,157		113,381	159,853
DE Renewables & Transmission	1,409			6	1,415
DEC Central Programs Services	31,910			50,274	82,184
DEC Coal Combustion Products	92,860			1,499	94,359
DEC Customer	425			193,879	194,304
DEC Customer Experience	1,250			21,046	22,296
DEC Environmental	1,152			1,950	3,102
DEC Fleet Maint Svcs				51,881	51,881
DEC Fossil Hydro				9,049	9,049
DEC Gen Ops Support	27,021			5,813	32,834
DEC Nuclear	325			5,977	6,306
DEC Org Effectiveness				135,333	24,666
DEC Other	134			43,122	136,244
DEC Other Misc	778			174,836	60,808
DEC Power Delivery	17,686			9,035	187,627
DEC President & Staff	12,163	628		166	166
DEC Rates				11	11
DEC Regional Svcs				24,857	24,857
DEC Wholesale Pwr & Rnwable Gen				1,620	2,061
DEF Central Progs Svcs	441			264	264
DEF Fleet Maint Svcs				2	394
DEF Gen Ops Support	14	378		3,911	3,911
DEF Org Effectiveness				13,498	13,508
DEF Other	10		2,832	9,861	15,801
DEF Power Delivery				5,775	5,775
DEF Retail				2,469	11,111
DEI Central Progs Svcs	8,642			6,938	427,911
DEI Coal Combustion Products	420,974			15,353	15,353
DEI Customer				817	817
DEI Fossil Hydro				14,322	14,322
DEI Other				17,251	18,523
DEI Power Delivery	88			248,748	255,086
DEK Customer	6,339			3,056,414	3,029,623
DEK Fossil	77,998	(104,789)		2,127	3,268
DEK Gas	1,141				
DEK Other	39,900				
DEK Power Delivery	18,445	(1,730,400)	0	1,573,613	2,267,172
DEP Central Progs Svcs	12,175			15,291	27,466

Actual - 12 months ending December 2017

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DEP Environmental					42	167	209
DEP Fleet Maint Svcs						4,596	4,596
DEP Fossil Hydro					20	679	700
DEP Gen Ops Support					3,676	17,317	20,992
DEP Nuclear						265	265
DEP Org Effectiveness					14	22,055	22,055
DEP Other						48,143	48,156
DEP Power Delivery					0	39,127	54,105
DEP Regional Svcs					107	21	21
DEP Retail					155	32,377	32,484
Duke Energy Ohio - RU					178,387	422,994	634,001
Marketing & Customer Engagemen					1,364	15,288	16,652
Piedmont Gas - Customer						3,510	3,510
Piedmont Gas - Delivery						2,442	2,442
Piedmont Gas - Other						6,218	6,218
Srvco Coal Combustion Products					32,213	19,416	51,630
Srvco Construct & Proj Mgmt					20,182	34,325	68,415
Srvco Customer Service					25,278	600,368	641,310
Srvco Enterprise Business Svs					0	1,222,761	2,195,583
Srvco EnviroHealthSafety					554,634	217,646	381,643
Srvco Fossil Hydro Total					43	1,483,568	1,548,270
SrvCo Gas					64,702	1,011	4,095
SrvCo Gen Support					3,297	23,917	43,549
SrvCo Nuclear					17,995	1,630	1,630
SrvCo Other					1,001	549,217	636,129
SrvCo Power Delivery					97	1,463,467	3,423,806
Aug 2017							
100 Org Effectiveness					8,839	17,367	26,206
110 Central Progs Svcs					175,969	180,356	356,325
110 Regional Svcs					517,522	124,047	641,859
CE Commercial Power						525	525
Corporate Governance DiscOps						123,533	173,851
DE Renewables & Transmission					14,047	6	11,317
DEC Central Programs Services					11,311	57,095	98,815
DEC Coal Combustion Products					41,720	1,764	108,248
DEC Customer					106,485	221,805	222,444
DEC Customer Experience					0	24,869	26,344
DEC Environmental					639	2,146	3,493
DEC Fleet Maint Svcs					1,474	19,998	57,303
DEC Fossil Hydro					1,347	10,503	10,503
DEC Gen Ops Support					37,305	6,567	38,150
DEC Nuclear					31,583	6,036	6,486
DEC Org Effectiveness					446	27,570	153,855
DEC Other					5	153,064	29,539
DEC Other Misc					(0)	200,116	216,206
DEC Power Delivery					63,675	10,162	10,162
DEC President & Staff					41	284	284
DEC Rates						32	32
DEC Regional Svcs						27,245	27,245
DEC Wholesale Pwr & Rnwable Gen						1,889	2,393
DEF Central Progs Svcs					504	278	278
DEF Fleet Maint Svcs						2	464
DEF Gen Ops Support					448		4,275
DEF Org Effectiveness					14		

Actual - 12 months ending December 2017

See second query for department detail

DEF Other	12				15,761	15,774
DEF Power Delivery	0	3,435	2,938		11,299	17,672
DEF Retail					6,649	6,649
DEI Central Progs Svcs		9,931			2,837	12,769
DEI Coal Combustion Products		475,698			7,815	483,513
DEI Customer					17,384	17,384
DEI Fossil Hydro					819	819
DEI Other					16,549	16,549
DEI Power Delivery	88	1,674			20,121	21,883
DEK Customer		10,969			287,225	298,194
DEK Fossil		84,574	(119,563)		3,427,978	3,427,978
DEK Gas		1,267			2,563	3,831
DEK Other		39,900				39,900
DEK Power Delivery	20,737	2,734,191	(1,938,537)	0	1,756,321	2,572,711
DEP Central Progs Svcs		14,493			17,304	31,797
DEP Environmental		42			197	238
DEP Fleet Maint Svcs		2,710			2,044	4,755
DEP Fossil Hydro		43			1,333	1,376
DEP Gen Ops Support		4,427			19,473	23,901
DEP Nuclear					265	265
DEP Org Effectiveness					25,058	25,058
DEP Other	14	14			55,009	55,023
DEP Power Delivery		8,334	8,582		46,871	63,800
DEP Regional Svcs					21	21
DEP Retail		107			36,740	36,848
Duke Energy Ohio - RU	155	217,480	39,644		467,688	724,968
Marketing & Customer Engagemen		1,596			17,370	18,966
Piedmont Gas - Customer					4,074	4,074
Piedmont Gas - Delivery					2,715	2,715
Piedmont Gas - Other					7,344	7,344
SrvCo Coal Combustion Products		37,329			22,385	59,714
SrvCo Construct & Proj Mgmt		27,924	16,344		36,611	80,879
SrvCo Customer Service	0	28,478	17,168	0	696,675	742,322
SrvCo Enterprise Business Svs	643,080	360,490	124,150	65	1,405,099	2,532,884
SrvCo EnviroHealthSafety	50	127,684	63,673		249,413	440,821
SrvCo Fossil Hydro Total		86,868			1,694,970	1,781,838
SrvCo Gas		3,541	(213)		1,143	4,471
SrvCo Gen Support	1,654	18,768			29,940	50,362
SrvCo Nuclear					1,780	1,780
SrvCo Other	1,102	72,121	26,921		629,143	729,286
SrvCo Power Delivery	1,711	984,740	1,336,095	0	1,642,718	3,965,265
Sep 2017						
100 Org Effectiveness		13,097			19,849	32,947
110 Central Progs Svcs		198,385			208,602	406,987
110 Regional Svcs		576,335	290		140,676	717,301
CE Commercial Power					525	525
Corporate Governance DiscOps	41,009	14,173	1,157		140,458	196,796
DE Renewables & Transmission		19,624		6	6	19,630
DEC Central Programs Services		45,459			65,215	110,674
DEC Coal Combustion Products		118,380			2,026	120,406
DEC Customer	0	(46,213)			305,813	259,600
DEC Customer Experience		1,659			29,093	30,751
DEC Environmental		1,531			2,299	3,830
DEC Fleet Maint Svcs		37,305			28,847	66,151

Actual - 12 months ending December 2017

See second query for department detail

DEC Fossil Hydro						12,286
DEC Gen Ops Support						7,254
DEC Nuclear						42,663
DEC Org Effectiveness						6,563
DEC Other						30,680
DEC Other Misc						173,851
DEC Power Delivery						33,917
DEC President & Staff						98,743
DEC Rates						245,160
DEC Regional Svcs						11,608
DEC Wholesale Pwr & Rnwable Gen						476
DEF Central Progs Svcs						32
DEF Fleet Maint Svcs						30,037
DEF Fossil Hydro						2,180
DEF Gen Ops Support						283
DEF Org Effectiveness						14
DEF Other						0
DEF Power Delivery						522
DEF Retail						4,733
DEI Central Progs Svcs						4,733
DEI Coal Combustion Products						17,714
DEI Customer						17,729
DEI Fossil Hydro						19,643
DEI Other						7,755
DEI Power Delivery						7,755
DEK Customer						3,205
DEK Gas						14,423
DEK Other						8,957
DEK Power Delivery						540,193
DEP Central Progs Svcs						19,882
DEP Environmental						850
DEP Fleet Maint Svcs						850
DEP Fossil Hydro						18,748
DEP Gen Ops Support						23,708
DEP Nuclear						25,563
DEP Org Effectiveness						342,033
DEP Other						357,306
DEP Power Delivery						4,085,362
DEP Regional Svcs						4,047,132
DEP Retail						2,994
Duke Energy Ohio - RU						39,900
Marketing & Customer Engagemen						3,030,638
Piedmont Gas - Customer						3,003,603
Piedmont Gas - Delivery						17,881
Piedmont Gas - Other						197
Srvco Coal Combustion Products						236
Srvco Construct & Proj Mgmt						4,947
Srvco Customer Service						1,655
Srvco Enterprise Business Svs						1,655
Srvco EnviroHealthSafety						21,621
Srvco Fossil Hydro Total						26,827
Srvco Gas						266
Srvco Gen Support						266
						28,030
						28,030
						62,360
						53,812
						72,517
						21
						21
						40,851
						40,974
						869,743
						541,965
						19,315
						21,070
						4,645
						4,645
						3,259
						3,259
						9,032
						9,032
						24,375
						66,875
						93,070
						38,463
						803,269
						859,072
						1,600,081
						2,906,002
						280,911
						503,470
						1,894,510
						1,988,279
						1,222
						5,018
						27,651
						66,216

Actual - 12 months ending December 2017

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SrvCo Nuclear						1,851		1,851
SrvCo Other						703,873		816,540
SrvCo Power Delivery						1,831,855		4,531,750
Q4 2017					0			
Oct 2017								
100 Org Effectiveness						22,468		38,981
110 Central Progs Svcs						227,550		450,205
110 Regional Svcs						161,557		796,697
CE Commercial Power						525		525
Corporate Governance DiscOps						165,684		227,204
DE Renewables & Transmission						6		28,584
DEC Central Programs Services						73,485		123,063
DEC Coal Combustion Products						2,286		133,210
DEC Customer	0					288,817		289,846
DEC Customer Experience						80,657		35,567
DEC Environmental						2,464		4,177
DEC Fleet Maint Svcs						29,407		66,711
DEC Fossil Hydro						13,865		13,865
DEC Gen Ops Support						7,444		47,223
DEC Nuclear	7					6,163		6,616
DEC Org Effectiveness						33,769		33,769
DEC Other						191,911		192,710
DEC Other Misc	(0)					38,842		105,211
DEC Power Delivery						252,278		272,737
DEC President & Staff	41		2,298		193	13,050		13,050
DEC Rates						370		370
DEC Regional Svcs						32		32
DEC Wholesale Pwr & Renewable Gen						33,320		33,555
DEF Central Progs Svcs						2,297		2,886
DEF Fleet Maint Svcs						333		333
DEF Fossil Hydro						35		35
DEF Gen Ops Support	14					0		613
DEF Org Effectiveness						5,312		5,312
DEF Other	18					19,427		19,446
DEF Power Delivery	0					14,485		23,415
DEF Retail						8,682		8,682
DEI Central Progs Svcs						3,592		16,165
DEI Coal Combustion Products						10,393		598,356
DEI Customer						21,864		21,864
DEI Fossil Hydro						850		850
DEI Other						21,172		21,172
DEI Power Delivery	88					27,232		32,303
DEK Customer						381,159		400,636
DEK Fossil						4,497,469		4,463,181
DEK Gas						3,141		4,597
DEK Other						39,900		39,900
DEK Power Delivery						2,216,672		3,336,972
DEP Central Progs Svcs	22,662				0	18,309		35,910
DEP Coal Combustion Products						498		498
DEP Environmental						231		273
DEP Fleet Maint Svcs						2,437		5,148
DEP Fossil Hydro						2,037		2,079
DEP Gen Ops Support						21,801		29,261
DEP Nuclear						(266)		(266)

Actual - 12 months ending December 2017 See second query for department detail

DEP Org Effectiveness									30,945	30,945	
DEP Other									69,803	69,817	
DEP Power Delivery									61,699	82,260	
DEP Regional Svcs									138	138	
DEP Retail									45,173	45,325	
Duke Energy Ohio - RU									612,762	1,021,497	
Marketing & Customer Engagemen									21,478	23,483	
Piedmont Gas - Customer									5,220	5,220	
Piedmont Gas - Delivery									3,953	3,953	
Piedmont Gas - Other									10,476	10,476	
Srvco Coal Combustion Products									27,572	74,214	
SrvCo Construct & Proj Mgmt									42,381	109,668	
Srvco Customer Service	434								889,923	953,885	0
SrvCo Enterprise Business Svs	834,321								1,780,125	3,238,471	65
SrvCo EnviroHealthSafety	59								308,854	559,156	
SrvCo Fossil Hydro Total									2,103,930	2,214,409	
SrvCo Gas									1,299	5,146	
SrvCo Gen Support	1,637								26,255	66,568	
SrvCo Nuclear									2,441	2,441	
SrvCo Other	1,237								781,418	904,883	
SrvCo Power Delivery	16,781								2,012,178	5,113,026	0
Nov 2017											
100 Org Effectiveness									24,444	44,720	
110 Central Progs Svcs									246,659	494,669	
110 Regional Svcs									173,930	872,852	
CE Commercial Power									525	525	
Corporate Governance DiscOps									192,603	258,588	
DE Renewables & Transmission									6	35,160	
DEC Central Programs Services									81,135	134,533	
DEC Coal Combustion Products									2,658	144,045	
DEC Customer	0								294,656	295,901	
DEC Customer Experience									37,800	39,765	
DEC Environmental									2,667	4,564	
DEC Fleet Maint Svcs									30,088	74,927	
DEC Fossil Hydro									14,769	14,769	
DEC Gen Ops Support									7,625	50,591	
DEC Nuclear	8								6,217	6,670	
DEC Org Effectiveness									36,619	36,619	
DEC Other									207,775	208,628	
DEC Other Misc	50								43,661	113,853	
DEC Power Delivery									275,121	297,313	405
DEC President & Staff	0								14,344	14,344	
DEC Rates									370	370	
DEC Regional Svcs									32	32	
DEC Wholesale Pwr & Rnwable Gen									36,731	37,295	
DEF Central Progs Svcs	139								2,588	3,264	247
DEF Fleet Maint Svcs									340	340	
DEF Fossil Hydro									958	958	
DEF Gen Ops Support	14								0	727	
DEF Org Effectiveness									5,739	5,739	
DEF Other	19								21,369	21,390	
DEF Power Delivery	0								16,040	27,365	
DEF Retail									9,641	9,641	
DEI Central Progs Svcs									3,903	17,565	

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DEI Coal Combustion Products	630,201			11,683	641,885
DEI Customer				23,802	23,802
DEI Fossil Hydro				850	850
DEI Other				23,157	23,157
DEI Power Delivery	88	2,140	3,000	29,045	34,274
DEK Customer		23,483		416,944	440,427
DEK Fossil		130,742	(151,864)	4,913,185	4,892,064
DEK Gas		1,455		3,196	4,651
DEK Other		39,900			39,900
DEK Power Delivery	23,445	3,836,924	(2,585,005)	2,379,178	3,654,541
DEP Central Progs Svcs		18,805		18,743	37,548
DEP Coal Combustion Products		546			546
DEP Environmental		42		231	273
DEP Fleet Maint Svcs		2,710		2,620	5,331
DEP Fossil Hydro		43		2,588	2,630
DEP Gen Ops Support		8,033		23,714	31,747
DEP Nuclear		1		(532)	(531)
DEP Org Effectiveness				33,635	33,635
DEP Other		14		76,031	76,045
DEP Power Delivery	14	11,457	10,990	68,968	91,429
DEP Regional Svcs				172	172
DEP Retail		188		48,729	48,917
Duke Energy Ohio - RU		423,006	59,520	676,209	1,158,891
Marketing & Customer Engagemen		2,197		23,468	25,665
Piedmont Gas - Customer				5,798	5,798
Piedmont Gas - Delivery				4,493	4,493
Piedmont Gas - Other				12,073	12,073
Srvco Coal Combustion Products		50,558		29,656	80,213
Srvco Construct & Proj Mgmt		55,496	24,288	44,638	124,421
Srvco Customer Service	434	46,423	28,960	968,720	1,044,536
Srvco Enterprise Business Svs	908,229	517,339	154,821	1,953,976	3,534,429
Srvco EnviroHealthSafety	63	186,082	85,499	336,533	608,176
Srvco Fossil Hydro Total		131,075		2,300,652	2,431,727
SrvCo Gas		4,106	(213)	1,369	5,261
SrvCo Gen Support	5,204	43,951		28,277	77,431
SrvCo Nuclear				2,777	2,777
SrvCo Other	1,321	99,299	33,386	850,851	984,858
SrvCo Power Delivery	17,604	1,517,417	1,919,575	2,177,815	5,632,411
Dec 2017					
100 Org Effectiveness		23,271		26,057	49,328
110 Central Progs Svcs		252,909		259,057	511,965
110 Regional Svcs		755,831	290	189,371	945,492
CE Commercial Power				525	525
Corporate Governance DiscOps	53,815	15,462	1,157	214,810	285,244
DE Renewables & Transmission		38,676		81	38,757
DEC Central Programs Services		61,634		87,119	148,753
DEC Coal Combustion Products		149,222		2,884	152,105
DEC Customer	0	1,453		323,605	325,058
DEC Customer Experience		2,066		41,084	43,149
DEC Environmental		2,034		2,672	4,707
DEC Fleet Maint Svcs		49,227		30,583	79,810
DEC Fossil Hydro				15,545	15,545
DEC Gen Ops Support		47,718		7,829	55,546
DEC Nuclear	8	446		6,233	6,687

Actual - 12 months ending December 2017

See second query for department detail

SrvCo Other	1,387	106,332	34,751	907,360	1,049,829
SrvCo Power Delivery	18,031	1,684,481	2,062,634	2,278,005	6,043,151
Grand Total	1,076,193	10,011,025	(466,275)	20,582,574	31,204,510

Actual - 12 months ending December 2016

See second query for department detail

Business Unit Hierarchy
 Account CB
 Responsibility Center Level 02 Name
 Resource Type CB

DUKE_ENERGY_KY_ELEC - Duke Energy Kentucky Electric
 (Multiple Items)
 (Multiple Items)
 (Multiple Items)

Column Labels
 WTB_MANG_REPORT
 ALL_ACCOUNTS - All Accounts
 BALANCE_SHEET - Balance Sheet
 ASSET - Assets

INC_STMT - Income Statement
 INCOME_CO - Income, Continuing Operations
 O&M_OTHER_EXPENSES - O&M and Other Expenses

LIABILITY - Liabilities
 INDIRECT - Indirect
 CAPITAL - Capital

Grand Total

YTD Actual Amount	65,236	487,800	(64,786)	11,138	1,684,121
Q1 2016					
Jan 2016	139,699	1,048,783	(83,079)	11,676	2,183,509
Feb 2016	220,288	1,646,134	(116,938)	11,676	3,442,316
Mar 2016					5,240,860
Q2 2016					
Apr 2016	344,578	2,461,139	(177,177)	11,786	7,717,405
May 2016	424,344	3,131,779	(226,105)	11,896	9,495,503
Jun 2016	502,233	3,448,087	(278,184)	11,896	11,159,633
Q3 2016					
Jul 2016	575,856	4,040,032	(337,473)	11,896	12,724,820
Aug 2016	654,198	4,676,539	(375,216)	11,942	14,362,570
Sep 2016	738,838	5,350,418	(429,982)	11,942	16,457,568
Q4 2016					
Oct 2016	811,941	6,092,539	(524,310)	11,942	18,100,840
Nov 2016	888,611	6,456,160	(598,721)	11,942	19,639,754
Dec 2016	961,992	7,113,207	(788,249)	12,131	21,100,401
Grand Total	961,992	7,113,207	(788,249)	12,131	28,399,483

DUKE_ENERGY_KY_ELEC - Duke Energy Kentucky Electric
 (Multiple Items)
 (Multiple Items)
 (Multiple Items)

Column Labels
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 O&M_OTHER_EXPENSES - O&M and Other Expenses

LIABILITY - Liabilities
 INDIRECT - Indirect
 CAPITAL - Capital

Grand Total

YTD Actual Amount	2	360	3,362	1,736	2,095
Q1 2016					
Jan 2016				17,816	28,428
100 Org Effectiveness				7,896	63,122
110 Central Progs Svcs				2,325	4,242
110 Regional Svcs				21,333	32,411
CE Commercial Power				236	236
Corporate Governance DiscOps				5,846	9,356
DE Renewables & Transmission					
DEC Central Programs Services					
Grand Total	2	360	3,362	1,736	2,095

Actual - 12 months ending December 2016

See second query for department detail

DEC Coal Combustion Products				
DEC Customer	1,652	(46)		14,661
DEC Customer Experience	(46)			29,522
DEC Fleet Maint Svcs	136			3,011
DEC Fossil Hydro				3,476
DEC Gen Ops Support	261			220
DEC Nuclear	723			2,944
DEC Org Effectiveness	0			9
DEC Other				1,997
DEC Other Misc	62			14,430
DEC Power Delivery	121			15,959
DEC President & Staff	1,137	1,462		18,120
DEC Rates				1,081
DEC Wholesale Pwr & Rnwable Gen				10
DEF Central Progs Svcs	257			2,744
DEF Fossil Hydro	259			478
DEF Gen Ops Support	126			735
DEF Org Effectiveness				259
DEF Other				127
DEF Power Delivery	714			520
DEF Retail	4			52
DEI Central Progs Svcs	783			315
DEI Coal Combustion Products	24,518	(1,220)	2,054	706
DEI Customer				389
DEI Org Effectiveness				17,856
DEI Other				1,233
DEI Power Delivery	(89)			400
DEK Customer				3,407
DEK Fossil	14,582	(17,508)		(53)
DEK Gas	112			25,174
DEK Other	0			368,958
DEP Power Delivery	254,046	(198,624)		112
DEP Central Progs Svcs	125			0
DEP Coal Combustion Products	441			231,876
DEP Gen Ops Support				542
DEP Org Effectiveness				441
DEP Other				1,810
DEP Power Delivery	507			1,087
DEP Retail	(2)			7,542
Duke Energy Ohio - RU	4,916	2,100		3,885
Marketing & Customer Engagemen	17			4,392
Srvco Coal Combustion Products				3,748
Srvco Comm Power Other				11,070
Srvco Construct & Proj Mgmt				4,633
Srvco Customer Service	2,706			11,387
Srvco Enterprise Business Svs	3,833			1,161
Srvco EnviroHealthSafety	29,213	30,389	1,580	1,882
Srvco Fossil Hydro Total	6	2,783	4,188	4,588
Srvco Gas	7,239			108,620
Srvco Gen Support	362			216,048
Srvco Nuclear	954			35,714
Srvco Other	117			261,350
Srvco Power Delivery	0	61,773	109,283	732
US DE International				370
				2,633
				66
				72,552
				3,681
				66
				78,227
				362,689
				37

Actual - 12 months ending December 2016

See second query for department detail

Department	0	3,955	3,662	3,695	7,649
Feb 2016					
100 Org Effectiveness		14,712		41,021	59,096
110 Central Progs Svcs	2	105,677	3,362	16,745	122,422
110 Regional Svcs		11,501		14,182	25,684
CE Commercial Power		6,257	12,477	46,353	77,304
Corporate Governance DiscOps				494	494
DE Renewables & Transmission		7,406		10,812	18,218
DEC Central Programs Services		10,491	(46)	20,099	30,545
DEC Coal Combustion Products		(46)		61,692	61,646
DEC Customer		272		6,083	6,355
DEC Customer Experience				10	10
DEC Environmental				7,425	7,425
DEC Fleet Maint Svcs		497		445	942
DEC Gen Ops Support		3,399		3,443	6,842
DEC Nuclear	0	237		32	269
DEC Org Effectiveness		132		3,904	3,904
DEC Other		239		28,961	29,093
DEC Other Misc		2,111	2,917	28,410	28,649
DEC Power Delivery	0			37,373	42,400
DEC President & Staff				3,016	3,016
DEC Rates		15		15	15
DEC Wholesale Pwr & Renewable Gen		620		7,684	7,684
DEF Central Progs Svcs		471		1,111	1,731
DEF Fossil Hydro		462		194	664
DEF Gen Ops Support				0	463
DEF Org Effectiveness	(0)	(2)		1,045	1,045
DEF Other	0	1,403		(25)	(27)
DEF Power Delivery		6		945	2,347
DEF Retail		2,190		1,483	1,490
DEI Central Progs Svcs		60,888	(1,220)	1,055	3,245
DEI Coal Combustion Products				30,452	92,175
DEI Customer				3,021	3,021
DEI Fossil Hydro				111	111
DEI Org Effectiveness		(5)		842	842
DEI Other				7,173	7,173
DEI Power Delivery				82	77
DEK Customer		13,292	(35,930)	54,290	54,290
DEK Fossil		530		765,981	743,343
DEK Gas				530	530
DEK Other				0	0
DEK Power Delivery	57	531,587	(366,668)	367,135	532,649
DEP Central Progs Svcs		340		1,077	1,417
DEP Coal Combustion Products		807		807	807
DEP Gen Ops Support		278		3,607	3,885
DEP Org Effectiveness				2,398	2,398
DEP Other				16,207	16,207
DEP Power Delivery		1,147		7,646	8,793
DEP Retail		(2)		7,542	7,540
Duke Energy Ohio - RU		13,954	4,819	23,543	42,315
Marketing & Customer Engagemen		17		7,629	7,646
Srvco Coal Combustion Products		3,399		17,263	20,662
SrvCo Comm Power Other				2,299	2,299
SrvCo Construct & Proj Mgmt		5,538		4,523	10,061

Actual - 12 months ending December 2016

See second query for department detail

Srvco Customer Service	10,304		61,986	1,580	231,949	242,254
SrvCo Enterprise Business Svs	59,309		5,939	4,188	437,944	687,742
SrvCo EnviroHealthSafety	12				50,005	72,250
SrvCo Fossil Hydro Total	10,303				507,121	517,424
SrvCo Gas	810				437	1,246
SrvCo Gen Support	1,958				6,142	8,349
SrvCo Nuclear					136	136
SrvCo Other	1,679		11,072		146,426	159,416
SrvCo Power Delivery	0		221,529		391,609	761,693
US DE International					23	23
Mar 2016						
100 Org Effectiveness	7,550				5,019	12,569
110 Central Progs Svcs	2			3,362	63,612	95,572
110 Regional Svcs	165,774				26,680	192,453
CE Commercial Power	21,623				29,486	51,108
Corporate Governance DiscOps	8,344		22,883		72,426	122,185
DE Renewables & Transmission					607	607
DEC Central Programs Services	11,316			(46)	16,299	27,615
DEC Coal Combustion Products	36,842				15,868	52,664
DEC Customer	1,105				93,577	94,682
DEC Customer Experience	425				8,916	9,341
DEC Environmental	31				10	40
DEC Fleet Maint Svcs	497				10,520	10,520
DEC Fossil Hydro	6,681				939	1,436
DEC Gen Ops Support	237				4,468	11,149
DEC Nuclear		1			46	283
DEC Org Effectiveness					5,692	5,692
DEC Other	205				45,807	46,012
DEC Other Misc	352				43,210	43,562
DEC Power Delivery		(0)	1,462		56,201	60,833
DEC President & Staff	3,170				4,688	4,688
DEC Rates					20	20
DEC Wholesale Pwr & Rnwable Gen					11,030	11,030
DEF Central Progs Svcs	878				1,568	2,446
DEF Fossil Hydro	471				332	803
DEF Gen Ops Support	462				0	463
DEF Org Effectiveness		2			1,526	1,526
DEF Other	(2)				161	162
DEF Power Delivery	2,114				1,611	3,725
DEF Retail	6				2,046	2,052
DEI Central Progs Svcs	3,635				1,634	5,269
DEI Coal Combustion Products	102,119		(1,220)	2,054	22,904	125,857
DEI Customer					4,557	4,557
DEI Fossil Hydro	0				111	111
DEI Org Effectiveness					1,335	1,335
DEI Other	94				10,975	10,975
DEI Power Delivery					297	391
DEK Customer					84,596	84,596
DEK Fossil	28,135		(54,526)		1,159,230	1,132,838
DEK Gas	639				639	639
DEK Other	0				0	0
DEK Power Delivery	806,341		(540,738)	538	573,208	839,407
DEP Central Progs Svcs	597				1,628	2,225
DEP Coal Combustion Products	904				904	904

Actual - 12 months ending December 2016

See second query for department detail

DEP Fleet Maint Svcs				442	442
DEP Fossil Hydro				69	69
DEP Gen Ops Support		679		5,411	6,090
DEP Org Effectiveness				4,721	4,721
DEP Other				23,611	23,611
DEP Power Delivery	0	1,759		11,966	13,726
DEP Retail		(2)		11,436	11,434
Duke Energy Ohio - RU		8,751	7,651	64,976	81,378
Marketing & Customer Engagemen		30		10,027	10,057
Srvco Coal Combustion Products		7,305		21,970	29,275
SrvCo Comm Power Other				3,561	3,561
SrvCo Construct & Proj Mgmt				7,084	15,345
SrvCo Customer Service		8,260		355,669	371,282
SrvCo Enterprise Business Svs		15,614	0	658,789	1,046,217
SrvCo EnviroHealthSafety	199,445	90,881	95,522	1,580	
SrvCo Fossil Hydro Total	17	20,506	8,963	4,188	
SrvCo Gas		14,019		771,593	785,613
SrvCo Gen Support		1,135		526	1,660
SrvCo Nuclear		3,183		9,750	14,810
SrvCo Other	357	3,108	16,642	205	205
SrvCo Power Delivery	0	231,763	326,422	225,605	245,712
US DE International				595,370	1,153,555
Q2 2016				17	17
Apr 2016					
100 Org Effectiveness		16,060		6,987	23,048
110 Central Progs Svcs	2	38,689		97,075	139,127
110 Regional Svcs		247,396		34,844	282,241
CE Commercial Power		34,028		48,686	82,714
Corporate Governance DiscOps		39,387	6,096	84,317	157,511
DE Renewables & Transmission				631	631
DEC Central Programs Services		14,665		21,616	36,281
DEC Coal Combustion Products		49,234		15,791	64,979
DEC Customer		1,107		123,318	124,425
DEC Customer Experience		532		13,667	14,199
DEC Environmental		36		10	46
DEC Fleet Maint Svcs				29,167	29,167
DEC Fossil Hydro		497		3,195	3,692
DEC Gen Ops Support		10,218		5,263	15,481
DEC Nuclear		237		73	311
DEC Org Effectiveness	1			7,902	7,902
DEC Other		742		60,315	61,057
DEC Other Misc		5,174		53,686	58,861
DEC Power Delivery		4,483	1,462	77,987	83,932
DEC President & Staff				6,031	6,031
DEC Rates				24	24
DEC Wholesale Pwr & Rnwable Gen		2		14,367	14,370
DEF Central Progs Svcs		1,029		1,880	2,909
DEF Fossil Hydro		471		601	1,072
DEF Gen Ops Support		462		0	463
DEF Org Effectiveness				2,188	2,188
DEF Other	5	(2)		406	410
DEF Power Delivery	0	2,955		2,411	5,366
DEF Retail				2,839	2,845
DEI Central Progs Svcs		5,147		2,344	7,491

Actual - 12 months ending December 2016

See second query for department detail

DEI Coal Combustion Products	143,279	(1,220)	2,054	32,264	176,378
DEI Customer	0			6,111	6,111
DEI Fossil Hydro				2,348	2,348
DEI Org Effectiveness				1,714	1,714
DEI Other				14,501	14,501
DEI Power Delivery	0			416	603
DEK Customer	33,052	(74,108)		129,418	129,418
DEK Fossil	757			1,905,008	1,863,952
DEK Gas	0			757	757
DEK Other				0	0
DEK Power Delivery	57	1,153,757	(748,662)	895,507	1,301,198
DEP Central Progs Svcs	883		538	2,396	3,279
DEP Coal Combustion Products	904			904	904
DEP Fleet Maint Svcs				911	911
DEP Fossil Hydro				244	244
DEP Gen Ops Support	1,062			7,262	8,324
DEP Org Effectiveness				7,317	7,317
DEP Other				32,515	32,515
DEP Power Delivery	0	2,808		15,493	18,301
DEP Retail	(2)			16,234	16,232
Duke Energy Ohio - RU	34,007	10,614		101,991	146,611
Marketing & Customer Engagemen	95			12,264	12,360
Srvco Coal Combustion Products	16,668			20,982	37,649
SrvCo Comm Power Other				3,561	3,561
SrvCo Construct & Proj Mgmt	10,376			9,771	20,147
Srvco Customer Service	26,179	4,064		506,088	536,331
SrvCo Enterprise Business Svs	314,436	129,141	1,580	888,509	1,463,343
SrvCo EnviroHealthSafety	23	29,521	4,299	110,214	156,374
SrvCo Fossil Hydro Total	23,016	12,316		1,123,602	1,146,618
SrvCo Gas	1,559			602	2,161
SrvCo Gen Support	1,877	4,642		12,915	19,433
SrvCo Nuclear				254	254
SrvCo Other	466	3,698		307,056	333,785
SrvCo Power Delivery	0	372,993	460,020	832,296	1,665,309
US DE International				17	17
May 2016					
100 Org Effectiveness				9,044	27,978
110 Central Progs Svcs	2	49,686	3,362	115,309	168,358
110 Regional Svcs		324,763		35,070	359,833
CE Commercial Power		42,466		49,722	92,188
Corporate Governance DiscOps	33,730	52,690	7,422	96,275	190,117
DE Renewables & Transmission				655	655
DEC Central Programs Services		18,039		27,063	45,103
DEC Coal Combustion Products		59,805	(46)	15,940	75,699
DEC Customer	0	1,107		150,225	151,332
DEC Customer Experience		699		16,630	17,329
DEC Environmental		102		12	114
DEC Fleet Maint Svcs		497		33,081	33,081
DEC Fossil Hydro		13,104		3,197	3,694
DEC Gen Ops Support		237		5,700	18,804
DEC Nuclear	1			2,199	2,437
DEC Org Effectiveness		1,876		10,026	10,026
DEC Other		15,700		72,642	74,518
DEC Other Misc				59,671	75,371

Actual - 12 months ending December 2016

See second query for department detail

DEC Power Delivery					96,659	103,903
DEC President & Staff					7,510	7,510
DEC Rates					26	26
DEC Wholesale Pwr & Renewable Gen					17,874	17,876
DEF Central Progs Svcs					2,271	3,490
DEF Fossil Hydro					1,241	1,711
DEF Gen Ops Support					0	463
DEF Org Effectiveness					2,851	2,851
DEF Other					441	445
DEF Power Delivery					2,921	6,569
DEF Retail					3,710	3,716
DEI Central Progs Svcs					2,928	9,526
DEI Coal Combustion Products					38,330	220,434
DEI Customer				2,054	7,175	7,175
DEI Fossil Hydro					2,348	2,348
DEI Org Effectiveness					2,064	2,064
DEI Other					18,048	18,048
DEI Power Delivery					506	777
DEK Customer					159,099	159,099
DEK Fossil					2,353,442	2,324,939
DEK Gas					6	850
DEK Other					0	0
DEK Power Delivery					1,100,304	1,606,021
DEP Central Progs Svcs					3,222	4,362
DEP Coal Combustion Products					904	904
DEP Fleet Maint Svcs					1,370	1,370
DEP Fossil Hydro					412	412
DEP Gen Ops Support					8,905	10,306
DEP Nuclear					1,887	1,887
DEP Org Effectiveness					9,147	9,147
DEP Other					41,688	41,688
DEP Power Delivery					20,363	24,246
DEP Regional Svcs					12	12
DEP Retail					20,676	20,674
Duke Energy Ohio - RU					125,079	177,349
Marketing & Customer Engagemen					14,639	14,835
Srvco Coal Combustion Products					25,993	46,381
SrvCo Comm Power Other					3,561	3,561
SrvCo Construct & Proj Mgmt					12,019	25,237
Srvco Customer Service					631,138	668,006
SrvCo Enterprise Business Svcs					1,090,694	1,801,234
SrvCo EnviroHealthSafety					136,688	193,509
SrvCo Fossil Hydro Total					1,409,595	1,446,801
SrvCo Gas					2,196	4,046
SrvCo Gen Support					15,581	23,845
SrvCo Nuclear					319	319
SrvCo Other					384,778	417,958
SrvCo Power Delivery					1,013,327	2,052,851
US DE International					(0)	(0)
Jun 2016						
100 Org Effectiveness					11,984	34,851
110 Central Progs Svcs					140,269	205,806
110 Regional Svcs					36,668	417,618
CE Commercial Power					50,274	92,740

Actual - 12 months ending December 2016

See second query for department detail

Corporate Governance DiscOps	40,308	64,907	8,668	108,093	221,976
DE Renewables & Transmission				677	677
DEC Central Programs Services		21,676		33,323	54,999
DEC Coal Combustion Products		70,280	(46)	16,070	86,304
DEC Customer	0	2,502		183,015	185,517
DEC Customer Experience		898		19,522	20,419
DEC Environmental		124		17	141
DEC Fleet Maint Svcs		497		33,866	33,866
DEC Fossil Hydro		16,081		4,400	4,897
DEC Gen Ops Support	2	237		6,125	22,206
DEC Nuclear				2,277	2,516
DEC Org Effectiveness				12,419	12,419
DEC Other		1,886		86,035	87,921
DEC Power Delivery		26,557		66,789	93,346
DEC President & Staff	(0)	7,283	1,462	115,171	123,916
DEC Rates				8,854	8,854
DEC Wholesale Pwr & Rnwable Gen		2		28	28
DEF Central Progs Svcs		1,462		22,405	22,407
DEF Fossil Hydro		471		2,745	4,207
DEF Gen Ops Support		462		1,457	1,928
DEF Org Effectiveness				0	463
DEF Other	2	(2)		3,603	3,603
DEF Power Delivery	0	4,045		140	140
DEF Retail		6		3,717	7,762
DEI Central Progs Svcs		8,046		4,582	4,589
DEI Coal Combustion Products		221,780	(1,220)	39,999	262,613
DEI Customer			2,054	7,608	7,608
DEI Fossil Hydro		0		2,348	2,348
DEI Org Effectiveness				2,503	2,503
DEI Other				22,115	22,115
DEK Power Delivery	0	469		689	1,157
DEK Customer		(196,785)	(113,990)	187,088	187,088
DEK Fossil		955		2,742,368	2,431,594
DEK Gas		0		6	962
DEK Other				0	0
DEK Power Delivery	57	1,723,728	(1,135,772)	1,302,504	1,891,055
DEP Central Progs Svcs		1,458	538	5,641	7,099
DEP Coal Combustion Products		904		904	904
DEP Environmental		323		11	334
DEP Fleet Maint Svcs				1,852	1,852
DEP Fossil Hydro				562	562
DEP Gen Ops Support		1,693		10,566	12,259
DEP Nuclear				1,887	1,887
DEP Org Effectiveness				10,461	10,461
DEP Other				49,660	49,660
DEP Power Delivery	0	4,845		24,704	29,549
DEP Regional Svcs				52	52
DEP Retail		(2)		25,378	25,376
Duke Energy Ohio - RU		43,267	17,532	159,634	220,434
Marketing & Customer Engagemen		391		16,729	17,120
SrvCo Coal Combustion Products		25,008		29,434	54,441
SrvCo Comm Power Other				3,561	3,561
SrvCo Construct & Proj Mgmt		16,181		14,233	30,414

Actual - 12 months ending December 2016

See second query for department detail

Srvco Customer Service	42,179	8,312	732,921	783,412
SrvCo Enterprise Business Svs	198,761	188,804	1,289,635	2,137,670
SrvCo EnviroHealthSafety	46,371	19,294	163,234	233,341
SrvCo Fossil Hydro Total	39,104		1,646,703	1,685,807
SrvCo Gas	2,039		2,763	4,802
SrvCo Gen Support	8,165		18,448	28,492
SrvCo Nuclear			391	391
SrvCo Other	666	34,155	466,112	506,270
SrvCo Power Delivery	394	694,232	1,199,826	2,420,830
US DE International			(0)	(0)
Q3 2016				
Jul 2016				
100 Org Effectiveness	26,355		14,910	41,265
110 Central Progs Svcs	74,807		156,582	234,752
110 Regional Svcs	434,949	334	36,731	472,015
CE Commercial Power	42,466		50,274	92,740
Corporate Governance DiscOps	76,897	9,895	119,831	253,636
DE Renewables & Transmission	25,551		693	693
DEC Central Programs Services	87,020		38,130	63,682
DEC Coal Combustion Products	2,506		6,981	93,955
DEC Customer	1,071		209,822	212,328
DEC Customer Experience	183		20,916	21,987
DEC Environmental			17	201
DEC Fleet Maint Svcs	498		34,666	34,666
DEC Fossil Hydro	18,483		5,394	5,892
DEC Gen Ops Support	237		6,590	25,072
DEC Nuclear			2,290	2,528
DEC Org Effectiveness	1,896		14,133	14,133
DEC Other	50,691		98,790	100,687
DEC Other Misc	9,044	1,462	54,031	104,722
DEC Power Delivery			130,590	141,095
DEC President & Staff			10,120	10,120
DEC Rates			28	28
DEC Wholesale Pwr & Rnwable Gen	2		26,117	26,119
DEF Central Progs Svcs	1,642		3,100	4,742
DEF Fossil Hydro	471		1,533	2,003
DEF Gen Ops Support	462		0	463
DEF Org Effectiveness	(2)		4,288	4,288
DEF Other			222	222
DEF Other Misc			10	10
DEF Power Delivery	0		4,500	9,051
DEF Retail	6		5,298	5,305
DEI Central Progs Svcs	9,489		4,063	13,551
DEI Coal Combustion Products	283,112	(1,220)	4,516	288,462
DEI Customer			8,331	8,331
DEI Fossil Hydro	0		2,348	2,348
DEI Org Effectiveness			2,873	2,873
DEI Other			25,611	25,611
DEI Power Delivery	0		726	1,277
DEK Customer	(206,030)	(135,058)	215,311	215,311
DEK Fossil	1,065		3,149,937	2,808,849
DEK Gas	0		6	1,071
DEK Other				0
DEK Power Delivery	57	1,981,768	1,537,845	2,200,658
		(1,319,549)	538	

Actual - 12 months ending December 2016

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DEP Central Progs Svcs	1,770			7,396	9,165
DEP Coal Combustion Products	904				904
DEP Environmental	0			11	11
DEP Fleet Maint Svcs				2,273	2,273
DEP Fossil Hydro	1			685	686
DEP Gen Ops Support	2,065			12,316	14,380
DEP Nuclear				1,887	1,887
DEP Org Effectiveness				11,456	11,456
DEP Other				57,402	57,402
DEP Power Delivery	0	5,832		28,175	34,007
DEP Regional Svcs				88	88
DEP Retail	33			29,588	29,622
Duke Energy Ohio - RU	59,605		20,309	194,695	274,610
Marketing & Customer Engagemen	610			18,887	19,497
Srvco Coal Combustion Products	29,498			24,709	54,206
SrvCo Comm Power Other				3,561	3,561
SrvCo Construct & Proj Mgmt	18,201			16,529	34,730
SrvCo Customer Service	48,857		8,312	834,609	891,778
SrvCo Enterprise Business Svs	230,321		216,778	1,473,299	2,447,718
SrvCo EnviroHealthSafety	525,741		22,527	190,506	274,294
SrvCo Fossil Hydro Total	40			1,876,001	1,918,606
SrvCo Gas	42,606			2,844	5,130
SrvCo Gen Support	1,880			21,094	33,173
SrvCo Nuclear				443	443
SrvCo Other	725	6,220	39,333	540,691	586,969
SrvCo Power Delivery	394	594,469	799,405	1,367,522	2,761,790
US DE International				(0)	(0)
Aug 2016					
100 Org Effectiveness					
110 Central Progs Svcs	29,302			17,967	47,269
110 Regional Svcs	89,116		3,362	173,269	265,749
CE Commercial Power	496,087		334	36,770	533,192
Corporate Governance DiscOps	44,308			50,274	94,582
DE Renewables & Transmission	90,570		11,825	130,856	286,898
DEC Central Programs Services	170			709	879
DEC Coal Combustion Products	29,333			44,011	73,344
DEC Customer	97,918		(46)	7,136	105,007
DEC Customer Experience	2,530			237,262	239,792
DEC Environmental	1,234			23,717	24,951
DEC Fleet Maint Svcs	263			83	346
DEC Fossil Hydro	498			38,129	38,129
DEC Gen Ops Support	20,913			6,309	6,807
DEC Nuclear	237			7,127	28,040
DEC Org Effectiveness	2			2,531	2,770
DEC Other	1,911			16,046	16,046
DEC Other Misc	55,786			119,024	120,935
DEC Power Delivery	10,618		1,462	60,719	116,505
DEC President & Staff	(0)			149,567	161,646
DEC Rates				11,213	11,213
DEC Wholesale Pwr & Rnwable Gen	2			28	28
DEF Central Progs Svcs	1,968			29,851	29,853
DEF Fossil Hydro	471			3,727	5,695
DEF Gen Ops Support	462			1,550	2,020
DEF Org Effectiveness				0	463
				5,028	5,028

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DEF Other	3	(2)			260	261
DEF Other Misc					18	18
DEF Power Delivery	0	4,810			5,451	10,261
DEF Retail		6			6,110	6,117
DEI Central Progs Svcs		10,936			4,648	15,584
DEI Coal Combustion Products		339,201	(1,220)	2,054	5,373	345,409
DEI Customer		0			8,850	8,850
DEI Fossil Hydro		0			2,348	2,348
DEI Org Effectiveness		646			3,300	3,300
DEI Other					28,287	28,287
DEI Power Delivery	0				756	1,402
DEK Customer		(197,107)	(154,091)		247,454	247,454
DEK Fossil		1,141			3,532,602	3,181,405
DEK Gas		0			6	1,148
DEK Other		0				0
DEK Power Delivery	57	2,238,167	(1,503,133)	538	1,751,880	2,487,509
DEP Central Progs Svcs		2,098			8,281	10,380
DEP Coal Combustion Products		904				904
DEP Environmental		0			14	14
DEP Fleet Maint Svcs		1			2,730	2,730
DEP Fossil Hydro		2,469			866	867
DEP Gen Ops Support					14,227	16,696
DEP Nuclear					1,887	1,887
DEP Org Effectiveness					12,517	12,517
DEP Other					65,743	65,743
DEP Power Delivery	0	6,775			32,380	39,155
DEP Regional Svcs					124	124
DEP Retail		57			34,123	34,180
Duke Energy Ohio - RU		75,400	22,475		217,891	315,765
Marketing & Customer Engagemen		868			21,077	21,945
Srvco Coal Combustion Products		34,331			28,251	62,582
Srvco Comm Power Other					3,561	3,561
SrvCo Construct & Proj Mgmt		21,036			18,874	39,910
Srvco Customer Service		59,747	8,312		962,808	1,030,868
SrvCo Enterprise Business Svs	593,397	269,119	245,448	1,580	1,671,101	2,780,646
SrvCo EnviroHealthSafety	46	67,220	25,999	4,455	221,514	319,234
SrvCo Fossil Hydro Total		49,978			2,094,682	2,144,660
SrvCo Gas		2,998			2,941	5,939
SrvCo Gen Support	5,895	11,893			24,509	42,297
SrvCo Nuclear					498	498
SrvCo Other	756	7,259	45,791		614,991	668,798
SrvCo Power Delivery	394	692,889	921,582		1,536,730	3,151,595
US DE International						
Sep 2016						
100 Org Effectiveness		29,302			20,123	49,426
110 Central Progs Svcs	2	104,014		3,362	193,163	300,540
110 Regional Svcs		550,342	334		37,049	587,726
CE Commercial Power		47,992			50,274	98,266
Corporate Governance DiscOps	61,481	103,410	13,029		146,001	323,920
DE Renewables & Transmission		170			735	905
DEC Central Programs Services		32,649			49,317	81,966
DEC Coal Combustion Products		108,217	(46)		7,286	115,457
DEC Customer	0	3,254			273,303	276,557
DEC Customer Experience		1,312			26,780	28,092

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DEC Environmental				350				209	560
DEC Fleet Maint Svcs								39,075	39,075
DEC Fossil Hydro				498				7,797	8,295
DEC Gen Ops Support				23,369				7,603	30,972
DEC Nuclear				237				2,456	2,696
DEC Org Effectiveness				2				17,826	17,826
DEC Other				380				139,719	140,099
DEC Other Misc				5,315				121,121	126,437
DEC Power Delivery				13,012		1,464		168,988	183,464
DEC President & Staff				(0)				12,418	12,418
DEC Rates								28	28
DEC Wholesale Pwr & Rnwable Gen				2				34,237	34,239
DEF Central Progs Svcs				2,107				4,036	6,143
DEF Fossil Hydro				471				1,669	2,140
DEF Gen Ops Support				462				0	463
DEF Org Effectiveness				(2)				5,710	5,710
DEF Other				4				2,301	2,303
DEF Other Misc				0				27	27
DEF Power Delivery				5,121				6,329	11,449
DEF Retail				6				5,773	5,779
DEI Central Progs Svcs				11,641				5,009	16,650
DEI Coal Combustion Products				384,622		(1,220)	2,054	6,314	391,770
DEI Customer				0				10,039	10,039
DEI Fossil Hydro				0				2,348	2,348
DEI Org Effectiveness				0				3,697	3,697
DEI Other				0				28,749	28,749
DEI Power Delivery				856				616	1,472
DEK Customer				(188,347)		(172,051)		292,420	292,420
DEK Fossil				1,254				4,106,843	3,746,445
DEK Gas				0				965	2,219
DEK Other				0				0	0
DEK Power Delivery				57		(1,720,377)	538	2,092,931	2,930,913
DEP Central Progs Svcs				2,446				9,192	11,637
DEP Coal Combustion Products				904				904	904
DEP Environmental				0				14	14
DEP Fleet Maint Svcs				1				3,491	3,491
DEP Fossil Hydro				2,853				1,032	1,033
DEP Gen Ops Support								15,963	18,815
DEP Nuclear								1,887	1,887
DEP Org Effectiveness								12,945	12,945
DEP Other				0				74,477	74,477
DEP Power Delivery				7,734				35,916	43,651
DEP Regional Svcs								124	124
DEP Retail				71				38,692	38,762
Duke Energy Ohio - RU				100,483		23,924		298,300	422,708
Marketing & Customer Engagemen				1,128				23,261	24,389
SrvCo Coal Combustion Products				39,082				31,367	70,449
SrvCo Comm Power Other				23,478				3,561	3,561
SrvCo Construct & Proj Mgmt				74,598		11,155		21,359	44,837
SrvCo Customer Service				316,460		274,651	1,580	1,117,737	1,203,490
SrvCo Enterprise Business Svs				670,135		31,177	4,455	1,815,354	3,078,180
SrvCo EnviroHealthSafety				52				249,837	362,815
SrvCo Fossil Hydro Total				52,436				2,306,022	2,358,458
SrvCo Gas				3,756				6,404	10,160

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SrvCo Gen Support	5,896	14,155		26,766	46,817
SrvCo Nuclear				553	553
SrvCo Other	815	10,806	51,044	693,151	755,816
SrvCo Power Delivery	394	822,951	1,056,888	1,738,879	3,619,111
US DE International				2	2
Q4 2016					
Oct 2016					
100 Org Effectiveness		29,302		22,101	51,404
110 Central Progs Svcs	2	117,848	3,362	210,549	331,760
110 Regional Svcs		595,278	334	39,457	635,069
CE Commercial Power		49,235		50,274	99,510
Corporate Governance DiscOps	67,516	117,687	14,735	174,705	374,643
DE Renewables & Transmission		170		754	924
DEC Central Programs Services		36,567		54,731	91,298
DEC Coal Combustion Products		118,704	(46)	7,593	126,252
DEC Customer	0	3,278		300,176	303,454
DEC Customer Experience		1,440		29,935	31,375
DEC Environmental		432		346	778
DEC Fleet Maint Svcs		498		39,973	39,973
DEC Fossil Hydro		25,627	1,025	9,177	9,675
DEC Gen Ops Support	3	237		8,107	34,758
DEC Nuclear				2,483	2,723
DEC Org Effectiveness		395		19,138	19,138
DEC Other		7,525		158,154	158,550
DEC Other Misc				127,910	135,435
DEC Power Delivery	(0)	14,375	1,467	187,196	203,038
DEC President & Staff				13,783	13,783
DEC Rates				28	28
DEC Regional Svcs				53	53
DEC Wholesale Pwr & Rnwable Gen		2		38,989	38,991
DEF Central Progs Svcs		2,239		4,305	6,544
DEF Fossil Hydro		471		1,903	2,374
DEF Gen Ops Support		462		0	463
DEF Org Effectiveness		(2)		6,125	6,125
DEF Other	3			4,257	4,258
DEF Other Misc				35	35
DEF Power Delivery	0	5,437		7,250	12,687
DEF Retail		6		5,402	5,408
DEI Central Progs Svcs		13,144		5,605	18,749
DEI Coal Combustion Products		491,069	(1,220)	7,184	499,088
DEI Customer				10,872	10,872
DEI Fossil Hydro		0		2,348	2,348
DEI Org Effectiveness				5,593	5,593
DEI Other				29,213	29,213
DEI Power Delivery	0	954		606	1,560
DEK Customer		(201,819)	(190,547)	322,077	322,077
DEK Fossil		1,381		4,515,076	4,122,710
DEK Gas				1,253	2,633
DEK Other		0		0	0
DEK Power Delivery	57	2,892,876	(1,970,412)	2,281,908	3,204,967
DEP Central Progs Svcs		2,784		10,048	12,832
DEP Coal Combustion Products		904			904
DEP Environmental		0		14	14
DEP Fleet Maint Svcs				4,260	4,260

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DEP Fossil Hydro					1,197	1,197			
DEP Gen Ops Support	1	3,242			17,637	20,880			
DEP Nuclear					1,887	1,887			
DEP Org Effectiveness					13,561	13,561			
DEP Other					82,686	82,686			
DEP Power Delivery	0	8,684			39,634	48,318			
DEP Regional Svcs					124	124			
DEP Retail					43,519	43,594			
Duke Energy Ohio - RU	76				330,935	474,608			
Marketing & Customer Engagemen			26,704		25,621	26,938			
Piedmont Gas - Other		1,316			194	194			
Svco Coal Combustion Products		43,683			34,646	78,329			
Svco Comm Power Other					3,561	3,561			
SvCo Construct & Proj Mgmt		26,152			23,712	49,864			
Svco Customer Service		83,727	11,461		1,245,696	1,340,884			
SvCo Enterprise Business Svs		353,553	301,827	1,580	2,001,758	3,395,853			
SvCo EnviroHealthSafety	737,136				278,997	406,451			
SvCo Fossil Hydro Total	57	85,826	37,117	4,455	2,532,003	2,597,763			
SvCo Gas		65,761			8,607	12,757			
SvCo Gen Support	5,897	4,149			29,054	51,569			
SvCo Nuclear		16,617			613	613			
SvCo Other	877	14,833	56,865		767,544	840,119			
SvCo Power Delivery	394	939,443	1,186,333		1,896,706	4,022,876			
US DE International									2
Nov 2016									
100 Org Effectiveness		29,330							
110 Central Progs Svcs	2	131,600		3,362	24,039	53,370			
110 Regional Svcs		638,006	334		229,384	364,348			
CE Commercial Power		49,926			43,742	682,083			
Corporate Governance DiscOps					50,274	100,201			
DE Renewables & Transmission	72,950	129,043	15,931		201,699	419,623			
DEC Central Programs Services		170			768	938			
DEC Coal Combustion Products		39,923			60,036	99,959			
DEC Customer	0	127,482		(46)	7,845	135,281			
DEC Customer Experience		3,278			325,030	328,308			
DEC Environmental		1,565			32,527	34,092			
DEC Fleet Maint Svcs		490			469	959			
DEC Fossil Hydro		498			41,248	41,248			
DEC Gen Ops Support		27,727	1,817		12,335	12,833			
DEC Nuclear	3	237			8,571	38,114			
DEC Org Effectiveness					2,522	2,762			
DEC Other		479			20,638	20,638			
DEC Other Misc					175,830	176,309			
DEC Power Delivery		10,667			134,127	144,794			
DEC President & Staff	(0)	17,314	1,467		204,173	222,954			
DEC Rates					15,110	15,110			
DEC Regional Svcs					28	28			
DEC Wholesale Pwr & Rnwable Gen	2				53	53			
DEF Central Progs Svcs		2,421			42,754	42,757			
DEF Fossil Hydro	471				4,668	7,089			
DEF Gen Ops Support	462				1,903	2,374			
DEF Org Effectiveness					0	463			
DEF Other					6,691	6,691			
DEF Other Misc	1	(2)			5,980	5,980			
									45

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DEF Power Delivery	0	5,715	198	5,146	11,059
DEF Regional Svcs				13	13
DEF Retail		13		5,405	5,418
DEI Central Progs Svcs		14,438		6,116	20,554
DEI Coal Combustion Products		541,800	(1,220)	7,939	550,574
DEI Customer			2,054	11,525	11,525
DEI Fossil Hydro		0		2,360	2,360
DEI Org Effectiveness				5,668	5,668
DEI Other				29,647	29,647
DEI Power Delivery	0	1,033		775	1,808
DEK Customer				351,178	351,178
DEK Fossil		(525,463)	(206,228)	4,934,848	4,203,156
DEK Gas		1,491		1,702	3,193
DEK Other		0			0
DEK Power Delivery		3,206,846	(2,183,225)	2,448,278	3,472,494
DEP Central Progs Svcs		3,107		11,003	14,110
DEP Coal Combustion Products		904			904
DEP Environmental		0		47	47
DEP Fleet Maint Svcs				5,060	5,060
DEP Fossil Hydro		1		1,197	1,198
DEP Gen Ops Support		3,576		18,991	22,567
DEP Nuclear				2,162	2,162
DEP Org Effectiveness				14,215	14,215
DEP Other				90,264	90,264
DEP Power Delivery	0	9,449		43,362	52,810
DEP Regional Svcs				249	249
DEP Retail				48,286	48,286
Duke Energy Ohio - RU		150,760	33,034	353,660	537,455
Marketing & Customer Engagemen		1,316		27,856	29,172
Piedmont Gas - Other				434	434
Srvco Coal Combustion Products		47,522		37,460	84,982
Srvco Comm Power Other				3,561	3,561
Srvco Construct & Proj Mgmt		28,281		25,812	54,092
Srvco Customer Service		92,081	11,745	1,367,173	1,470,999
Srvco Enterprise Business Svs	808,207	394,916	320,397	2,170,758	3,695,858
Srvco EnviroHealthSafety	62	95,065	43,086	308,594	451,262
Srvco Fossil Hydro Total		79,179		2,720,056	2,799,235
Srvco Gas		4,340		8,780	13,120
Srvco Gen Support	5,947	18,683		31,409	56,039
Srvco Nuclear				842	842
Srvco Other	987	18,444	57,488	842,251	919,170
Srvco Power Delivery	394	1,051,496	1,306,453	2,043,179	4,401,522
US DE International					
Dec 2016					
100 Org Effectiveness		29,340		25,213	54,553
110 Central Progs Svcs	2	138,121	3,362	243,335	384,820
110 Regional Svcs		676,342	334	52,722	729,398
CE Commercial Power		50,600		50,274	100,874
Corporate Governance DiscOps	77,312	138,199	16,776	222,072	454,360
DE Renewables & Transmission		170		787	958
DEC Central Programs Services		42,616		64,316	106,932
DEC Coal Combustion Products		134,765	(46)	7,952	142,671
DEC Customer	0	3,297		361,817	365,114
DEC Customer Experience		1,635		34,562	36,197

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DEC Environmental				538				1,094
DEC Fleet Maint Svcs				52,058				52,058
DEC Fossil Hydro				13,062				13,560
DEC Gen Ops Support			2,423	8,943				40,733
DEC Nuclear				2,527				2,767
DEC Org Effectiveness				21,849				21,871
DEC Other				193,758				194,339
DEC Other Misc				140,026				152,902
DEC Power Delivery				220,092				239,987
DEC President & Staff			1,467	16,013				16,013
DEC Rates				28				28
DEC Regional Svcs				53				53
DEC Wholesale Pwr & Rnwable Gen				45,895				45,897
DEF Central Progs Svcs				5,142				7,813
DEF Fossil Hydro				1,925				2,396
DEF Gen Ops Support				0				463
DEF Org Effectiveness				7,053				7,053
DEF Other				7,517				7,517
DEF Other Misc				51				51
DEF Power Delivery			198	6,151				12,391
DEF Regional Svcs				13				13
DEF Retail				5,798				5,811
DEI Central Progs Svcs				6,504				21,978
DEI Coal Combustion Products			(1,220)	8,747		2,054		587,644
DEI Customer				12,274				12,274
DEI Fossil Hydro				2,362				2,362
DEI Org Effectiveness				5,668				5,668
DEI Other				30,004				30,004
DEI Power Delivery				898				2,052
DEK Customer				379,036				379,036
DEK Fossil			(221,779)	5,340,902				4,589,169
DEK Gas				1,952				3,555
DEK Other				0				0
DEK Power Delivery				2,627,976				3,708,010
DEP Central Progs Svcs				11,694				15,026
DEP Coal Combustion Products				904				904
DEP Environmental				47				47
DEP Fleet Maint Svcs				5,678				5,678
DEP Fossil Hydro				1,233				1,329
DEP Gen Ops Support				20,152				24,015
DEP Nuclear				2,435				2,435
DEP Org Effectiveness				14,764				14,764
DEP Other				96,218				96,218
DEP Power Delivery				46,559				56,800
DEP Regional Svcs				357				357
DEP Retail				52,035				52,111
Duke Energy Ohio - RU				374,973				584,714
Marketing & Customer Engagemen			35,257	29,711				31,027
Piedmont Gas - Other				651				651
Service Company Alloc Offsets				(1)				(1)
Srvco Coal Combustion Products				39,807				90,850
Srvco Comm Power Other				3,561				3,561
Srvco Construct & Proj Mgmt			552	27,213				57,395
Srvco Customer Service			14,810	1,470,363				1,583,181

Actual - 12 months ending December 2016

See second query for department detail

SrvCo Enterprise Business Svs	873,888	418,788	334,328	1,769	2,315,698	3,944,470
SrvCo EnviroHealthSafety	68	103,206	59,153	4,455	328,823	495,704
SrvCo Fossil Hydro Total		89,438			2,910,112	2,999,550
SrvCo Gas		4,430			8,910	13,340
SrvCo Gen Support	9,196	20,724			33,343	63,264
SrvCo Nuclear					1,048	1,048
SrvCo Other	1,070	21,389	59,867		908,352	990,679
SrvCo Power Delivery	394	1,154,013	1,404,719		2,168,797	4,727,924
US DE International					2	2
Grand Total	961,992	7,113,207	(788,249)	12,131	21,100,401	28,399,483

Actual Headcount by Month and Year for DEK Pay Company

Headcount at Month End. Only full time employees, includes temps

Year	Level 4 Dept	Month														
		1	2	3	4	5	6	7	8	9	10	11	12			
2016	Distb, Cust Ops & DE Carolina												125	74	74	72
	Gas Operations													48	48	46
	Generation & Transmission	72	72	72	73	73	67	67	66	64				66	68	67
	Mkt Solutions Carolinas Region	18	18	18	18	18	18	18	19							
	MW & FL Regions	101	103	101	100	100	96	101	107							
2016 Total		191	193	191	191	181	186	192	189	188	190	195	198	204	207	
2017	Distb, Cust Ops & DE Carolina	74	74	73	72	83	81	82	85	85	86	86	85	85	85	85
	Gas Operations	47	47	48	48	48	48	48	46	48	47	47	48	48	47	48
	Generation & Transmission	67	71	71	71	71	70	71	71	71	70	71	71	70	71	74
2017 Total		188	192	192	191	202	199	201	202	202	204	204	204	204	207	
2018	Distb, Cust Ops & DE Carolina	86	84	83	81	80	78	77	81	81	80	79	79	73	74	74
	Gas Operations	48	48	48	48	48	47	49	48	48	47	46	46	49	48	48
	Generation & Transmission	73	73	72	75	73	73	73	73	73	73	73	73	73	73	73
2018 Total		207	205	203	204	201	198	199	202	202	200	198	198	195	195	
2019	Distb, Cust Ops & DE Carolina	61	58	55	58	58	57	56	56	57	57	57	57	57	57	57
	Gas Operations	47	46	44	46	46	47	48	48	47	48	48	48	48	48	48
	Generation & Transmission	73	73	73	71	71	71	71	71	71	71	71	71	71	70	70
2019 Total		181	177	172	175	175	175	175	175	175	175	175	175	175	175	

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-043

REQUEST:

Provide a schedule of FTEs and payroll dollars separated between expense, capital, and other, for DEBS by department and by month for 2016, 2017, 2018, budgeted in each month 2019, actual in each month 2019 for which actual information is available, and budgeted in each month 2020.

RESPONSE:

Payroll Dollars:

See AG-DR-01-043 Attachment 1 for dollars separated between expense, capital, and other, for DEBS by department and by month for the periods requested.

Actual Headcounts:

See AG-DR-01-043 Attachment 2 for actual headcounts by month by department for 2016 – September 2019.

Budgeted Headcounts:

The Company does not budget headcount.

PERSON RESPONSIBLE: Renee H. Metzler

Payroll Labor Costs (Budgeted 2020) - F				
	Expense	Capital	Other deferred	Total
January	\$ 38,648,515	\$ 14,344,872	\$ 3,161,944	\$ 56,155,331
February	24,840,209	3,620,937	2,995,403	31,456,549
March	25,757,771	3,736,106	3,078,805	32,572,682
April	25,584,569	3,797,105	3,007,532	32,389,205
May	25,628,763	3,819,758	3,024,716	32,473,237
June	25,557,211	3,876,347	3,023,116	32,456,674
July	25,591,824	3,761,312	3,042,744	32,395,880
August	25,712,565	3,721,687	3,120,839	32,555,091
September	26,197,945	3,693,295	3,024,294	32,915,535
October	26,373,065	3,725,546	3,027,473	33,126,083
November	26,441,127	3,707,010	3,009,900	33,158,037
December	28,030,478	3,853,135	3,026,945	34,910,558
Total	\$ 324,364,042	\$ 55,657,110	\$ 36,543,710	\$ 416,564,863

Payroll Labor Costs (Budgeted 2019) - E				
	Expense	Capital	Other deferred	Total
January	\$ 25,732,095	\$ 4,128,670	\$ 2,905,013	\$ 32,765,778
February	25,364,631	4,157,318	2,848,260	32,370,209
March	26,933,489	4,462,627	3,802,119	35,198,235
April	25,991,290	4,315,538	2,890,525	33,197,353
May	25,949,048	4,345,255	2,895,729	33,190,032
June	26,324,056	4,318,047	2,895,746	33,537,849
July	26,246,639	4,284,700	2,895,846	33,427,186
August	26,813,642	4,480,261	3,821,706	35,115,610
September	26,256,649	4,276,535	2,895,671	33,428,855
October	26,392,746	4,358,684	2,918,055	33,669,484
November	26,351,989	4,326,625	2,918,509	33,597,123
December	26,647,397	4,313,383	2,930,635	33,891,415
Total	\$ 315,003,671	\$ 51,767,643	\$ 36,617,814	\$ 403,389,129

Payroll Labor Costs (Actual through Sept 2019) - D				
	Expense	Capital	Other deferred	Total
January	\$ 20,738,790	\$ 1,045,255	\$ 1,760,134	\$ 23,544,179
February	22,620,700	1,140,981	2,328,554	26,090,235
March	23,017,616	1,275,357	3,110,321	27,403,294

April	22,067,906	1,361,966	2,164,375	25,594,247
May	21,024,780	1,489,538	2,318,146	24,832,463
June	22,350,995	1,808,174	1,164,211	25,323,379
July	18,933,979	1,148,814	2,054,080	22,136,873
August	20,963,115	2,226,638	3,110,027	26,299,780
September	18,918,122	1,385,256	2,078,776	22,382,154
October				
November				
December				

Total	\$ 190,636,002	\$ 12,881,980	\$ 20,088,622	\$ 223,606,605
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Payroll Labor Costs (2018) C

	Expense	Capital	Other deferred	Total
January	\$ 20,489,890	\$ 697,883	\$ 1,746,386	\$ 22,934,159
February	22,085,602	816,554	2,171,169	25,073,326
March	23,067,626	920,003	2,883,310	26,870,939
April	23,301,563	867,039	2,078,089	26,246,692
May	22,987,925	943,152	2,114,809	26,045,886
June	23,239,213	1,139,519	1,986,029	26,364,761
July	20,315,796	800,481	1,934,840	23,051,116
August	23,909,842	1,002,998	2,930,072	27,842,911
September	22,499,595	944,781	868,527	24,312,903
October	22,693,522	1,837,439	2,127,169	26,658,131
November	21,342,847	973,515	2,079,752	24,396,114
December	16,889,495	2,600,578	1,289,886	20,779,960

Total	\$ 262,822,916	\$ 13,543,943	\$ 24,210,038	\$ 300,576,897
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Payroll Labor Costs (2017) B

	Expense	Capital	Other deferred	Total
January	\$ 17,666,590	\$ 484,922	\$ 1,645,832	\$ 19,797,344
February	18,629,960	667,758	2,148,751	21,446,470
March	20,515,881	918,929	2,761,982	24,196,792
April	18,808,584	713,077	1,915,351	21,437,012
May	19,211,165	915,286	1,970,738	22,097,189
June	19,700,665	849,369	1,882,268	22,432,302
July	17,278,785	666,529	1,848,500	19,793,814
August	19,216,512	814,822	2,104,606	22,135,940
September	20,289,815	775,165	1,890,546	22,955,527
October	20,497,471	874,751	2,532,935	23,905,156

November	19,583,338	641,307	1,575,011	21,799,656
December	13,119,388	1,463,647	1,602,612	16,185,648
Total	\$ 224,518,156	\$ 9,785,563	\$ 23,879,133	\$ 258,182,852

	Payroll Labor Costs (2016) A			
	Expense	Capital	Other deferred	Total
January	\$ 20,270,196	\$ 666,238	\$ 1,643,792	\$ 22,580,226
February	21,011,865	573,030	2,075,164	23,660,058
March	20,712,298	598,680	1,886,889	23,197,868
April	20,105,431	632,877	2,711,056	23,449,363
May	18,063,777	507,218	2,011,345	20,582,340
June	18,360,616	530,389	1,888,520	20,779,525
July	17,247,203	545,531	1,828,594	19,621,328
August	19,035,636	759,985	1,538,208	21,333,829
September	19,166,432	552,726	2,704,783	22,423,940
October	19,961,743	639,734	1,979,535	22,581,012
November	18,802,241	531,124	1,921,048	21,254,414
December	14,102,084	459,202	1,222,003	15,783,289
Total	\$ 226,839,523	\$ 6,996,734	\$ 23,410,934	\$ 257,247,191

- A** See 12ME DEC 2016 tab for department detail, by month.
- B** See 12ME DEC 2017 tab for department detail, by month.
- C** See 12ME DEC 2018 tab for department detail, by month.
- D** See 9ME SEP 2019 tab for department detail, by month.
- E** See 2019 (Budget) tab for department detail, by month.
- F** See 2020 (Budget) tab for department detail, by month.

Budget - 2020

See second query for department detail

Business Unit Hierarchy		Duke Energy Kentucky Electric		
	ASSET - Assets	CAPITAL - Capital	O&M and Other Expenses	Grand Total
Q1 2020				
Jan 2020	\$ 3,161,943.84	\$ 14,344,871.74	\$ 38,648,515.26	\$ 56,155,330.84
Feb 2020	2,995,402.87	3,620,937.46	24,840,208.61	31,456,548.94
Mar 2020	3,078,804.96	3,736,106.00	25,757,771.25	32,572,682.20
Q2 2020				
Apr 2020	3,007,531.58	3,797,105.02	25,584,568.61	32,389,205.21
May 2020	3,024,716.48	3,819,757.55	25,628,762.96	32,473,236.99
Jun 2020	3,023,115.65	3,876,347.27	25,557,211.49	32,456,674.41
Q3 2020				
Jul 2020	3,042,744.17	3,761,312.27	25,591,823.73	32,395,880.17
Aug 2020	3,120,839.02	3,721,686.67	25,712,565.08	32,555,090.77
Sep 2020	3,024,293.98	3,693,295.38	26,197,945.29	32,915,534.65
Q4 2020				
Oct 2020	3,027,472.68	3,725,545.59	26,373,064.83	33,126,083.10
Nov 2020	3,009,900.07	3,707,010.20	26,441,126.93	33,158,037.20
Dec 2020	3,026,945.05	3,853,135.23	28,030,477.80	34,910,558.08
Grand Total	\$ 36,543,710.33	\$ 55,657,110.39	\$ 324,364,041.84	\$ 416,564,862.56

Business Unit Hierarchy		Duke Energy Kentucky Electric		
	ASSET - Assets	CAPITAL - Capital	O&M and Other Expenses	Grand Total
Q1 2020				
Jan 2020				
Administrative Services	\$ 41,350.00	\$ 1,648.02	\$ 762,146.05	\$ 805,144.07
Business Transformation&Techn	258,256.28	14,124,578.54	21,776,541.31	36,159,376.12
Chairman & CEO			542,230.27	542,230.27
Corporate Accounts			(96,986.80)	(96,986.80)
Cust & Delivery Ops	2,587,448.36	16,646.92	1,247,157.29	3,851,252.58
Energy Solutions		15,241.50	1,686,673.62	1,701,915.12
Enterprise Security	17,429.38	131,743.23	1,883,035.33	2,032,207.94
Ext Affrs & Strtgc Policy			931,823.75	931,823.75
FINANCE		37,033.34	1,998,171.07	2,035,204.41
GENERAL COUNSEL			1,290,429.43	1,290,429.43
HR			2,041,548.80	2,041,548.80
REGULATED GENERATION	257,459.82	17,980.19	4,585,745.15	4,861,185.16
Feb 2020				
Administrative Services	41,350.00	1,648.02	740,287.22	783,285.24
Business Transformation&Techn	92,850.74	3,400,644.26	8,205,384.96	11,698,879.96
Chairman & CEO			542,230.27	542,230.27
Corporate Accounts			(96,986.80)	(96,986.80)
Cust & Delivery Ops	2,587,448.36	16,646.92	1,187,713.70	3,791,808.98
Energy Solutions		15,241.50	1,639,106.97	1,654,348.48
Enterprise Security	17,429.38	131,743.23	1,883,035.33	2,032,207.94
Ext Affrs & Strtgc Policy			916,998.75	916,998.75
FINANCE		37,033.34	1,998,171.07	2,035,204.41
GENERAL COUNSEL			1,238,225.23	1,238,225.23
HR			2,041,548.48	2,041,548.48
REGULATED GENERATION	256,324.39	17,980.19	4,544,493.43	4,818,798.01
Mar 2020				
Administrative Services	42,797.25	1,705.70	809,809.91	854,312.86
Business Transformation&Techn	96,667.76	3,509,863.79	8,527,962.31	12,134,493.86
Chairman & CEO			577,689.17	577,689.17
Corporate Accounts			(96,986.80)	(96,986.80)
Cust & Delivery Ops	2,587,951.55	16,646.92	1,238,540.63	3,843,139.10
Energy Solutions		15,774.96	1,569,927.10	1,585,702.05
Enterprise Security	18,350.94	135,175.62	1,977,339.85	2,130,866.41
Ext Affrs & Strtgc Policy			949,716.61	949,716.61

FINANCE		38,329.51	2,098,850.65	2,137,180.16
GENERAL COUNSEL			1,333,770.52	1,333,770.52
HR			2,100,558.59	2,100,558.59
REGULATED GENERATION	333,037.46	18,609.50	4,670,592.71	5,022,239.66
Q2 2020				
Apr 2020				
Administrative Services	42,797.25	1,705.70	772,607.04	817,110.00
Business Transformation&Techn	97,266.92	3,572,157.81	8,576,885.84	12,246,310.57
Chairman & CEO			577,689.17	577,689.17
Corporate Accounts			(96,986.80)	(96,986.80)
Cust & Delivery Ops	2,587,951.55	16,646.92	1,229,283.93	3,833,882.40
Energy Solutions		15,774.96	1,567,308.94	1,583,083.89
Enterprise Security	17,975.65	133,880.63	1,942,382.03	2,094,238.31
Ext Affrs & Strtgc Policy			949,716.61	949,716.61
FINANCE		38,329.51	2,098,850.65	2,137,180.16
GENERAL COUNSEL			1,279,850.77	1,279,850.77
HR			2,100,558.59	2,100,558.59
REGULATED GENERATION	261,540.21	18,609.50	4,586,421.83	4,866,571.53
May 2020				
Administrative Services	42,797.25	1,705.70	772,607.04	817,110.00
Business Transformation&Techn	96,961.57	3,594,810.34	8,585,895.95	12,277,667.86
Chairman & CEO			577,689.17	577,689.17
Corporate Accounts			(96,986.80)	(96,986.80)
Cust & Delivery Ops	2,587,951.55	16,646.92	1,229,283.93	3,833,882.40
Energy Solutions		15,774.96	1,589,305.26	1,605,080.22
Enterprise Security	17,975.65	133,880.63	1,942,382.03	2,094,238.31
Ext Affrs & Strtgc Policy			949,716.61	949,716.61
FINANCE		38,329.51	2,098,850.65	2,137,180.16
GENERAL COUNSEL			1,282,504.61	1,282,504.61
HR			2,100,558.59	2,100,558.59
REGULATED GENERATION	279,030.46	18,609.50	4,596,955.91	4,894,595.86
Jun 2020				
Administrative Services	42,797.25	1,705.70	794,207.04	838,710.00
Business Transformation&Techn	95,384.09	3,651,400.06	8,435,107.93	12,181,892.08
Chairman & CEO			577,689.17	577,689.17
Corporate Accounts			(96,986.80)	(96,986.80)
Cust & Delivery Ops	2,587,951.55	16,646.92	1,229,283.93	3,833,882.40
Energy Solutions		15,774.96	1,656,179.62	1,671,954.57
Enterprise Security	17,975.65	133,880.63	1,942,382.03	2,094,238.31
Ext Affrs & Strtgc Policy			949,716.61	949,716.61
FINANCE		38,329.51	2,098,850.65	2,137,180.16
GENERAL COUNSEL			1,279,850.77	1,279,850.77
HR			2,100,558.59	2,100,558.59
REGULATED GENERATION	279,007.11	18,609.50	4,590,371.94	4,887,988.55
Q3 2020				
Jul 2020				
Administrative Services	42,797.25	1,705.70	815,018.27	859,521.22
Business Transformation&Techn	97,212.61	3,536,365.06	8,563,970.10	12,197,547.77
Chairman & CEO			577,689.17	577,689.17
Corporate Accounts			(96,986.80)	(96,986.80)
Cust & Delivery Ops	2,587,951.55	16,646.92	1,283,489.41	3,888,087.88
Energy Solutions		15,774.96	1,458,374.75	1,474,149.70
Enterprise Security	17,975.65	133,880.63	1,942,382.03	2,094,238.31
Ext Affrs & Strtgc Policy			965,060.48	965,060.48
FINANCE		38,329.51	2,098,850.65	2,137,180.16
GENERAL COUNSEL			1,333,770.52	1,333,770.52
HR			2,100,558.59	2,100,558.59
REGULATED GENERATION	296,807.11	18,609.50	4,549,646.55	4,865,063.16
Aug 2020				
Administrative Services	42,797.25	1,705.70	794,207.04	838,710.00
Business Transformation&Techn	97,825.45	3,495,444.47	8,614,393.81	12,207,663.73
Chairman & CEO			577,689.17	577,689.17
Corporate Accounts			(96,986.80)	(96,986.80)
Cust & Delivery Ops	2,587,951.55	16,646.92	1,244,965.70	3,849,564.17
Energy Solutions		15,774.96	1,566,950.32	1,582,725.27
Enterprise Security	18,350.94	135,175.62	1,977,339.85	2,130,866.41

Ext Affrs & Strtgc Policy			949,716.61	949,716.61
FINANCE	38,329.51		2,098,850.65	2,137,180.16
GENERAL COUNSEL			1,279,850.77	1,279,850.77
HR			2,100,558.59	2,100,558.59
REGULATED GENERATION	373,913.83	18,609.50	4,605,029.35	4,997,552.67
Sep 2020				
Administrative Services	42,797.25	1,705.70	811,218.77	855,721.72
Business Transformation&Techn	96,755.43	3,468,348.17	8,540,115.24	12,105,218.84
Chairman & CEO			577,689.17	577,689.17
Corporate Accounts			(96,986.80)	(96,986.80)
Cust & Delivery Ops	2,587,951.55	16,646.92	1,229,283.93	3,833,882.40
Energy Solutions		15,774.96	2,218,367.36	2,234,142.31
Enterprise Security	17,975.65	133,880.63	1,942,382.03	2,094,238.31
Ext Affrs & Strtgc Policy			949,716.61	949,716.61
FINANCE	38,329.51		2,098,850.65	2,137,180.16
GENERAL COUNSEL			1,282,504.61	1,282,504.61
HR			2,100,558.59	2,100,558.59
REGULATED GENERATION	278,814.10	18,609.50	4,544,245.13	4,841,668.72
Q4 2020				
Oct 2020				
Administrative Services	42,797.25	1,705.70	772,607.04	817,110.00
Business Transformation&Techn	99,934.13	3,500,598.38	8,802,312.87	12,402,845.38
Chairman & CEO			577,689.17	577,689.17
Corporate Accounts			(96,986.80)	(96,986.80)
Cust & Delivery Ops	2,587,951.55	16,646.92	1,229,283.93	3,833,882.40
Energy Solutions		15,774.96	2,173,489.33	2,189,264.28
Enterprise Security	17,975.65	133,880.63	1,942,382.03	2,094,238.31
Ext Affrs & Strtgc Policy			949,716.61	949,716.61
FINANCE	38,329.51		2,098,850.65	2,137,180.16
GENERAL COUNSEL			1,279,850.77	1,279,850.77
HR			2,100,558.59	2,100,558.59
REGULATED GENERATION	278,814.10	18,609.50	4,543,310.63	4,840,734.22
Nov 2020				
Administrative Services	42,797.25	1,705.70	772,607.04	817,110.00
Business Transformation&Techn	100,179.29	3,482,062.98	8,822,693.52	12,404,935.79
Chairman & CEO			577,689.17	577,689.17
Corporate Accounts			(96,986.80)	(96,986.80)
Cust & Delivery Ops	2,587,951.55	16,646.92	1,229,283.93	3,833,882.40
Energy Solutions		15,774.96	2,215,387.10	2,231,162.05
Enterprise Security	17,975.65	133,880.63	1,942,382.03	2,094,238.31
Ext Affrs & Strtgc Policy			949,716.61	949,716.61
FINANCE	38,329.51		2,098,850.65	2,137,180.16
GENERAL COUNSEL			1,279,850.77	1,279,850.77
HR			2,100,558.59	2,100,558.59
REGULATED GENERATION	260,996.33	18,609.50	4,549,094.32	4,828,700.14
Dec 2020				
Administrative Services	42,797.25	1,705.70	793,418.23	837,921.18
Business Transformation&Techn	117,247.63	3,628,188.01	10,221,711.12	13,967,146.76
Chairman & CEO			577,689.17	577,689.17
Corporate Accounts			(96,986.80)	(96,986.80)
Cust & Delivery Ops	2,587,951.55	16,646.92	1,283,500.41	3,888,098.88
Energy Solutions		15,774.96	2,265,502.34	2,281,277.30
Enterprise Security	17,975.65	133,880.63	1,942,382.03	2,094,238.31
Ext Affrs & Strtgc Policy			965,060.48	965,060.48
FINANCE	38,329.51		2,098,845.65	2,137,175.16
GENERAL COUNSEL			1,333,770.52	1,333,770.52
HR			2,100,558.59	2,100,558.59
REGULATED GENERATION	260,972.97	18,609.50	4,545,026.06	4,824,608.52
Grand Total	\$ 36,543,710.33	\$ 55,657,110.39	\$ 324,364,041.84	\$ 416,564,862.56

Budget - 2019

See second query for department detail

Business Unit Hierarchy		Duke Energy Kentucky Electric		
	ASSET - Assets	CAPITAL - Capital	O&M and Other Expenses	Grand Total
Q1 2019				
Jan 2019	\$ 2,905,013.03	\$ 4,128,670.25	\$ 25,732,094.86	\$ 32,765,778.14
Feb 2019	2,848,260.10	4,157,318.07	25,364,630.78	32,370,208.96
Mar 2019	3,802,119.38	4,462,627.43	26,933,488.57	35,198,235.38
Q2 2019				
Apr 2019	2,890,525.22	4,315,537.52	25,991,289.77	33,197,352.51
May 2019	2,895,728.59	4,345,255.05	25,949,048.38	33,190,032.03
Jun 2019	2,895,745.76	4,318,046.61	26,324,056.35	33,537,848.73
Q3 2019				
Jul 2019	2,895,846.49	4,284,700.28	26,246,639.07	33,427,185.84
Aug 2019	3,821,706.40	4,480,260.76	26,813,642.46	35,115,609.62
Sep 2019	2,895,671.16	4,276,534.66	26,256,649.08	33,428,854.90
Q4 2019				
Oct 2019	2,918,054.90	4,358,683.52	26,392,745.90	33,669,484.32
Nov 2019	2,918,508.85	4,326,625.32	26,351,989.18	33,597,123.35
Dec 2019	2,930,634.55	4,313,383.43	26,647,396.90	33,891,414.88
Grand Total	\$ 36,617,814.41	\$ 51,767,642.95	\$ 315,003,671.30	\$ 403,389,128.66

Business Unit Hierarchy		Duke Energy Kentucky Electric		
	ASSET - Assets	CAPITAL - Capital	O&M and Other Expenses	Grand Total
Q1 2019				
Jan 2019				
Administrative Services	\$ 39,952.00	\$ 1,592.29	\$ 707,520.91	\$ 749,065.20
Business Transformation&Techn	104,060.47	3,904,757.54	9,464,552.04	13,473,370.06
Chairman & CEO			493,443.37	493,443.37
Corporate Accounts			11,730.61	11,730.61
Cust & Delivery Ops	2,467,070.16	16,175.15	1,547,576.45	4,030,821.76
Energy Solutions		23,115.95	1,557,704.40	1,580,820.36
Enterprise Security	17,429.38	131,743.23	1,883,035.33	2,032,207.94
Ext Affrs & Strtgc Policy			887,011.55	887,011.55
FINANCE		33,305.89	2,453,703.86	2,487,009.76
GENERAL COUNSEL			1,210,719.40	1,210,719.40
HR			1,871,071.92	1,871,071.92
Natural Gas Operations			7,611.12	7,611.12
REGULATED GENERATION	276,501.02	17,980.19	3,636,413.90	3,930,895.11
Feb 2019				
Administrative Services	39,952.00	1,592.29	703,925.88	745,470.17
Business Transformation&Techn	103,826.45	3,933,405.36	9,262,324.18	13,299,555.99
Chairman & CEO			493,443.37	493,443.37
Corporate Accounts			11,730.61	11,730.61
Cust & Delivery Ops	2,411,686.68	16,175.15	1,537,685.11	3,965,546.95
Energy Solutions		23,115.95	1,455,733.88	1,478,849.84
Enterprise Security	17,429.38	131,743.23	1,883,035.33	2,032,207.94
Ext Affrs & Strtgc Policy			887,011.55	887,011.55
FINANCE		33,305.89	2,460,578.86	2,493,884.76
GENERAL COUNSEL			1,210,719.40	1,210,719.40
HR			1,855,093.08	1,855,093.08
Natural Gas Operations			7,611.12	7,611.12

REGULATED GENERATION	275,365.59	17,980.19	3,595,738.41	3,889,084.19
Mar 2019				
Administrative Services	41,350.00	1,648.02	797,248.55	840,246.58
Business Transformation&Techn	111,958.52	4,232,056.33	9,894,579.75	14,238,594.61
Chairman & CEO			542,230.27	542,230.27
Corporate Accounts			11,730.61	11,730.61
Cust & Delivery Ops	3,268,955.66	16,741.22	1,657,614.07	4,943,310.95
Energy Solutions		23,925.00	1,472,827.21	1,496,752.21
Enterprise Security	18,350.94	135,175.62	1,977,339.85	2,130,866.41
Ext Affrs & Strtgc Policy			933,447.95	933,447.95
FINANCE		34,471.74	2,560,156.80	2,594,628.54
GENERAL COUNSEL			1,310,738.15	1,310,738.15
HR			1,994,644.54	1,994,644.54
Natural Gas Operations			7,877.50	7,877.50
REGULATED GENERATION	361,504.26	18,609.50	3,773,053.31	4,153,167.06
Q2 2019				
Apr 2019				
Administrative Services	41,350.00	1,648.02	735,340.14	778,338.16
Business Transformation&Techn	105,871.40	4,086,261.41	9,308,187.10	13,500,319.92
Chairman & CEO			542,230.27	542,230.27
Corporate Accounts			11,730.61	11,730.61
Cust & Delivery Ops	2,444,746.77	16,741.22	1,591,007.77	4,052,495.76
Energy Solutions		23,925.00	1,458,609.32	1,482,534.32
Enterprise Security	17,975.65	133,880.63	1,942,382.03	2,094,238.31
Ext Affrs & Strtgc Policy			918,622.95	918,622.95
FINANCE		34,471.74	2,557,259.75	2,591,731.49
GENERAL COUNSEL			1,253,340.15	1,253,340.15
HR			1,994,644.54	1,994,644.54
Natural Gas Operations			7,877.50	7,877.50
REGULATED GENERATION	280,581.41	18,609.50	3,670,057.62	3,969,248.52
May 2019				
Administrative Services	41,350.00	1,648.02	735,340.14	778,338.16
Business Transformation&Techn	105,357.60	4,115,978.95	9,263,768.90	13,485,105.45
Chairman & CEO			542,230.27	542,230.27
Corporate Accounts			11,730.61	11,730.61
Cust & Delivery Ops	2,450,803.68	16,741.22	1,591,007.77	4,058,552.68
Energy Solutions		23,925.00	1,515,297.25	1,539,222.25
Enterprise Security	17,975.65	133,880.63	1,942,382.03	2,094,238.31
Ext Affrs & Strtgc Policy			918,622.95	918,622.95
FINANCE		34,471.74	2,557,259.75	2,591,731.49
GENERAL COUNSEL			1,255,993.15	1,255,993.15
HR			1,994,644.54	1,994,644.54
Natural Gas Operations			7,877.50	7,877.50
REGULATED GENERATION	280,241.66	18,609.50	3,612,893.51	3,911,744.66
Jun 2019				
Administrative Services	41,350.00	1,648.02	756,940.14	799,938.16
Business Transformation&Techn	105,398.12	4,088,770.51	9,257,222.98	13,451,391.60
Chairman & CEO			542,230.27	542,230.27
Corporate Accounts			11,730.61	11,730.61
Cust & Delivery Ops	2,450,803.68	16,741.22	1,591,007.77	4,058,552.68
Energy Solutions		23,925.00	1,884,488.11	1,908,413.11
Enterprise Security	17,975.65	133,880.63	1,942,382.03	2,094,238.31
Ext Affrs & Strtgc Policy			918,622.95	918,622.95
FINANCE		34,471.74	2,557,259.75	2,591,731.49
GENERAL COUNSEL			1,253,340.15	1,253,340.15
HR			1,994,644.54	1,994,644.54
Natural Gas Operations			7,877.50	7,877.50
REGULATED GENERATION	280,218.31	18,609.50	3,606,309.54	3,905,137.35

Q3 2019				
Jul 2019				
Administrative Services	41,350.00	1,648.02	756,940.14	799,938.16
Business Transformation&Techn	105,498.85	4,055,424.18	9,264,004.68	13,424,927.71
Chairman & CEO			542,230.27	542,230.27
Corporate Accounts			11,730.61	11,730.61
Cust & Delivery Ops	2,450,803.68	16,741.22	1,591,007.77	4,058,552.68
Energy Solutions		23,925.00	1,839,207.81	1,863,132.81
Enterprise Security	17,975.65	133,880.63	1,942,382.03	2,094,238.31
Ext Affrs & Strtgc Policy			918,622.95	918,622.95
FINANCE		34,471.74	2,557,259.75	2,591,731.49
GENERAL COUNSEL			1,253,340.15	1,253,340.15
HR			1,994,644.54	1,994,644.54
Natural Gas Operations			7,877.50	7,877.50
REGULATED GENERATION	280,218.31	18,609.50	3,567,390.85	3,866,218.66
Aug 2019				
Administrative Services	41,350.00	1,648.02	775,917.03	818,915.05
Business Transformation&Techn	109,856.34	4,249,689.66	9,621,982.17	13,981,528.17
Chairman & CEO			542,230.27	542,230.27
Corporate Accounts			11,730.61	11,730.61
Cust & Delivery Ops	3,285,398.49	16,741.22	1,658,801.03	4,960,940.74
Energy Solutions		23,925.00	1,843,038.97	1,866,963.97
Enterprise Security	18,350.94	135,175.62	1,977,339.85	2,130,866.41
Ext Affrs & Strtgc Policy			933,447.95	933,447.95
FINANCE		34,471.74	2,570,240.14	2,604,711.88
GENERAL COUNSEL			1,253,340.15	1,253,340.15
HR			1,994,644.54	1,994,644.54
Natural Gas Operations			7,877.50	7,877.50
REGULATED GENERATION	366,750.63	18,609.50	3,623,052.26	4,008,412.38
Sep 2019				
Administrative Services	41,350.00	1,648.02	778,456.24	821,454.26
Business Transformation&Techn	105,516.53	4,047,258.55	9,265,120.94	13,417,896.03
Chairman & CEO			542,230.27	542,230.27
Corporate Accounts			11,730.61	11,730.61
Cust & Delivery Ops	2,450,803.68	16,741.22	1,591,007.77	4,058,552.68
Energy Solutions		23,925.00	1,763,659.25	1,787,584.25
Enterprise Security	17,975.65	133,880.63	1,942,382.03	2,094,238.31
Ext Affrs & Strtgc Policy			918,622.95	918,622.95
FINANCE		34,471.74	2,567,343.09	2,601,814.83
GENERAL COUNSEL			1,313,391.15	1,313,391.15
HR			1,994,644.54	1,994,644.54
Natural Gas Operations			7,877.50	7,877.50
REGULATED GENERATION	280,025.30	18,609.50	3,560,182.72	3,858,817.52
Q4 2019				
Administrative Services	124,050.00	4,944.07	2,206,020.38	2,335,014.44
Business Transformation&Techn	324,619.90	12,310,863.95	28,745,388.16	41,380,872.02
Chairman & CEO			1,626,690.81	1,626,690.81
Corporate Accounts			35,191.84	35,191.84
Cust & Delivery Ops	7,422,827.84	50,223.66	4,773,034.32	12,246,085.82
Energy Solutions		71,775.00	5,267,350.89	5,339,125.89
Enterprise Security	53,926.95	401,641.89	5,827,146.09	6,282,714.93
Ext Affrs & Strtgc Policy			2,755,868.85	2,755,868.85
FINANCE		103,415.21	7,702,029.26	7,805,444.48
GENERAL COUNSEL			3,760,020.46	3,760,020.46
HR			5,984,514.63	5,984,514.63
Natural Gas Operations			23,632.50	23,632.50
REGULATED GENERATION	841,773.61	55,828.49	10,685,243.80	11,582,845.90
Grand Total	\$ 36,617,814.41	\$ 51,767,642.95	\$ 315,003,671.30	\$ 403,389,128.66

Actual - 9 months ending September 2019

See second query for department detail

Business Unit Hierarchy	Duke Energy Kentucky Electric				
	ASSET - Assets	CAPITAL - Capital	INDIRECT - Indirect	O&M and Other Expenses	
Q1 2019				Grand Total	
Jan 2019	\$ 1,760,133.64	\$ 1,045,255.03		\$ 20,738,790.03	\$ 23,544,178.70
Feb 2019	4,088,687.35	2,186,236.40		43,359,489.73	49,634,413.48
Mar 2019	7,199,008.06	3,461,593.14		66,377,105.95	77,037,707.15
Q2 2019					
Apr 2019	9,363,382.90	4,823,559.31		88,445,012.35	102,631,954.56
May 2019	11,681,528.44	6,313,097.27		109,469,792.15	127,464,417.86
Jun 2019	12,845,739.02	8,121,271.49		131,820,786.72	152,787,797.23
Q3 2019					
Jul 2019	14,899,819.13	9,270,085.94		150,754,765.52	174,924,670.59
Aug 2019	18,009,846.55	11,496,723.67		171,717,880.44	201,224,450.66
Sep 2019	20,086,612.52	12,881,979.94	2,009.72	190,636,002.43	223,606,604.61
Grand Total	\$ 21,257,033.11	\$ 14,604,718.52	\$ 3,067.64	\$ 201,320,312.32	\$ 237,185,131.59

Business Unit Hierarchy	Duke Energy Kentucky Electric				
	ASSET - Assets	CAPITAL - Capital	INDIRECT - Indirect	O&M and Other Expenses	
Q1 2019				Grand Total	
100 Org Effectiveness				\$ 10,960.91	\$ 10,960.91
110 Central Progs Svcs				501,183.40	501,183.40
110 Regional Svcs				64,915.14	64,915.14
Corporate Governance DiscOps	233.17	5,834.92		(247,603.83)	(241,535.74)
DEC Central Programs Services				29,843.93	29,843.93
DEC Customer	10,662.34	3,985.11		29,275.01	43,922.46

DEC Customer Experience	117.15	1,616.92	19,176.04	20,910.11
DEC Environmental			12,589.12	12,589.12
DEC Fossil Hydro			1,516.53	1,516.53
DEC Nuclear	1,083.75		24,573.13	25,656.88
DEC Org Effectiveness		4,045.68		4,045.68
DEC Other			2,782.00	2,782.00
DEC Other Misc	33.46	5,509.24	2,765.27	8,307.97
DEC Power Delivery	10,985.90	3,865.71	169,739.67	184,591.28
DEC Regional Svcs			8,309.08	8,309.08
DEC Wholesale Pwr & Rnwable Gen	30.92	3,833.88	2,554.96	6,419.76
DEF Other	561.68	558.65	46,049.41	47,169.74
DEF Power Delivery	419.93	0.02	25,038.14	25,458.09
DEF Regional Svcs			7,234.02	7,234.02
DEF Retail			(3,360.00)	(3,360.00)
DEI Power Delivery	574.00		(156,124.63)	(155,550.63)
DEI President and Staff			868.16	868.16
DEP Central Progs Svcs			5,541.03	5,541.03
DEP Fossil Hydro			32,030.57	32,030.57
DEP Power Delivery	67.34	2,409.49	72,169.75	74,646.58
DEP Regional Svcs			1,364.15	1,364.15
DEP Retail			4,995.22	4,995.22
Duke Energy Ohio - RU		(0.01)	(99,506.27)	(99,506.28)
Marketing & Customer Engagemen		(0.02)	3,796.43	3,796.41
Piedmont Gas - Delivery	25.58	1,425.41	10,446.83	11,897.82
Piedmont Gas - Other	22.35		1,941.84	1,964.19
SrvCo Construct & Proj Mgmt	16.09	13,766.68	85,654.80	99,437.57
SrvCo Customer Service	82.46	(0.07)	1,186,658.01	1,186,740.40
SrvCo Enterprise Business Svcs	133,271.07	980,145.35	14,517,815.55	15,631,231.97
SrvCo EnviroHealthSafety	2,179.69	2,050.08	848,820.35	853,050.12
SrvCo Fossil Hydro Total			28,939.31	28,939.31
SrvCo Gas	22.99		2,764.52	2,787.51
SrvCo Gen Support	156,760.96	2,167.05	375,662.21	534,590.22
SrvCo Nuclear			6,413.95	6,413.95

Feb 2019					
SrvCo Other					
SrvCo Power Delivery	2,634.21	11,571.87	1,701,899.32	1,716,105.40	
	1,440,348.60	2,469.07	1,399,097.00	2,841,914.67	
100 Org Effectiveness			32,293.53	32,293.53	
110 Central Progs Svcs			1,028,027.11	1,028,027.11	
110 Regional Svcs			127,670.18	127,670.18	
Corporate Governance DiscOps	462.32	9,340.31	(427,306.31)	(417,503.68)	
DEC Central Programs Services			64,462.08	64,462.08	
DEC Customer	22,558.34	10,767.92	161,974.91	195,301.17	
DEC Customer Experience	239.88	1,972.56	35,286.34	37,498.78	
DEC Environmental			25,452.84	25,452.84	
DEC Fossil Hydro	9.06		20,350.06	20,359.12	
DEC Nuclear	1,358.34		46,434.55	47,792.89	
DEC Org Effectiveness		8,198.34	(5,132.60)	3,065.74	
DEC Other			6,634.00	6,634.00	
DEC Other Misc	63.66	13,091.16	5,260.76	18,415.58	
DEC Power Delivery	18,398.20	9,442.61	403,029.26	430,870.07	
DEC Regional Svcs			16,314.02	16,314.02	
DEC Wholesale Pwr & Rnwable Gen	32.59	3,971.76	2,692.84	6,697.19	
DEF Other	1,601.75	579.88	131,301.47	133,483.10	
DEF Power Delivery	453.72	44.63	69,467.17	69,965.52	
DEF Regional Svcs			15,914.94	15,914.94	
DEF Retail		-	(740.97)	(740.97)	
DEI Power Delivery	574.00		(149,311.34)	(148,737.34)	
DEI President and Staff			2,960.58	2,960.58	
DEP Central Progs Svcs			11,377.09	11,377.09	
DEP Environmental			(4,000.00)	(4,000.00)	
DEP Fossil Hydro			58,278.72	58,278.72	
DEP Power Delivery	77.45	6,177.33	131,315.65	137,570.43	
DEP Regional Svcs			3,221.75	3,221.75	
DEP Retail		-	28,950.04	28,950.04	
Duke Energy Ohio - RU		-	(89,763.59)	(89,763.59)	
Marketing & Customer Engagemen		(0.03)	3,796.43	3,796.40	

Piedmont Gas - Customer				467.49	467.49	
Piedmont Gas - Delivery	59.56	15,766.91	16,761.83		32,588.30	
Piedmont Gas - Other	46.52		3,939.42		3,985.94	
SrvCo Construct & Proj Mgmt	16.74	22,152.34	203,155.89		225,324.97	
SrvCo Customer Service	82.46	3.32	2,465,693.41		2,465,779.19	
SrvCo Enterprise Business Sys	276,175.33	2,044,729.63	30,064,378.05		32,385,283.01	
SrvCo EnviroHealthSafety	9,582.83	3,860.61	1,762,559.83		1,776,003.27	
SrvCo Fossil Hydro Total			66,239.85		66,239.85	
SrvCo Gas	22.99		3,079.27		3,102.26	
SrvCo Gen Support	319,871.73	6,220.25	755,303.87		1,081,395.85	
SrvCo Nuclear			12,986.37		12,986.37	
SrvCo Other	7,162.48	26,430.92	3,486,962.83		3,520,556.23	
SrvCo Power Delivery	3,429,837.40	3,485.95	2,761,750.11		6,195,073.46	
Mar 2019						
100 Org Effectiveness			46,043.82		46,043.82	
110 Central Progs Svcs			1,548,307.59		1,548,307.59	
110 Regional Svcs			182,194.35		182,194.35	
Corporate Governance DiscOps	593.53	13,017.86	(752,512.18)		(738,900.79)	
DE Renewables & Transmission	25.85		2,136.46		2,162.31	
DEC Central Programs Services			101,224.48		101,224.48	
DEC Customer	34,747.53	28,592.41	234,764.36		298,104.30	
DEC Customer Experience	2,783.57	5,319.18	51,390.40		59,493.15	
DEC Environmental			38,793.81		38,793.81	
DEC Fossil Hydro	9.06		43,663.69		43,672.75	
DEC Nuclear	3,269.76		42,238.27		45,508.03	
DEC Org Effectiveness		13,214.74	(5,132.60)		8,082.14	
DEC Other			13,103.90		13,103.90	
DEC Other Misc	83.15	20,176.65	6,947.11		27,206.91	
DEC Power Delivery	26,137.83	17,155.47	637,344.21		680,637.51	
DEC Regional Svcs			29,187.77		29,187.77	
DEC Wholesale Pwr & Rnwable Gen	36.02	4,255.04	2,976.12		7,267.18	
DEF Other	2,976.38	912.24	243,975.75		247,864.37	
DEF Power Delivery	509.16	1,860.25	93,939.91		96,309.32	

DEF Regional Svcs				24,834.60	24,834.60
DEF Retail				(1,397.37)	(1,397.37)
DEI Power Delivery	574.00			(147,332.55)	(146,758.55)
DEI President and Staff				6,023.69	6,023.69
DEP Central Progs Svcs				17,065.54	17,065.54
DEP Environmental				(4,000.00)	(4,000.00)
DEP Fossil Hydro	2.64			90,103.30	90,105.94
DEP Org Effectiveness	49.64	5,000.58		4,102.62	9,152.84
DEP Power Delivery	116.13	8,603.19		205,641.14	214,360.46
DEP Regional Svcs				9,964.78	9,964.78
DEP Retail		(0.07)		31,662.80	31,662.73
Duke Energy Ohio - RU		0.01		(80,741.24)	(80,741.23)
Marketing & Customer Engagemen		(0.04)		3,796.43	3,796.39
Piedmont Gas - Customer				578.97	578.97
Piedmont Gas - Delivery	117.48	23,878.91		36,047.49	60,043.88
Piedmont Gas - Other	80.45			6,743.04	6,823.49
SrvCo Construct & Proj Mgmt	16.74	26,203.29		316,509.17	342,729.20
SrvCo Customer Service	82.46	1,827.16		4,134,976.02	4,136,885.64
SrvCo Enterprise Business Svcs	423,111.88	3,232,866.59		45,686,479.04	49,342,457.51
SrvCo EnviroHealthSafety	15,214.21	5,097.45		2,668,063.89	2,688,375.55
SrvCo Fossil Hydro Total	126.42			105,720.13	105,846.55
SrvCo Gas	22.99			3,872.28	3,895.27
SrvCo Gen Support	433,403.74	9,125.45		1,102,989.02	1,545,518.21
SrvCo Nuclear				19,831.17	19,831.17
SrvCo Other	12,096.03	41,970.71		5,308,414.48	5,362,481.22
SrvCo Power Delivery	6,242,821.41	2,516.07		4,266,570.29	10,511,907.77
Q2 2019					
Apr 2019					
100 Org Effectiveness				57,742.05	57,742.05
110 Central Progs Svcs		3,451.21		1,990,910.56	1,994,361.77
110 Regional Svcs				222,221.62	222,221.62
Corporate Governance DiscOps	800.75	16,935.20		421,231.98	438,967.93
DE Renewables & Transmission	25.85			2,136.46	2,162.31

DEC Central Programs Services					140,532.85
DEC Customer	45,525.15	57,086.10		289,999.80	392,611.05
DEC Customer Experience	4,796.57	12,958.42		51,952.59	69,707.58
DEC Environmental				54,076.45	54,076.45
DEC Fleet Maint Svcs				54,320.02	54,320.02
DEC Fossil Hydro	9.06			50,949.85	50,958.91
DEC Nuclear	3,146.73			50,472.26	53,618.99
DEC Org Effectiveness		17,753.46		(5,132.60)	12,620.86
DEC Other				17,329.50	17,329.50
DEC Other Misc	100.10	26,638.31		8,630.12	35,368.53
DEC Power Delivery	32,032.11	26,074.68		868,291.13	926,397.92
DEC Rates				3,870.21	3,870.21
DEC Regional Svcs				32,251.52	32,251.52
DEC Wholesale Pwr & Rnwable Gen	38.79	4,484.32		3,205.40	7,728.51
DEF Fossil Hydro				968.31	968.31
DEF Other	3,775.82	912.24		309,503.26	314,191.32
DEF Power Delivery	523.75	4,594.23		117,297.93	122,415.91
DEF Regional Svcs				33,754.26	33,754.26
DEF Retail				1,478.44	1,478.44
DEI Power Delivery	574.00			(140,479.83)	(139,905.83)
DEI President and Staff				8,401.42	8,401.42
DEP Central Progs Svcs				22,783.89	22,783.89
DEP Environmental				(4,000.00)	(4,000.00)
DEP Fossil Hydro	2.64			116,341.21	116,343.85
DEP Gen Ops Support				-	-
DEP Nuclear	36.31			2,928.42	2,964.73
DEP Org Effectiveness	49.64	12,111.84		4,102.62	16,264.10
DEP Power Delivery	131.97	10,340.16		251,997.12	262,469.25
DEP Regional Svcs				16,076.39	16,076.39
DEP Retail		(0.06)		31,754.51	31,754.45
Duke Energy Ohio - RU		0.01		(69,078.60)	(69,078.59)
Marketing & Customer Engagemen		(0.04)		5,780.75	5,780.71
Piedmont Gas - Customer				578.97	578.97

Piedmont Gas - Delivery	135.69	31,056.39	45,283.23	76,475.31
Piedmont Gas - Other	80.45	8,745.84	6,743.04	15,569.33
Srvco Coal Combustion Products			500.00	500.00
SrvCo Construct & Proj Mgmt	16.74	29,415.97	408,199.68	437,632.39
Srvco Customer Service	82.46	3,094.76	5,387,025.01	5,390,202.23
SrvCo Enterprise Business Svcs	555,541.24	4,477,911.36	60,023,373.19	65,056,825.79
SrvCo EnviroHealthSafety	15,432.31	6,269.38	3,463,796.93	3,485,498.62
SrvCo Fossil Hydro Total	126.42		141,371.75	141,498.17
SrvCo Gas	22.99		3,872.28	3,895.27
SrvCo Gen Support	536,133.20	14,741.88	1,407,929.11	1,958,804.19
SrvCo Nuclear			24,722.70	24,722.70
SrvCo Other	16,720.28	53,480.41	6,891,239.04	6,961,439.73
SrvCo Power Delivery	8,147,521.88	5,503.24	5,615,775.55	13,768,800.67
May 2019				
100 Org Effectiveness			70,113.76	70,113.76
110 Central Progs Svcs		9,778.66	2,467,377.53	2,477,156.19
110 Regional Svcs			257,031.33	257,031.33
Corporate Governance DiscOps	960.69	19,262.04	1,599,149.64	1,619,372.37
DE Renewables & Transmission	25.85		2,136.46	2,162.31
DEC Central Programs Services	17,381.37	4,227.94	178,136.94	182,364.88
DEC Customer	6,930.65	84,608.02	224,102.52	326,091.91
DEC Customer Experience		26,611.27	50,561.89	84,103.81
DEC Environmental			66,783.63	66,783.63
DEC Fleet Maint Svcs			54,320.02	54,320.02
DEC Fossil Hydro	9.06	1,363.70	63,005.98	64,378.74
DEC Nuclear	3,195.62	5,165.22	54,414.53	62,775.37
DEC Org Effectiveness		21,893.94	(5,132.60)	16,761.34
DEC Other			33,891.72	33,891.72
DEC Other Misc	117.05	31,624.93	10,025.41	41,767.39
DEC Power Delivery	39,242.13	36,101.58	1,020,250.25	1,095,593.96
DEC Rates			3,870.21	3,870.21
DEC Regional Svcs			34,865.21	34,865.21
DEC Wholesale Pwr & Rnwable Gen	41.93	4,743.99	3,465.08	8,251.00

DEF Fossil Hydro	18.00			968.31	986.31
DEF Other	4,638.43	912.24		380,208.81	385,759.48
DEF Power Delivery	3,258.96	7,396.95		113,432.93	124,088.84
DEF Regional Svcs				40,196.09	40,196.09
DEF Retail		(0.02)		4,423.10	4,423.08
DEI Power Delivery	873.60	-		(160,394.80)	(159,521.20)
DEI President and Staff				10,640.13	10,640.13
DEP Central Progs Svcs				28,493.73	28,493.73
DEP Environmental				(4,000.00)	(4,000.00)
DEP Fossil Hydro	2.64			139,674.65	139,677.29
DEP Gen Ops Support				-	-
DEP Nuclear	152.49			12,298.39	12,450.88
DEP Org Effectiveness	49.64	18,968.22		4,102.62	23,120.48
DEP Power Delivery	135.84	13,718.96		246,186.58	260,041.38
DEP Regional Svcs				21,981.79	21,981.79
DEP Retail		(0.06)		31,860.41	31,860.35
Duke Energy Ohio - RU		0.01		(59,200.44)	(59,200.43)
Marketing & Customer Engagemen		(0.04)		5,780.75	5,780.71
Piedmont Gas - Customer				578.97	578.97
Piedmont Gas - Delivery	151.16	37,317.85		51,412.51	88,881.52
Piedmont Gas - Other	80.45	16,005.24		6,743.04	22,828.73
Srvco Coal Combustion Products				500.00	500.00
Srvco Construct & Proj Mgmt	16.74	33,268.85		495,408.31	528,693.90
Srvco Customer Service	107.42	7,192.80		6,607,699.53	6,614,999.75
Srvco Enterprise Business Svcs	779,521.23	5,831,951.20		73,627,378.69	80,238,851.12
Srvco EnviroHealthSafety	18,027.52	8,927.61		4,207,603.10	4,234,558.23
Srvco Fossil Hydro Total	126.42			185,200.00	185,326.42
Srvco Gas	22.99			5,193.78	5,216.77
Srvco Gen Support	648,286.95	17,617.11		1,697,452.43	2,363,356.49
Srvco Nuclear				29,821.59	29,821.59
Srvco Other	20,929.67	67,524.19		8,563,408.27	8,651,862.13
Srvco Power Delivery	10,137,223.94	6,914.87		6,986,369.37	17,130,508.18
Jun 2019					

100 Org Effectiveness				100,417.80				100,417.80
110 Central Progs Svcs				2,978,283.40				2,995,654.96
110 Regional Svcs				302,333.90				302,333.90
Corporate Governance DiscOps				2,838,833.59				2,859,746.02
DE Renewables & Transmission	1,111.97			2,136.46				2,162.31
DEC Central Programs Services	25.85			121,616.23				133,062.47
DEC Customer	17,310.01			212,121.85				327,781.75
DEC Customer Experience	2,821.44			72,441.18				119,054.03
DEC Environmental				79,433.21				79,433.21
DEC Fleet Maint Svcs				-				-
DEC Fossil Hydro	9.06			41,268.07				42,640.84
DEC Nuclear	3,244.81			59,131.81				70,949.58
DEC Org Effectiveness				(5,132.60)				22,016.54
DEC Other				80,119.97				80,119.97
DEC Other Misc	145.01			12,336.07				50,829.02
DEC Power Delivery	6,027.12			878,590.57				927,674.66
DEC President & Staff				10,021.58				10,021.58
DEC Rates				3,870.21				3,870.21
DEC Regional Svcs				20,267.74				20,267.74
DEC Wholesale Pwr & Rnwable Gen	45.36			3,748.28				8,820.83
DEF Fossil Hydro	18.00			968.31				986.31
DEF Other	5,413.56			443,744.36				450,070.16
DEF Power Delivery	3,693.91			123,935.33				138,317.12
DEF Regional Svcs				44,210.09				46,885.92
DEF Retail				29,159.37				29,159.34
DEI Power Delivery	873.60			(141,622.13)				(140,748.53)
DEI President and Staff				12,086.25				12,086.25
DEP Central Progs Svcs				34,481.55				34,481.55
DEP Environmental				(4,000.00)				(4,000.00)
DEP Fossil Hydro	2.64			162,449.24				162,451.88
DEP Gen Ops Support				-				-
DEP Nuclear	47.76			3,852.51				3,900.27
DEP Org Effectiveness	49.64			4,102.62				29,752.78

DEP Power Delivery	173.42	15,144.86	276,244.21	291,562.49
DEP Regional Svcs			26,880.99	26,880.99
DEP Retail		(0.07)	31,913.36	31,913.29
Duke Energy Ohio - RU		0.01	(64,558.78)	(64,558.77)
Marketing & Customer Engagemen		(0.06)	5,780.75	5,780.69
Piedmont Gas - Customer			578.97	578.97
Piedmont Gas - Delivery	179.02	43,524.83	55,473.66	99,177.51
Piedmont Gas - Other	92.68	21,686.43	7,754.02	29,533.13
Srvco Coal Combustion Products			29,250.85	29,250.85
SrvCo Construct & Proj Mgmt	16.74	37,331.45	581,892.14	619,240.33
SrvCo Customer Service	168.23	17,410.06	7,834,300.80	7,851,879.09
SrvCo Enterprise Business Svcs	807,656.54	7,515,432.93	87,781,288.78	96,104,378.25
SrvCo EnviroHealthSafety	20,671.35	10,558.58	4,985,691.36	5,016,921.29
SrvCo Fossil Hydro Total	126.42		215,057.08	215,183.50
SrvCo Gas	22.99		7,008.19	7,031.18
SrvCo Gen Support	119,797.32	19,714.68	2,654,712.35	2,794,224.35
SrvCo Nuclear			36,838.09	36,838.09
SrvCo Other	25,861.91	79,399.15	10,273,758.69	10,379,019.75
SrvCo Power Delivery	11,830,132.66	6,914.73	8,555,714.39	20,392,761.78
Q3 2019				
Jul 2019				
100 Org Effectiveness			115,710.59	115,710.59
110 Central Progs Svcs		24,619.28	3,387,659.44	3,412,278.72
110 Regional Svcs			356,703.07	356,703.07
Corporate Governance DiscOps	1,201.87	19,918.55	2,894,742.59	2,915,863.01
DE Renewables & Transmission	25.85		2,136.46	2,162.31
DEC Central Programs Services		18,462.46	156,200.45	174,662.91
DEC Customer	17,319.57	114,562.72	270,642.25	402,524.54
DEC Customer Experience	5,176.89	59,017.87	86,064.75	150,259.51
DEC Environmental			82,948.16	82,948.16
DEC Fleet Maint Svcs			-	-
DEC Fossil Hydro	9.06	1,363.71	46,162.08	47,534.85
DEC Fossil Hydro Gen Support			502.36	502.36

DEC Nuclear	3,321.08	11,950.71	65,187.87	80,459.66
DEC Org Effectiveness		31,687.70	(3,359.78)	28,327.92
DEC Other			111,375.34	111,375.34
DEC Other Misc	163.43	43,186.04	14,352.91	57,702.38
DEC Power Delivery	(18,321.58)	52,302.07	805,491.14	839,471.63
DEC President & Staff			-	-
DEC Rates			3,870.21	3,870.21
DEC Regional Svcs			21,253.75	21,253.75
DEC Wholesale Pwr & Rnwable Gen	48.63	5,297.59	4,018.68	9,364.90
DEF Fossil Hydro	18.00		968.31	986.31
DEF Other	6,306.33	912.24	516,921.82	524,140.39
DEF Power Delivery	3,690.78	13,496.20	103,826.31	121,013.29
DEF Regional Svcs		7,730.39	47,579.69	55,310.08
DEF Retail		(0.03)	30,664.66	30,664.63
DEI Power Delivery	873.60	-	(148,191.89)	(147,318.29)
DEI President and Staff			14,060.77	14,060.77
DEP Central Progs Svcs			39,258.04	39,258.04
DEP Environmental			(4,000.00)	(4,000.00)
DEP Fossil Hydro	2.64		189,240.67	189,243.31
DEP Gen Ops Support			-	-
DEP Nuclear	47.76		3,852.51	3,900.27
DEP Org Effectiveness	49.64	30,649.30	4,102.62	34,801.56
DEP Power Delivery	199.14	16,424.71	204,627.34	221,251.19
DEP Regional Svcs			28,731.89	28,731.89
DEP Retail		(0.07)	31,913.36	31,913.29
Duke Energy Ohio - RU		0.01	(63,621.99)	(63,621.98)
Marketing & Customer Engagemen		(0.06)	5,780.75	5,780.69
Piedmont Gas - Customer			578.97	578.97
Piedmont Gas - Delivery	205.10	49,396.55	59,652.34	109,253.99
Piedmont Gas - Other	103.34	27,970.20	8,635.60	36,709.14
Srvco Coal Combustion Products			60,197.84	60,197.84
SrvCo Construct & Proj Mgmt	16.74	41,404.45	645,050.01	686,471.20
Srvco Customer Service	171.40	(240,274.32)	8,863,937.63	8,623,834.71

SrvCo Enterprise Business Svs	928,200.68	8,805,024.63	101,096,716.22	110,829,941.53
SrvCo EnviroHealthSafety	23,305.27	12,234.63	5,618,792.11	5,654,332.01
SrvCo Fossil Hydro Total	126.42		249,835.10	249,961.52
SrvCo Gas	22.99		7,318.91	7,341.90
SrvCo Gen Support	210,764.67	19,714.68	2,940,804.51	3,171,283.86
SrvCo Nuclear			41,891.34	41,891.34
SrvCo Other	30,198.83	91,833.41	11,875,663.23	11,997,695.47
SrvCo Power Delivery	13,686,571.00	11,200.32	9,858,314.53	23,556,085.85
Aug 2019				
100 Org Effectiveness			134,829.61	134,829.61
110 Central Progs Svcs		32,211.96	3,906,487.37	3,938,699.33
110 Regional Svcs			420,016.23	420,016.23
Corporate Governance DiscOps	1,347.50	20,469.73	2,852,365.64	2,874,182.87
DE Renewables & Transmission	25.85		2,136.46	2,162.31
DEC Central Programs Services		25,029.92	198,382.97	223,412.89
DEC Customer	17,334.80	48,470.39	253,320.89	319,126.08
DEC Customer Experience	6,596.57	71,349.93	69,672.63	147,619.13
DEC Environmental			86,200.56	86,200.56
DEC Fleet Maint Svcs			-	-
DEC Fossil Hydro	9.06	1,363.71	7,268.43	8,641.20
DEC Fossil Hydro Gen Support			502.36	502.36
DEC Nuclear	3,352.85	17,410.55	67,749.62	88,513.02
DEC Org Effectiveness		36,704.18	(578.66)	36,125.52
DEC Other			132,176.00	132,176.00
DEC Other Misc	186.54	50,570.60	16,262.86	67,020.00
DEC Power Delivery	7,403.15	61,657.88	541,355.40	610,416.43
DEC President & Staff			-	-
DEC Rates			3,870.21	3,870.21
DEC Regional Svcs			943.75	943.75
DEC Wholesale Pwr & Rnwable Gen	50.50	5,452.15	4,173.24	9,675.89
DEF Fossil Hydro	18.00		968.31	986.31
DEF Other	7,795.97	912.24	639,023.82	647,732.03
DEF Power Delivery	3,736.73	19,037.69	92,632.44	115,406.86

DEF Regional Svcs		13,082.25	51,225.97	64,308.22
DEF Retail		(0.03)	20,734.45	20,734.42
DEI Power Delivery	873.60	-	(120,201.25)	(119,327.65)
DEI President and Staff			3,563.27	3,563.27
DEP Central Progs Svcs			45,245.69	45,245.69
DEP Environmental			(4,000.00)	(4,000.00)
DEP Fossil Hydro	2.64		218,047.91	218,050.55
DEP Gen Ops Support			-	-
DEP Nuclear	47.76		3,852.51	3,900.27
DEP Org Effectiveness	49.64	38,228.76	4,102.62	42,381.02
DEP Power Delivery	245.56	18,643.64	158,912.26	177,801.46
DEP Regional Svcs			5,268.69	5,268.69
DEP Retail		(0.06)	31,934.55	31,934.49
Duke Energy Ohio - RU		0.01	(76,356.94)	(76,356.93)
Marketing & Customer Engagemen		(0.06)	5,780.75	5,780.69
Piedmont Gas - Customer			578.97	578.97
Piedmont Gas - Delivery	228.33	55,930.25	63,978.85	120,137.43
Piedmont Gas - Other	103.34	35,545.40	8,635.60	44,284.34
Srvco Coal Combustion Products			92,336.64	92,336.64
SrvCo Construct & Proj Mgmt	16.74	45,477.31	722,371.67	767,865.72
Srvco Customer Service	174.71	(233,857.00)	10,351,288.48	10,117,606.19
SrvCo Enterprise Business Svs	1,068,523.65	10,984,121.86	115,946,669.06	127,999,314.57
SrvCo EnviroHealthSafety	25,395.35	13,315.07	6,324,366.00	6,363,076.42
SrvCo Fossil Hydro Total	126.42		286,278.11	286,404.53
SrvCo Gas	22.99		8,458.05	8,481.04
SrvCo Gen Support	301,627.54	19,714.68	3,235,062.89	3,556,405.11
SrvCo Nuclear			48,390.17	48,390.17
SrvCo Other	34,003.07	103,254.46	13,570,782.12	13,708,039.65
SrvCo Power Delivery	16,530,547.69	12,626.20	11,280,813.21	27,823,987.10
Sep 2019				
100 Org Effectiveness			149,957.91	149,957.91
110 Central Progs Svcs		38,394.64	4,399,728.82	4,438,123.46
110 Regional Svcs			460,947.99	460,947.99

Corporate Governance DiscOps	1,455.53	20,469.73	2,780,413.51	2,802,338.77
DE Renewables & Transmission	25.85		2,136.46	2,162.31
DEC Central Programs Services		32,589.62	232,063.00	264,652.62
DEC Customer	17,299.33	62,431.96	258,421.29	338,152.58
DEC Customer Experience	3,681.08	84,569.71	56,037.19	144,287.98
DEC Environmental			89,113.91	89,113.91
DEC Fleet Maint Svcs			-	-
DEC Fossil Hydro	9.06	1,363.71	20,771.90	22,144.67
DEC Fossil Hydro Gen Support			502.36	502.36
DEC Nuclear	3,368.71	22,972.67	75,679.89	102,021.27
DEC Org Effectiveness		40,980.06	631.08	41,611.14
DEC Other		-	144,763.13	144,763.13
DEC Other Misc	204.87	55,408.74	17,777.92	73,391.53
DEC Power Delivery	8,914.02	70,826.72	322,265.47	402,006.21
DEC President & Staff			-	-
DEC Rates			3,870.21	3,870.21
DEC Regional Svcs			943.75	943.75
DEC Wholesale Pwr & Rnwable Gen	53.52	5,701.31	4,422.40	10,177.23
DEF Fossil Hydro	18.00		968.31	986.31
DEF Other	8,593.98	912.24	704,434.15	713,940.37
DEF Power Delivery	3,719.69	20,681.89	97,949.95	122,351.53
DEF Regional Svcs		19,772.01	52,898.37	72,670.38
DEF Retail		(0.05)	20,734.45	20,734.40
DEI Power Delivery	873.60	-	(96,445.51)	(95,571.91)
DEI President and Staff			5,440.45	5,440.45
DEP Central Progs Svcs			49,549.21	49,549.21
DEP Environmental			(3,000.00)	(3,000.00)
DEP Fossil Hydro	2.64		237,429.69	237,432.33
DEP Gen Ops Support			-	-
DEP Nuclear	47.76		3,852.51	3,900.27
DEP Org Effectiveness	67.79	45,382.05	5,602.62	51,052.46
DEP Power Delivery	1,256.07	20,176.69	82,972.49	104,405.25
DEP Regional Svcs			5,421.84	5,421.84

DEP Retail				(0.07)					31,934.55	31,934.48
Duke Energy Ohio - RU				0.01					(83,892.41)	(83,892.40)
Marketing & Customer Engagemen				(0.07)					5,780.75	5,780.68
Piedmont Gas - Customer									578.97	578.97
Piedmont Gas - Delivery	230.84			63,657.07					74,471.32	138,359.23
Piedmont Gas - Other	103.34			32,102.12					8,635.60	40,841.06
Srvco Coal Combustion Products									113,897.61	113,897.61
SrvCo Construct & Proj Mgmt	16.74			48,846.44					784,958.95	833,822.13
SrvCo Customer Service	177.52			(225,078.26)					11,356,843.42	11,131,942.68
SrvCo Enterprise Business Svs	1,198,062.89			12,261,401.19					129,537,240.86	142,996,704.94
SrvCo EnviroHealthSafety	26,714.94			14,060.83					6,990,263.18	7,031,038.95
SrvCo Fossil Hydro Total	126.42								323,645.69	323,772.11
SrvCo Gas	22.99								9,695.65	9,718.64
SrvCo Gen Support	385,860.42			19,714.68					3,529,573.39	3,935,148.49
SrvCo Nuclear									54,839.75	54,839.75
SrvCo Other	38,934.98			110,497.62					15,192,271.59	15,341,704.19
SrvCo Power Delivery	18,386,769.94			14,144.68					12,517,006.84	30,919,931.18
Grand Total	\$ 21,257,033.11	\$ 14,604,718.52	\$	3,067.64	\$ 201,320,312.32	\$	\$ 237,185,131.59			

Actual - 12 months ending December 2018

See second query for department detail

Business Unit Hierarchy	Duke Energy Kentucky Electric				
	ASSET - Assets	CAPITAL - Capital	INDIRECT - Indirect	O&M and Other Expenses	Grand Total
Q1 2018					
Jan 2018	\$ 1,746,386.17	\$ 697,883.11		\$ 20,489,890.01	\$ 22,934,159.29
Feb 2018	3,917,555.32	1,514,437.35		42,575,492.14	48,007,484.81
Mar 2018	6,802,327.11	2,434,440.07	(1,461.68)	65,643,118.27	74,878,423.77
Q2 2018					
Apr 2018	8,878,954.63	3,301,479.46	-	88,944,681.28	101,125,115.37
May 2018	10,993,763.26	4,244,631.50	-	111,932,606.39	127,171,001.15
Jun 2018	12,979,791.92	5,384,150.80	-	135,171,819.74	153,535,762.46
Q3 2018					
Jul 2018	14,914,631.92	6,184,631.42	-	155,487,615.31	176,586,878.65
Aug 2018	17,844,703.92	7,187,629.35	-	179,397,456.85	204,429,790.12
Sep 2018	18,713,230.54	8,132,410.26	-	201,897,052.08	228,742,692.88
Q4 2018					
Oct 2018	20,840,399.83	9,969,849.48	-	224,590,574.53	255,400,823.84
Nov 2018	22,920,151.55	10,943,364.69	-	245,933,421.31	279,796,937.55
Dec 2018	24,210,037.93	13,543,942.76	-	262,822,916.45	300,576,897.14
Grand Total	\$ 24,210,037.93	\$ 13,543,942.76	\$ -	\$ 262,822,916.45	\$ 300,576,897.14

Business Unit Hierarchy	Duke Energy Kentucky Electric				
	ASSET - Assets	CAPITAL - Capital	INDIRECT - Indirect	O&M and Other Expenses	Grand Total
Q1 2018					
Jan 2018					
100 Org Effectiveness				\$ 6,015.90	\$ 6,015.90
110 Central Progs Svcs				468,235.11	468,235.11

110 Regional Svcs				49,259.52	49,259.52
Corporate Governance DiscOps	88.09	1,678.76	(289,445.98)	(287,679.13)	
DEC Central Programs Services			39,273.57	39,273.57	
DEC Coal Combustion Products			750.00	750.00	
DEC Customer	22.34	419.90	64,279.96	64,722.20	
DEC Customer Experience		4,417.64	10,149.11	14,566.75	
DEC Environmental	20.54	-	10,349.52	10,370.06	
DEC Fleet Maint Svcs			1,788.00	1,788.00	
DEC Fossil Hydro			2,242.90	2,242.90	
DEC Nuclear	71.83		5,882.58	5,954.41	
DEC Org Effectiveness			40,803.96	40,803.96	
DEC Other			2,714.00	2,714.00	
DEC Other Misc	82.45		11,208.24	11,290.69	
DEC Power Delivery	21.92	7,664.73	132,062.79	139,749.44	
DEC Regional Svcs			6,487.42	6,487.42	
DEC Wholesale Pwr & Rnwable Gen	25.27	3,384.36	2,255.88	5,665.51	
DEF Fossil Hydro			870.57	870.57	
DEF Other	201.69		17,737.82	17,939.51	
DEF Power Delivery	473.40	(0.01)	77,244.73	77,718.12	
DEI Power Delivery	290.88		16,483.11	16,773.99	
DEP Central Progs Svcs			5,403.05	5,403.05	
DEP Environmental	35.16		(1,422.10)	(1,386.94)	
DEP Fossil Hydro			17,745.26	17,745.26	
DEP Gen Ops Support			17,230.46	17,230.46	
DEP Power Delivery	2.34	1,856.69	17,720.37	19,579.40	
Duke Energy Ohio - RU			8,014.70	8,014.70	
Marketing & Customer Engagemen			6,866.52	6,866.52	
Piedmont Gas - Customer			1,173.30	1,173.30	
Piedmont Gas - Delivery			7,867.99	7,867.99	
Piedmont Gas - Other			4,934.07	4,934.07	
SrvCo Construct & Proj Mgmt	11.23	7,842.78	37,691.54	45,545.55	
SrvCo Customer Service	33.56	41.86	1,147,091.77	1,147,167.19	
SrvCo Enterprise Business Svcs	126,785.80	667,909.78	14,454,318.00	15,249,013.58	

SrvCo EnviroHealthSafety	4,280.17	2,666.71	901,641.84	908,588.72
SrvCo Fossil Hydro Total			26,537.60	26,537.60
SrvCo Gas			22,361.54	22,361.54
SrvCo Gen Support	135,554.01		318,208.87	453,762.88
SrvCo Nuclear			6,575.96	6,575.96
SrvCo Other	2,163.86		1,647,852.40	1,650,016.26
SrvCo Power Delivery	1,476,221.63	(0.09)	1,165,428.16	2,641,649.70
Feb 2018				
100 Org Effectiveness			13,787.49	13,787.49
110 Central Progs Svcs			961,559.59	961,559.59
110 Regional Svcs			103,495.67	103,495.67
Corporate Governance DiscOps	216.41	3,376.19	(529,328.29)	(525,735.69)
DEC Central Programs Services			74,028.63	74,028.63
DEC Coal Combustion Products			750.00	750.00
DEC Customer	22.34	776.27	140,321.50	141,120.11
DEC Customer Experience		11,069.68	22,808.50	33,878.18
DEC Environmental	20.54	-	21,911.08	21,931.62
DEC Fleet Maint Svcs			4,395.68	4,395.68
DEC Fossil Hydro			4,963.25	4,963.25
DEC Nuclear	180.01		17,578.30	17,758.31
DEC Org Effectiveness			86,215.38	86,215.38
DEC Other			6,234.00	6,234.00
DEC Other Misc	99.71	5,555.79	14,193.77	19,849.27
DEC Power Delivery	102.53	8,741.00	273,377.67	282,221.20
DEC Regional Svcs			11,861.42	11,861.42
DEC Wholesale Pwr & Rnwable Gen	54.64	7,318.68	4,878.36	12,251.68
DEF Fossil Hydro			1,628.89	1,628.89
DEF Other	435.38		38,259.86	38,695.24
DEF Power Delivery	1,131.61	(0.01)	94,994.49	96,126.09
DEF Retail	0.14		12.90	13.04
DEI Power Delivery	2,399.76		(51,055.42)	(48,655.66)
DEK Power Delivery			(6,173.79)	(6,173.79)
DEP Central Progs Svcs			11,093.94	11,093.94

DEP Environmental	35.16	-	(1,422.10)	(1,386.94)
DEP Fossil Hydro			56,403.35	56,403.35
DEP Gen Ops Support			26,775.41	26,775.41
DEP Power Delivery	4.95	1,856.66	33,531.73	35,393.34
Duke Energy Ohio - RU			4,584.73	4,584.73
Marketing & Customer Engagemen			6,574.54	6,574.54
Piedmont Gas - Customer			4,068.45	4,068.45
Piedmont Gas - Delivery	33.54		44,454.25	44,487.79
Piedmont Gas - Other			26,268.88	26,268.88
SrvCo Construct & Proj Mgmt	23.35	15,872.28	78,090.43	93,986.06
SrvCo Customer Service	46.63	249.24	2,406,604.26	2,406,900.13
SrvCo Enterprise Business Svs	262,758.08	1,451,835.68	30,038,630.78	31,753,224.54
SrvCo EnviroHealthSafety	8,031.99	3,140.83	1,825,476.13	1,836,648.95
SrvCo Fossil Hydro Total			56,621.84	56,621.84
SrvCo Gas			45,603.46	45,603.46
SrvCo Gen Support	264,858.82		660,698.37	925,557.19
SrvCo Nuclear			13,150.75	13,150.75
SrvCo Other	4,483.96	4,645.27	3,408,206.94	3,417,336.17
SrvCo Power Delivery	3,372,615.77	(0.21)	2,519,377.07	5,891,992.63
Mar 2018				
100 Org Effectiveness			25,626.00	25,626.00
110 Central Progs Svcs	5.12		1,470,326.02	1,470,331.14
110 Regional Svcs			151,524.75	151,524.75
Corporate Governance DiscOps	371.94	5,936.43	(649,919.58)	(643,611.21)
DEC Central Programs Services			96,834.26	96,834.26
DEC Coal Combustion Products			750.00	750.00
DEC Customer	22.34	1,135.33	101,368.72	102,526.39
DEC Customer Experience	51.83	17,542.87	42,741.59	60,336.29
DEC Environmental	20.54	-	36,287.29	36,307.83
DEC Fleet Maint Svcs			4,395.68	4,395.68
DEC Fossil Hydro			4,963.25	4,963.25
DEC Nuclear	328.26		29,251.49	29,579.75
DEC Org Effectiveness			-	-

DEC Other				11,487.44	11,487.44
DEC Other Misc				46,301.59	46,301.59
DEC Power Delivery	136.01	11,961.96		416,398.00	441,560.62
DEC Regional Svcs	119.20	25,043.42		18,506.72	18,506.72
DEC Wholesale Pwr & Rnwable Gen	81.89	10,968.28		7,311.56	18,361.73
DEF Fossil Hydro				2,337.69	2,337.69
DEF Other	773.89	447.50		68,018.00	69,239.39
DEF Power Delivery	1,137.10	(0.02)		100,191.84	101,328.92
DEF Retail	1.52			136.02	137.54
DEI Fossil Hydro				178.08	178.08
DEI Power Delivery	4,120.25			(23,494.51)	(19,374.26)
DEK Power Delivery				(6,173.79)	(6,173.79)
DEP Central Progs Svcs				16,930.09	16,930.09
DEP Environmental	35.16	-		(1,422.10)	(1,386.94)
DEP Fossil Hydro				78,884.92	78,884.92
DEP Gen Ops Support	7.49	1,856.65		26,775.41	26,775.41
DEP Power Delivery				56,619.97	58,484.11
Duke Energy Ohio - RU				15,586.98	15,586.98
Marketing & Customer Engagemen				10,284.45	10,284.45
Piedmont Gas - Customer				7,241.16	7,241.16
Piedmont Gas - Delivery	40.98			63,570.29	63,611.27
Piedmont Gas - Other				39,492.20	39,492.20
SrvCo Construct & Proj Mgmt	36.56	20,093.36		118,130.16	138,260.08
SrvCo Customer Service	46.63	258.36		3,887,350.09	3,887,655.08
SrvCo Enterprise Business Svs	403,925.72	2,311,392.94	(1,461.68)	46,423,532.15	49,137,389.13
SrvCo EnviroHealthSafety	12,411.33	6,484.27		2,777,816.43	2,796,712.03
SrvCo Fossil Hydro Total				92,241.99	92,241.99
SrvCo Gas				59,999.06	59,999.06
SrvCo Gen Support	415,282.58			1,008,003.24	1,423,285.82
SrvCo Nuclear				19,882.56	19,882.56
SrvCo Other	6,898.77	21,319.03		5,137,686.94	5,165,904.74
SrvCo Power Delivery	5,956,472.00	(0.31)		3,861,262.14	9,817,733.83
Q2 2018					

Apr 2018				
100 Org Effectiveness			37,284.54	37,284.54
110 Central Progs Svcs	5.12		1,970,977.69	1,970,982.81
110 Regional Svcs			202,199.80	202,199.80
Corporate Governance DiscOps	442.63	10,055.15	559,058.16	569,555.94
DEC Central Programs Services			103,203.26	103,203.26
DEC Coal Combustion Products			750.00	750.00
DEC Customer	22.34	1,462.25	128,380.17	129,864.76
DEC Customer Experience	163.52	27,336.17	60,505.13	88,004.82
DEC Environmental	20.54	-	48,643.93	48,664.47
DEC Fleet Maint Svcs			4,395.68	4,395.68
DEC Fossil Hydro		871.20	4,963.25	5,834.45
DEC Nuclear	432.64		37,470.74	37,903.38
DEC Org Effectiveness			-	-
DEC Other	53.37	(4,764.94)	19,745.82	15,034.25
DEC Other Misc	159.19	19,008.19	24,504.30	43,671.68
DEC Power Delivery	137.59	25,368.59	577,220.90	602,727.08
DEC Regional Svcs			26,274.12	26,274.12
DEC Wholesale Pwr & Rnwable Gen	105.05	14,070.10	9,379.72	23,554.87
DEF Fossil Hydro			4,337.69	4,337.69
DEF Other	1,024.61	447.51	90,042.44	91,514.56
DEF Power Delivery	4,262.05	(0.02)	104,030.74	108,292.77
DEF Retail	2.33		208.62	210.95
DEI Fossil Hydro			178.08	178.08
DEI Power Delivery	4,120.25		(2,953.35)	1,166.90
DEK Fossil			918.05	918.05
DEK Power Delivery			(6,173.79)	(6,173.79)
DEP Central Progs Svcs			23,516.24	23,516.24
DEP Environmental	35.16	-	(1,422.10)	(1,386.94)
DEP Fossil Hydro			106,367.66	106,367.66
DEP Gen Ops Support			26,775.41	26,775.41
DEP Nuclear			3,089.25	3,089.25
DEP Power Delivery	9.77	2,423.35	108,295.81	110,728.93

Duke Energy Ohio - RU				24,233.50	24,233.50
Marketing & Customer Engagemen				14,266.62	14,266.62
Piedmont Gas - Customer				8,726.38	8,726.38
Piedmont Gas - Delivery	40.98			81,726.33	81,726.33
Piedmont Gas - Other				56,650.19	56,650.19
SrvCo Construct & Proj Mgmt	50.63	20,093.36		179,702.33	179,702.33
Srvco Customer Service	46.63	258.29		5,270,060.54	5,270,060.54
SrvCo Enterprise Business Svs	536,310.83	3,144,056.34	-	65,432,561.29	65,432,561.29
SrvCo EnviroHealthSafety	16,248.54	8,619.87		3,697,044.90	3,697,044.90
SrvCo Fossil Hydro Total				120,836.41	120,836.41
SrvCo Gas				84,642.98	84,642.98
SrvCo Gen Support	554,313.60			1,362,854.27	1,917,167.87
SrvCo Nuclear				26,336.41	26,336.41
SrvCo Other	9,516.17	32,174.40		6,787,889.93	6,829,580.50
SrvCo Power Delivery	7,751,431.09	(0.35)		5,250,706.71	13,002,137.45
May 2018					
100 Org Effectiveness				48,668.38	48,668.38
110 Central Progs Svcs	5.12			2,439,557.41	2,439,562.53
110 Regional Svcs				253,913.91	253,913.91
Corporate Governance DiscOps	513.10	13,227.07		1,770,219.06	1,783,959.23
DEC Central Programs Services				130,444.82	130,444.82
DEC Coal Combustion Products				750.00	750.00
DEC Customer	-	2,637.52		170,329.85	172,967.37
DEC Customer Experience	263.42	40,671.07		84,412.41	125,346.90
DEC Environmental	20.54	-		60,620.29	60,640.83
DEC Fleet Maint Svcs				4,395.68	4,395.68
DEC Fossil Hydro		871.20		4,963.25	5,834.45
DEC Nuclear	478.74			37,695.79	38,174.53
DEC Org Effectiveness				7,764.88	7,764.88
DEC Other	53.37	(4,764.94)		23,521.18	18,809.61
DEC Other Misc	190.85	25,167.79		27,331.02	52,689.66
DEC Power Delivery	153.35	27,066.01		726,763.34	753,982.70
DEC Regional Svcs				35,196.59	35,196.59

DUKE ENERGY KENTUCKY, INC.
Payroll Labor Costs

DEC Wholesale Pwr & Rnwable Gen	133.62	17,898.10	11,930.87	29,962.59
DEF Fossil Hydro			7,599.78	7,599.78
DEF Other	1,298.98	492.27	114,146.06	115,937.31
DEF Power Delivery	6,010.66	31.25	124,363.35	130,405.26
DEF Retail	2.80		7,898.30	7,901.10
DEI Customer			1,356.56	1,356.56
DEI Fossil Hydro			244.86	244.86
DEI Power Delivery	7,406.50		13,479.91	20,886.41
DEK Fossil			918.05	918.05
DEK Power Delivery			(6,173.79)	(6,173.79)
DEP Central Progs Svcs			29,084.31	29,084.31
DEP Environmental	35.16	-	(1,422.10)	(1,386.94)
DEP Fossil Hydro			134,082.48	134,082.48
DEP Gen Ops Support			26,775.41	26,775.41
DEP Nuclear			3,089.25	3,089.25
DEP Power Delivery	12.33	2,423.34	162,934.63	165,370.30
DEP Retail			497.71	497.71
Duke Energy Ohio - RU			32,106.03	32,106.03
Marketing & Customer Engagemen			18,177.66	18,177.66
Piedmont Gas - Customer			10,555.15	10,555.15
Piedmont Gas - Delivery	40.98		101,427.15	101,468.13
Piedmont Gas - Other			73,254.12	73,254.12
SrvCo Construct & Proj Mgmt	63.08	20,093.36	197,993.55	218,149.99
SrvCo Customer Service	82.00	258.26	6,674,748.40	6,675,088.66
SrvCo Enterprise Business Svcs	659,775.42	4,045,821.12	76,791,352.40	81,496,948.94
SrvCo EnviroHealthSafety	18,210.32	9,319.77	4,495,875.95	4,523,406.04
SrvCo Fossil Hydro Total			150,289.01	150,289.01
SrvCo Gas			98,081.82	98,081.82
SrvCo Gen Support	706,174.87		1,698,249.55	2,404,424.42
SrvCo Nuclear			31,143.58	31,143.58
SrvCo Other	11,882.75	43,418.80	8,446,784.74	8,502,086.29
SrvCo Power Delivery	9,580,955.30	(0.49)	6,655,213.78	16,236,168.59
Jun 2018				

100 Org Effectiveness				61,567.26	61,567.26	
110 Central Progs Svcs	5.12			2,906,434.29	2,906,429.17	
110 Regional Svcs				307,280.23	307,280.23	
Corporate Governance DiscOps	622.94	17,142.59		3,208,070.50	3,190,304.97	
DEC Central Programs Services				160,538.41	160,538.41	
DEC Coal Combustion Products				750.00	750.00	
DEC Customer		3,336.81		281,796.73	281,796.73	
DEC Customer Experience	367.25	52,874.26		104,091.52	104,091.52	
DEC Environmental	20.54	-		73,429.31	73,429.31	
DEC Fleet Maint Svcs			871.20	4,395.68	4,395.68	
DEC Fossil Hydro				5,445.45	5,445.45	
DEC Nuclear	601.02			43,494.53	43,494.53	
DEC Org Effectiveness				-	-	
DEC Other	53.37	(4,764.94)		27,190.30	27,190.30	
DEC Other Misc	212.46	32,504.67		29,260.48	29,260.48	
DEC Power Delivery	172.77	28,432.14		865,566.90	865,566.90	
DEC Regional Svcs				44,334.13	44,334.13	
DEC Wholesale Pwr & Rnwable Gen	158.92	21,287.39		14,418.61	14,418.61	
DEF Fossil Hydro				9,983.10	9,983.10	
DEF Other	1,609.31	492.26		141,396.35	141,396.35	
DEF Power Delivery	6,725.12	177.11		159,344.89	159,344.89	
DEF President & Staff				32,458.34	32,458.34	
DEF Retail	3.27			15,292.55	15,292.55	
DEI Customer				-	-	
DEI Fossil Hydro				244.86	244.86	
DEI Power Delivery	8,305.30			33,087.65	33,087.65	
DEK Fossil				918.05	918.05	
DEK Power Delivery				(6,173.79)	(6,173.79)	
DEP Central Progs Svcs				34,621.75	34,621.75	
DEP Environmental	35.16	-		(882.82)	(882.82)	
DEP Fossil Hydro				161,420.25	161,420.25	
DEP Gen Ops Support				26,775.41	26,775.41	
DEP Nuclear				-	-	

DEP Power Delivery	17.24	2,423.32	152,959.79	155,400.35
DEP Retail			4,205.11	4,205.11
Duke Energy Ohio - RU			53,121.14	53,121.14
Marketing & Customer Engagemen			22,073.10	22,073.10
Piedmont Gas - Customer			11,197.12	11,197.12
Piedmont Gas - Delivery	115.72		132,498.87	132,614.59
Piedmont Gas - Other			91,115.10	91,115.10
SrvCo Construct & Proj Mgmt	74.27	20,093.36	245,268.72	265,436.35
Srvco Customer Service	82.00	539.18	7,875,066.78	7,875,687.96
SrvCo Enterprise Business Svs	783,404.70	5,141,938.85	91,880,648.10	97,805,991.65
SrvCo EnviroHealthSafety	20,302.39	12,243.21	5,324,094.09	5,356,639.69
SrvCo Fossil Hydro Total			181,468.67	181,468.67
SrvCo Gas			108,057.22	108,057.22
SrvCo Gen Support	854,872.43		2,052,437.94	2,907,310.37
SrvCo Nuclear			37,789.08	37,789.08
SrvCo Other	14,266.51	54,560.02	10,152,658.86	10,221,485.39
SrvCo Power Delivery	11,287,764.11	(0.63)	8,118,379.78	19,406,143.26
Q3 2018				
Jul 2018				
100 Org Effectiveness			73,278.49	73,278.49
110 Central Progs Svcs	5.12		3,336,883.73	3,336,888.85
110 Regional Svcs			364,104.89	364,104.89
Corporate Governance DiscOps	2,003.53	21,199.09	3,082,157.74	3,105,360.36
DEC Central Programs Services			26,688.01	26,688.01
DEC Coal Combustion Products			750.00	750.00
DEC Customer	-	3,498.89	329,989.54	333,488.43
DEC Customer Experience	457.91	61,974.76	122,900.15	185,332.82
DEC Environmental	20.54	-	85,774.16	85,794.70
DEC Fleet Maint Svcs			4,395.68	4,395.68
DEC Fossil Hydro		871.20	9,104.92	9,976.12
DEC Gen Ops Support			250.00	250.00
DEC Nuclear	629.56		52,774.79	53,404.35
DEC Org Effectiveness			6,132.60	6,132.60

DEC Other	53.37	(4,764.94)	30,655.58	25,944.01
DEC Other Misc	237.06	37,258.38	31,457.29	68,952.73
DEC Power Delivery	186.27	29,060.01	1,024,914.51	1,054,160.79
DEC Regional Svcs			54,084.04	54,084.04
DEC Wholesale Pwr & Rnwable Gen	184.65	24,733.58	18,239.60	43,157.83
DEF Fossil Hydro			14,702.06	14,702.06
DEF Other	1,910.33	492.25	167,837.84	170,240.42
DEF Power Delivery	7,067.84	177.09	162,177.17	169,422.10
DEF President & Staff			63,293.80	63,293.80
DEF Regional Svcs			40.54	40.54
DEF Retail	3.43		20,368.56	20,371.99
DEI Customer			-	-
DEI Fossil Hydro			445.20	445.20
DEI Power Delivery	2.48		46,435.87	46,438.35
DEK Fossil			918.05	918.05
DEK Power Delivery			(6,173.79)	(6,173.79)
DEP Central Progs Svcs			40,129.48	40,129.48
DEP Environmental			(433.42)	(398.26)
DEP Fossil Hydro	35.16	-	140,059.08	140,059.08
DEP Gen Ops Support			27,025.41	27,025.41
DEP Nuclear			-	-
DEP Other			6,619.08	6,619.08
DEP Power Delivery	20.81	2,423.30	200,845.67	203,289.78
DEP Retail	0.82		7,622.48	7,623.30
Duke Energy Ohio - RU			62,285.61	62,285.61
Marketing & Customer Engagemen			25,541.99	25,541.99
Piedmont Gas - Customer			11,630.79	11,630.79
Piedmont Gas - Delivery	116.40		151,294.07	151,410.47
Piedmont Gas - Other			104,429.22	104,429.22
SrvCo Construct & Proj Mgmt	86.68	20,093.36	298,486.92	318,666.96
SrvCo Customer Service	82.00	539.18	9,215,297.23	9,215,918.41
SrvCo Enterprise Business Svs	901,213.77	5,907,679.88	106,019,633.39	112,828,527.04
SrvCo EnviroHealthSafety	22,582.33	15,599.75	6,128,154.23	6,166,336.31

SrvCo Fossil Hydro Total				217,248.25	217,248.25
SrvCo Gas				125,252.62	125,252.62
SrvCo Gen Support	1,010,072.46			2,382,024.94	3,392,097.40
SrvCo Nuclear				43,451.20	43,451.20
SrvCo Other	16,191.49	63,796.42		11,683,392.73	11,763,380.64
SrvCo Power Delivery	12,951,467.91	(0.78)		9,473,043.32	22,424,510.45
Aug 2018					
100 Org Effectiveness				87,276.98	87,276.98
110 Central Progs Svcs	54.29			3,874,703.21	3,874,757.50
110 Regional Svcs				439,235.10	439,235.10
Corporate Governance DiscOps	2,090.37	25,679.91		3,049,868.49	3,077,638.77
DEC Central Programs Services				55,721.37	55,721.37
DEC Coal Combustion Products				750.00	750.00
DEC Customer	-	3,576.23		389,118.70	392,694.93
DEC Customer Experience	562.75	70,005.06		145,540.05	216,107.86
DEC Environmental	20.54	-		93,968.45	93,988.99
DEC Fleet Maint Svcs				4,395.68	4,395.68
DEC Fossil Hydro		871.20		9,104.92	9,976.12
DEC Gen Ops Support				250.00	250.00
DEC Nuclear	675.66	2,074.20		60,942.75	63,692.61
DEC Org Effectiveness				6,132.60	6,132.60
DEC Other	53.37	(4,764.94)		36,001.58	31,290.01
DEC Other Misc	267.86	44,698.19		34,207.20	79,173.25
DEC Power Delivery	911.39	30,131.06		1,164,995.12	1,196,037.57
DEC Regional Svcs				61,838.10	61,838.10
DEC Wholesale Pwr & Rnwable Gen	207.30	27,768.35		20,262.28	48,237.93
DEF Fossil Hydro				19,409.10	19,409.10
DEF Other	2,485.50	492.26		218,333.93	221,311.69
DEF Power Delivery	7,982.16	177.08		197,109.30	205,268.54
DEF President & Staff				98,002.03	98,002.03
DEF Regional Svcs				153.17	153.17
DEF Retail			3.60	26,564.65	26,568.25
DEI Customer				664.96	664.96

DEI Fossil Hydro		601.02	601.02			
DEI Power Delivery	5,171.51	64,509.11	69,680.62	-		
DEK Fossil		918.05	918.05			
DEK Power Delivery		(6,173.79)	(6,173.79)			
DEP Central Progs Svcs		44,523.26	44,523.26			
DEP Environmental	35.16	285.62	320.78	-		
DEP Fossil Hydro		157,532.51	157,532.51			
DEP Gen Ops Support		27,025.41	27,025.41			
DEP Nuclear		-	-			
DEP Other		3,837.21	3,837.21			
DEP Power Delivery	37.36	250,729.33	253,189.96	2,423.27		
DEP Retail	0.82	11,055.74	11,056.56			
Duke Energy Ohio - Com Power		43.17	43.17			
Duke Energy Ohio - RU		66,404.88	66,404.88			
Marketing & Customer Engagemen		29,623.06	29,623.06			
Piedmont Gas - Customer		13,414.16	13,414.16			
Piedmont Gas - Delivery	122.20	171,285.70	171,407.90			
Piedmont Gas - Other		110,604.10	110,604.10			
SrvCo Construct & Proj Mgmt	100.93	353,966.21	374,160.50	20,093.36		
SrvCo Customer Service	82.60	10,966,780.63	10,967,403.47	540.24		
SrvCo Enterprise Business Svcs	1,033,477.68	122,558,512.85	130,453,520.35	6,861,529.82		
SrvCo EnviroHealthSafety	26,583.38	7,021,034.91	7,068,405.66	20,787.37		
SrvCo Fossil Hydro Total	147.60	252,266.36	252,413.96			
SrvCo Gas		141,328.26	141,328.26			
SrvCo Gen Support	1,176,022.79	2,742,173.95	3,918,196.74			
SrvCo Nuclear		50,115.30	50,115.30			
SrvCo Other	18,272.92	13,381,704.88	13,481,525.43	81,547.63		
SrvCo Power Delivery	15,569,334.18	10,888,805.24	26,458,138.48	(0.94)		
Sep 2018						
100 Org Effectiveness		99,054.43	99,054.43			
110 Central Progs Svcs	54.29	4,360,310.14	4,360,364.43			
110 Regional Svcs		503,905.65	503,905.65			
Corporate Governance DiscOps	1,017.69	3,471,660.96	3,503,731.59	31,052.94		

DEC Central Programs Services				80,007.49	80,007.49
DEC Coal Combustion Products				750.00	750.00
DEC Customer		10,305.54		270,281.15	280,586.69
DEC Customer Experience	667.69	75,457.93		167,908.14	244,033.76
DEC Environmental	20.54	-		109,485.33	109,505.87
DEC Fleet Maint Svcs				4,395.68	4,395.68
DEC Fossil Hydro		871.20		9,588.64	10,459.84
DEC Gen Ops Support				250.00	250.00
DEC Nuclear	696.96	2,074.20		48,083.93	50,855.09
DEC Org Effectiveness				6,132.60	6,132.60
DEC Other	53.37	(4,764.94)		40,180.30	35,468.73
DEC Other Misc	296.63	48,483.22		36,775.62	85,555.47
DEC Power Delivery	861.53	30,131.02		1,083,644.22	1,114,636.77
DEC Regional Svcs				70,023.65	70,023.65
DEC Wholesale Pwr & Rnwable Gen	237.15	31,767.49		22,927.56	54,932.20
DEF Fossil Hydro				2,000.00	2,000.00
DEF Other	2,832.32	492.26		248,776.23	252,100.81
DEF Power Delivery	7,992.96	177.08		238,965.34	247,135.38
DEF President & Staff				1,660.05	1,660.05
DEF Regional Svcs				153.17	153.17
DEF Retail	3.60			31,391.14	31,394.74
DEI Customer				664.96	664.96
DEI Fossil Hydro				601.02	601.02
DEI Power Delivery	6,743.51	-		79,127.23	85,870.74
DEK Fossil				918.05	918.05
DEK Power Delivery				(6,173.79)	(6,173.79)
DEP Central Progs Svcs				49,739.28	49,739.28
DEP Environmental	35.16	-		285.62	320.78
DEP Fossil Hydro				179,643.89	179,643.89
DEP Gen Ops Support				27,025.41	27,025.41
DEP Nuclear				-	-
DEP Other	43.95			3,837.21	3,837.21
DEP Power Delivery		2,516.58		291,747.95	294,308.48

DEP Retail	0.82			11,908.64	11,909.46
Duke Energy Ohio - Com Power				43.17	43.17
Duke Energy Ohio - RU				76,517.85	76,517.85
Marketing & Customer Engagemen				37,374.67	37,374.67
Piedmont Gas - Customer				4,823.57	4,823.57
Piedmont Gas - Delivery	158.66	3,298.97		186,646.87	190,104.50
Piedmont Gas - Other				111,139.58	111,139.58
SrvCo Construct & Proj Mgmt	115.39	20,093.36		403,485.19	423,693.94
SrvCo Customer Service	82.60	540.22		11,924,855.96	11,925,478.78
SrvCo Enterprise Business Sys	1,149,778.22	7,764,798.35	-	137,614,528.67	146,529,105.24
SrvCo EnviroHealthSafety	29,607.69	23,202.60		7,869,480.65	7,922,290.94
SrvCo Fossil Hydro Total	147.60			288,298.19	288,445.79
SrvCo Gas				163,513.29	163,513.29
SrvCo Gen Support	167,434.76			4,261,837.50	4,429,272.26
SrvCo Nuclear				55,066.62	55,066.62
SrvCo Other	21,864.05	91,913.22		15,172,017.32	15,285,794.59
SrvCo Power Delivery	17,322,483.40	(0.98)		12,179,786.09	29,502,268.51
Q4 2018					
Oct 2018					
100 Org Effectiveness				110,184.43	110,184.43
110 Central Progs Svcs	54.29			4,874,192.60	4,874,246.89
110 Regional Svcs				575,424.67	575,424.67
Corporate Governance DiscOps	1,267.61	36,070.18		4,856,928.29	4,894,266.08
DEC Central Programs Services				108,359.62	108,359.62
DEC Coal Combustion Products				750.00	750.00
DEC Customer	-	18,479.59		281,460.30	299,939.89
DEC Customer Experience	778.65	81,345.19		188,147.04	270,270.88
DEC Environmental	20.54	-		122,054.55	122,075.09
DEC Fleet Maint Svcs				4,395.68	4,395.68
DEC Fossil Hydro		871.20		9,588.64	10,459.84
DEC Gen Ops Support				250.00	250.00
DEC Nuclear	723.19	2,074.20		50,149.31	52,946.70
DEC Org Effectiveness				6,132.60	6,132.60

DUKE ENERGY KENTUCKY, INC.
Payroll Labor Costs

DEC Other	53.37	(4,764.94)	44,257.10	39,545.53
DEC Other Misc	328.46	54,903.98	43,607.71	98,840.15
DEC Power Delivery	897.28	30,130.97	1,229,905.06	1,260,933.31
DEC Regional Svcs			76,848.26	76,848.26
DEC Wholesale Pwr & Rnwable Gen	267.13	35,783.81	25,604.18	61,655.12
DEF Fossil Hydro			2,000.00	2,000.00
DEF Other	3,120.92	492.26	274,157.01	277,770.19
DEF Power Delivery	7,996.92	177.08	263,538.42	271,712.42
DEF President & Staff			1,660.05	1,660.05
DEF Regional Svcs			153.17	153.17
DEF Retail	4.19		37,121.92	37,126.11
DEI Customer			664.96	664.96
DEI Fossil Hydro			601.02	601.02
DEI Power Delivery	7,447.84	-	86,779.07	94,226.91
DEK Fossil			918.05	918.05
DEK Power Delivery			(6,173.79)	(6,173.79)
DEP Central Progs Svcs			55,575.36	55,575.36
DEP Environmental	35.16	-	285.62	320.78
DEP Fossil Hydro			200,726.38	200,726.38
DEP Gen Ops Support			27,025.41	27,025.41
DEP Nuclear	12.54		1,119.96	1,132.50
DEP Other			4,225.62	4,225.62
DEP Power Delivery	48.21	2,728.65	333,381.89	336,158.75
DEP Retail	0.82		13,021.61	13,022.43
Duke Energy Ohio - Com Power			733.89	733.89
Duke Energy Ohio - RU			86,739.99	86,739.99
Marketing & Customer Engagemen			37,395.25	37,395.25
Piedmont Gas - Customer			5,806.31	5,806.31
Piedmont Gas - Delivery	264.81	5,130.46	210,895.58	216,290.85
Piedmont Gas - Other			111,139.58	111,139.58
SrvCo Construct & Proj Mgmt	130.70	20,093.36	458,667.38	478,891.44
SrvCo Customer Service	82.60	578.51	13,088,621.68	13,089,282.79
SrvCo Enterprise Business Svcs	1,269,193.86	9,552,803.52	152,288,273.26	163,110,270.64

SrvCo EnviroHealthSafety	32,457.90	26,922.00	8,770,838.80	8,830,218.70
SrvCo Fossil Hydro Total	1,578.10		323,365.48	324,943.58
SrvCo Gas			180,021.55	180,021.55
SrvCo Gen Support	322,952.90		4,617,311.14	4,940,264.04
SrvCo Nuclear			61,430.25	61,430.25
SrvCo Other	23,991.60	105,912.05	16,864,348.24	16,994,251.89
SrvCo Power Delivery	19,166,690.24	117.41	13,579,964.38	32,746,772.03
Nov 2018				
100 Org Effectiveness			117,985.34	117,985.34
110 Central Progs Svcs	236.40		5,319,459.25	5,319,695.65
110 Regional Svcs			632,471.38	632,471.38
Corporate Governance DiscOps	1,267.61	43,155.36	6,183,871.92	6,228,294.89
DE Renewables & Transmission			6,527.74	6,527.74
DEC Central Programs Services			23,766.84	23,766.84
DEC Coal Combustion Products			750.00	750.00
DEC Customer	-	26,151.23	337,729.21	363,880.44
DEC Customer Experience	778.65	92,470.78	205,980.49	299,229.92
DEC Environmental	20.54	-	133,350.07	133,370.61
DEC Fleet Maint Svcs			4,395.68	4,395.68
DEC Fossil Hydro		871.20	4,135.44	5,006.64
DEC Gen Ops Support			250.00	250.00
DEC Nuclear	723.19	2,074.20	54,260.23	57,057.62
DEC Org Effectiveness			6,132.60	6,132.60
DEC Other	53.37	(4,764.94)	48,206.50	43,494.93
DEC Other Misc	328.46	61,324.76	46,217.53	107,870.75
DEC Power Delivery	897.28	30,130.87	1,338,421.39	1,369,449.54
DEC President & Staff			2,418.40	2,418.40
DEC Regional Svcs			90,864.83	90,864.83
DEC Wholesale Pwr & Rnwable Gen	267.13	39,343.33	28,003.12	67,613.58
DEF Fossil Hydro			2,000.00	2,000.00
DEF Other	3,120.92	1,316.72	303,616.20	308,053.84
DEF Power Delivery	7,996.92	177.07	291,091.80	299,265.79
DEF President & Staff			1,660.05	1,660.05

DEF Regional Svcs				3,552.82	3,552.82
DEF Retail	4.19			42,905.04	42,909.23
DEI Customer				664.96	664.96
DEI Fossil Hydro				601.02	601.02
DEI Power Delivery	7,447.84	-		104,187.76	111,635.60
DEK Fossil				918.05	918.05
DEK Power Delivery				(6,173.79)	(6,173.79)
DEP Central Progs Svcs		486.70		59,663.61	60,150.31
DEP Environmental	35.16	-		285.62	320.78
DEP Fossil Hydro				221,663.93	221,663.93
DEP Gen Ops Support				27,025.41	27,025.41
DEP Nuclear	12.54			1,119.96	1,132.50
DEP Other				10,844.70	10,844.70
DEP Power Delivery	48.21	2,728.63		374,259.47	377,036.31
DEP Regional Svcs				5,861.48	5,861.48
DEP Retail	0.82			13,562.78	13,563.60
Duke Energy Ohio - Com Power				733.89	733.89
Duke Energy Ohio - RU		0.03		96,209.66	96,209.69
Marketing & Customer Engagemen		-		40,691.80	40,691.80
Piedmont Gas - Customer				6,341.10	6,341.10
Piedmont Gas - Delivery	264.81	9,352.10		229,700.89	239,317.80
Piedmont Gas - Other				116,610.10	116,610.10
SrvCo Construct & Proj Mgmt	130.70	20,093.36		508,311.18	528,535.24
SrvCo Customer Service	82.60	635.88		14,329,681.03	14,330,399.51
SrvCo Enterprise Business Svcs	1,311,594.84	10,461,492.05		166,184,876.65	177,957,963.54
SrvCo EnviroHealthSafety	34,670.16	32,479.04		9,548,625.44	9,615,774.64
SrvCo Fossil Hydro Total	2,734.04			353,415.24	356,149.28
SrvCo Gas				187,748.53	187,748.53
SrvCo Gen Support	471,038.53			4,926,655.55	5,397,694.08
SrvCo Nuclear				67,308.73	67,308.73
SrvCo Other	23,991.60	122,248.95		18,362,894.57	18,509,135.12
SrvCo Power Delivery	21,052,405.04	1,597.37		14,929,108.12	35,983,110.53
Dec 2018					

100 Org Effectiveness				126,405.36	126,405.36
110 Central Progs Svcs	236.40			5,638,884.69	5,639,121.09
110 Regional Svcs				674,630.30	674,630.30
Corporate Governance DiscOps	1,583.01	76,622.98		7,083,124.47	7,161,330.46
DE Renewables & Transmission				9,911.98	9,911.98
DEC Central Programs Services				41,882.34	41,882.34
DEC Coal Combustion Products				750.00	750.00
DEC Customer	76.33	28,850.62		327,458.36	356,385.31
DEC Customer Experience	943.08	97,677.09		221,525.03	320,145.20
DEC Environmental	20.54	-		144,099.01	144,119.55
DEC Fleet Maint Svcs				4,395.68	4,395.68
DEC Fossil Hydro		871.20		9,476.99	10,348.19
DEC Gen Ops Support				1,250.00	1,250.00
DEC Nuclear	783.80	2,074.20		56,875.13	59,733.13
DEC Org Effectiveness				6,132.60	6,132.60
DEC Other	53.37	(4,764.94)		51,984.92	47,273.35
DEC Other Misc	378.64	65,512.96		48,090.63	113,982.23
DEC Power Delivery	911.75	121,582.45		1,429,361.24	1,551,855.44
DEC President & Staff				6,567.44	6,567.44
DEC Regional Svcs				94,861.43	94,861.43
DEC Wholesale Pwr & Rnwable Gen	316.80	42,437.14		29,721.81	72,475.75
DEF Fossil Hydro				2,545.50	2,545.50
DEF Other	3,717.38	1,917.78		326,702.42	332,337.58
DEF Power Delivery	8,613.65	177.06		306,155.71	314,946.42
DEF President & Staff				1,660.05	1,660.05
DEF Regional Svcs				3,552.82	3,552.82
DEF Retail	4.19			38,412.08	38,416.27
DEI Customer				664.96	664.96
DEI Fossil Hydro				601.02	601.02
DEI Power Delivery	7,460.49	-		96,213.26	103,673.75
DEK Fossil				918.05	918.05
DEK Power Delivery				(6,173.79)	(6,173.79)
DEP Central Progs Svcs		486.70		62,289.77	62,776.47

DEP Environmental	35.16	-	7,785.62	7,820.78
DEP Fossil Hydro			232,971.60	232,971.60
DEP Gen Ops Support			27,025.41	27,025.41
DEP Nuclear	12.54		1,119.96	1,132.50
DEP Other			-	-
DEP Power Delivery	105.30	4,396.83	339,587.56	344,089.69
DEP Regional Svcs			5,861.48	5,861.48
DEP Retail	0.82		13,182.09	13,182.91
Duke Energy Ohio - Com Power			733.89	733.89
Duke Energy Ohio - RU		1,789.63	104,457.84	106,247.47
Marketing & Customer Engagemen		6,000.08	43,047.62	49,047.70
Piedmont Gas - Customer			6,341.10	6,341.10
Piedmont Gas - Delivery	465.44	9,352.10	242,673.19	252,490.73
Piedmont Gas - Other	116.76		122,164.42	122,281.18
SrvCo Construct & Proj Mgmt	160.96	20,093.36	550,992.48	571,246.80
Srvco Customer Service	83.30	218,777.19	15,252,692.91	15,471,553.40
SrvCo Enterprise Business Svs	1,463,867.64	12,627,208.62	176,639,591.91	190,730,668.17
SrvCo EnviroHealthSafety	36,750.95	35,320.61	10,219,679.90	10,291,751.46
SrvCo Fossil Hydro Total	2,734.04		369,851.22	372,585.26
SrvCo Gas			197,125.93	197,125.93
SrvCo Gen Support	16,846.96		5,760,943.79	5,777,790.75
SrvCo Nuclear			71,580.07	71,580.07
SrvCo Other	27,395.19	184,137.89	19,694,503.36	19,906,036.44
SrvCo Power Delivery	22,636,363.44	3,421.21	16,078,071.84	38,717,856.49
Grand Total	24,210,037.93	13,543,942.76	262,822,916.45	300,576,897.14

Actual - 12 months ending December 2017

See second query for department detail

Business Unit Hierarchy	Duke Energy Kentucky Electric				
	ASSET - Assets	CAPITAL - Capital	INDIRECT - Indirect	O&M and Other Expenses	Grand Total
Q1 2017					
Jan 2017	\$ 1,633,736.43	\$ 484,922.31	\$ 12,095.93	\$ 17,666,589.80	\$ 19,797,344.47
Feb 2017	3,773,878.79	1,152,680.78	20,704.83	36,296,549.93	41,243,814.33
Mar 2017	6,547,338.44	2,071,610.11	9,226.76	56,812,431.37	65,440,606.68
Q2 2017					
Apr 2017	8,462,689.77	2,784,686.84	9,226.76	75,621,015.41	86,877,618.78
May 2017	10,433,428.10	3,699,972.84	9,226.76	94,832,180.12	108,974,807.82
Jun 2017	12,315,695.89	4,549,342.02	9,226.76	114,532,845.61	131,407,110.28
Q3 2017					
Jul 2017	14,164,196.16	5,215,870.54	9,226.76	131,811,631.00	151,200,924.46
Aug 2017	16,265,801.93	6,030,692.41	12,226.76	151,028,143.15	173,336,864.25
Sep 2017	18,156,348.27	6,805,857.69	12,226.76	171,317,958.52	196,292,391.24
Q4 2017					
Oct 2017	20,689,282.93	7,680,608.98	12,226.76	191,815,429.03	220,197,547.70
Nov 2017	22,276,520.88	8,321,915.77	-	211,398,767.15	241,997,203.80
Dec 2017	23,879,133.25	9,785,562.68	-	224,518,155.59	258,182,851.52
Grand Total	\$ 23,879,133.25	\$ 9,785,562.68	\$ -	\$ 224,518,155.59	\$ 258,182,851.52

Business Unit Hierarchy	Duke Energy Kentucky Electric				
	ASSET - Assets	CAPITAL - Capital	INDIRECT - Indirect	O&M and Other Expenses	Grand Total
Q1 2017					
Jan 2017					
100 Org Effectiveness				\$ 42,791.89	\$ 42,791.89
110 Central Progs Svcs				399,649.14	399,649.14

110 Regional Svcs			72,039.34	72,039.34
Corporate Governance DiscOps	132.94		(330,025.56)	(329,892.62)
DE Renewables & Transmission			557.75	557.75
DEC Central Programs Services			23,583.25	23,583.25
DEC Customer	(47.66)		26,363.54	26,315.88
DEC Customer Experience			2,059.90	2,059.90
DEC Environmental			17,677.09	17,677.09
DEC Fossil Hydro			1,334.78	1,334.78
DEC Gen Ops Support			211.38	211.38
DEC Nuclear	23.59		2,204.74	2,228.33
DEC Other		(0.01)	25,607.50	25,607.49
DEC Other Misc			4,397.67	4,397.67
DEC Power Delivery	22.30	-	151,035.85	151,058.15
DEF Other	(38.86)		(11,373.38)	(11,412.24)
DEF Power Delivery	534.09	(493.85)	(29,561.75)	(29,521.51)
DEI Power Delivery		(0.01)	64.82	64.81
DEP Central Progs Svcs			5,229.88	5,229.88
DEP Environmental			876.33	876.33
DEP Fossil Hydro			(4,281.06)	(4,281.06)
DEP Gen Ops Support			44,313.54	44,313.54
DEP Nuclear			25,769.68	25,769.68
DEP Org Effectiveness			11,646.18	11,646.18
DEP Power Delivery			12,716.40	12,720.42
Piedmont Gas - Other	4.03	(0.01)	13,908.47	13,908.47
SrvCo Construct & Proj Mgmt	8.52		44,302.02	44,310.54
SrvCo Customer Service	112.07		901,585.67	901,697.74
SrvCo Enterprise Business Svs	103,425.61	473,021.29	12,600,027.09	13,188,569.92
SrvCo EnviroHealthSafety	2,061.70		895,961.13	898,022.83
SrvCo Fossil Hydro Total			9,935.78	9,935.78
SrvCo Gen Support	71,046.68		201,596.78	272,643.46
SrvCo Nuclear			21,777.80	21,777.80
SrvCo Other	2,627.48	539.55	1,442,722.83	1,445,889.86
SrvCo Power Delivery	1,453,823.94	11,855.35	1,039,883.33	2,505,562.62

Feb 2017				
100 Org Effectiveness			88,813.22	88,813.22
110 Central Progs Svcs			808,358.22	808,358.22
110 Regional Svcs			135,626.54	135,626.54
Corporate Governance DiscOps	246.50		(634,408.31)	(634,161.81)
DE Renewables & Transmission			557.75	557.75
DEC Central Programs Services			39,964.92	39,964.92
DEC Customer	(47.66)	5,550.00	42,846.38	48,348.72
DEC Customer Experience		2,524.82	6,973.84	9,498.66
DEC Environmental			34,499.11	34,499.11
DEC Fossil Hydro			3,546.53	3,546.53
DEC Gen Ops Support			287.80	287.80
DEC Nuclear	84.52		6,698.35	6,782.87
DEC Org Effectiveness			983.18	983.18
DEC Other		(0.01)	54,565.93	54,565.92
DEC Other Misc			4,397.67	4,397.67
DEC Power Delivery	110.69	0.01	276,400.63	276,511.33
DEF Other	197.92		7,394.00	7,591.92
DEF Power Delivery	2,857.38	(493.85)	(32,471.96)	(30,108.43)
DEI Customer	2.92		283.62	286.54
DEI Power Delivery	7.63	-	3,211.86	3,219.49
DEP Central Progs Svcs			10,771.18	10,771.18
DEP Environmental			4,471.53	4,471.53
DEP Fossil Hydro			(4,281.06)	(4,281.06)
DEP Gen Ops Support			83,495.10	83,495.10
DEP Nuclear			25,769.68	25,769.68
DEP Org Effectiveness			23,827.80	23,827.80
DEP Power Delivery	8.23	(0.01)	27,074.17	27,082.39
DEP Regional Svcs			407.70	407.70
DEP Retail			(250.00)	(250.00)
Piedmont Gas - Delivery		3,817.31	259.62	4,076.93
Piedmont Gas - Other		763.46	56,231.61	56,995.07
SrvCo Construct & Proj Mgmt	19.60		94,953.94	94,973.54

SrvCo Customer Service	232.86	(0.02)	1,920,811.04	1,921,043.88
SrvCo Enterprise Business Svs	221,139.94	1,124,786.42	25,710,304.16	27,076,935.35
SrvCo EnviroHealthSafety	4,491.64	4,255.45	1,884,564.97	1,893,312.06
SrvCo Fossil Hydro Total	149,046.88		21,610.08	21,610.08
SrvCo Gen Support			436,344.77	585,391.65
SrvCo Nuclear			44,471.52	44,471.52
SrvCo Other	5,175.56	7,086.63	2,988,145.40	3,000,407.59
SrvCo Power Delivery	3,390,304.18	4,390.57	2,119,037.44	5,513,732.19
Mar 2017				
100 Org Effectiveness			139,990.54	139,990.54
110 Central Progs Svcs			1,220,323.43	1,220,323.43
110 Regional Svcs			205,996.30	205,996.30
Corporate Governance DiscOps	354.17		(883,212.21)	(882,858.04)
DE Renewables & Transmission			557.75	557.75
DEC Central Programs Services	(47.66)	5,550.00	56,816.00	56,816.00
DEC Customer		2,524.82	24,148.91	29,651.25
DEC Customer Experience			7,612.90	10,137.72
DEC Environmental			51,803.34	51,803.34
DEC Fossil Hydro			4,010.19	4,010.19
DEC Gen Ops Support			287.80	287.80
DEC Nuclear	196.53		17,606.03	17,802.56
DEC Org Effectiveness		(0.01)	5,044.15	5,044.15
DEC Other			99,429.39	99,429.38
DEC Other Misc			5,647.67	5,647.67
DEC Power Delivery	(285.26)	(0.01)	380,696.11	380,410.84
DEF Other	623.04		45,907.26	46,530.30
DEF Power Delivery	1,753.22	(493.85)	(76,623.27)	(75,363.90)
DEF Retail			(1,385.97)	(1,385.97)
DEI Customer	2.92		283.62	286.54
DEI Power Delivery	8,291.12	-	9,075.23	17,366.35
DEP Central Progs Svcs			16,206.08	16,206.08
DEP Environmental			9,369.99	9,369.99
DEP Fossil Hydro			(4,281.06)	(4,281.06)

DEP Gen Ops Support				121,357.51	121,357.51
DEP Nuclear				25,769.68	25,769.68
DEP Org Effectiveness				36,009.42	36,009.42
DEP Power Delivery	14.62	(0.03)		45,793.11	45,807.70
DEP Regional Svcs				407.70	407.70
DEP Retail				(250.00)	(250.00)
Marketing & Customer Engagemen				(5,839.00)	(5,839.00)
Piedmont Gas - Delivery		11,618.39		34,934.57	46,552.96
Piedmont Gas - Other		1,950.27		120,889.53	122,839.80
SrvCo Construct & Proj Mgmt	31.54			148,722.53	148,754.07
SrvCo Customer Service	382.66	(0.03)		3,198,479.43	3,198,862.06
SrvCo Enterprise Business Svs	350,903.65	1,995,207.62	9,226.76	39,954,182.01	42,309,520.04
SrvCo EnviroHealthSafety	7,587.77	37,527.52		2,873,688.00	2,918,803.29
SrvCo Fossil Hydro Total				33,792.14	33,792.14
SrvCo Gen Support	89,448.36			825,350.88	914,799.24
SrvCo Nuclear				67,623.76	67,623.76
SrvCo Other	8,088.42	13,311.07		4,669,147.88	4,690,547.37
SrvCo Power Delivery	6,079,993.34	4,414.35		3,327,062.04	9,411,469.73
Q2 2017					
Apr 2017					
100 Org Effectiveness				192,781.30	192,781.30
110 Central Progs Svcs				1,605,058.76	1,605,058.76
110 Regional Svcs				276,784.12	276,784.12
Corporate Governance DiscOps	443.24			170,459.29	170,902.53
DE Renewables & Transmission				557.75	557.75
DEC Central Programs Services	(47.66)	6,050.00		77,612.89	77,612.89
DEC Customer		2,524.82		32,559.29	38,561.63
DEC Customer Experience				8,550.42	11,075.24
DEC Environmental				74,324.64	74,324.64
DEC Fossil Hydro				5,812.97	5,812.97
DEC Gen Ops Support				287.80	287.80
DEC Nuclear	315.20			29,971.59	30,286.79
DEC Org Effectiveness				5,044.15	5,044.15

DUKE ENERGY KENTUCKY, INC.
Payroll Labor Costs

DEC Other			(0.02)	126,655.22	126,655.20
DEC Other Misc				5,647.67	5,647.67
DEC Power Delivery	(276.89)		860.19	451,823.31	452,406.61
DEF Other	513.27		260.70	35,976.77	36,750.74
DEF Power Delivery	2,217.98		(493.85)	(59,022.31)	(57,298.18)
DEF Retail				(1,391.11)	(1,391.11)
DEI Customer	2.92			283.62	286.54
DEI Fossil Hydro				747.30	747.30
DEI Power Delivery	13,810.30		-	17,616.06	31,426.36
DEP Central Progs Svcs				20,331.91	20,331.91
DEP Environmental				12,875.31	12,875.31
DEP Fossil Hydro				(4,281.06)	(4,281.06)
DEP Gen Ops Support				163,973.87	163,973.87
DEP Nuclear				25,769.68	25,769.68
DEP Org Effectiveness				36,009.42	36,009.42
DEP Power Delivery	18.07		(0.03)	62,736.60	62,754.64
DEP Regional Svcs				407.70	407.70
DEP Retail				(219.57)	(219.57)
Marketing & Customer Engagemen				(5,231.55)	(5,231.55)
Piedmont Gas - Delivery			18,639.38	76,549.37	95,188.75
Piedmont Gas - Other			1,755.26	163,254.83	165,010.09
SrvCo Construct & Proj Mgmt	41.34			197,926.09	197,967.43
SrvCo Customer Service	480.97		(0.04)	4,188,205.37	4,188,686.30
SrvCo Enterprise Business Svs	461,080.56		2,692,912.74	52,118,912.97	55,282,133.03
SrvCo EnviroHealthSafety	9,812.47		41,146.49	3,787,548.89	3,838,507.85
SrvCo Fossil Hydro Total				33,792.14	33,792.14
SrvCo Gas				346.88	346.88
SrvCo Gen Support	140,548.24			989,724.94	1,130,273.18
SrvCo Nuclear				89,035.55	89,035.55
SrvCo Other	10,565.32		16,616.89	6,190,636.10	6,217,818.31
SrvCo Power Delivery	7,823,164.44		4,414.31	4,414,568.47	12,242,147.22
May 2017					
100 Org Effectiveness				252,812.98	252,812.98

110 Central Progs Svcs				2,043,453.45	2,043,453.45
110 Regional Svcs				350,553.04	350,553.04
Corporate Governance DiscOps	546.59	48.09		1,253,854.40	1,254,449.08
DE Renewables & Transmission				557.75	557.75
DEC Central Programs Services				98,040.89	98,040.89
DEC Customer	(47.66)	6,050.00		35,641.66	41,644.00
DEC Customer Experience		2,524.82		9,714.61	12,239.43
DEC Environmental				87,820.38	87,820.38
DEC Fossil Hydro				9,049.86	9,049.86
DEC Gen Ops Support				287.80	287.80
DEC Nuclear	364.19			34,549.35	34,913.54
DEC Org Effectiveness				5,044.15	5,044.15
DEC Other		(0.02)		152,213.76	152,213.74
DEC Other Misc				4,397.67	4,397.67
DEC Power Delivery	(266.28)	5,556.04		522,911.04	528,200.80
DEC Wholesale Pwr & Rnwable Gen	13.31			1,292.62	1,305.93
DEF Gen Ops Support				1,500.00	1,500.00
DEF Other	805.65	260.70		62,754.02	63,820.37
DEF Power Delivery	2,223.20	(493.85)		(57,787.70)	(56,058.35)
DEF Retail				(1,391.11)	(1,391.11)
DEI Customer	2.92			283.62	286.54
DEI Fossil Hydro				747.30	747.30
DEI Power Delivery	16,787.44	0.01		27,742.51	44,529.96
DEP Central Progs Svcs				25,761.43	25,761.43
DEP Environmental				15,212.19	15,212.19
DEP Fossil Hydro				(4,281.06)	(4,281.06)
DEP Gen Ops Support				206,652.32	206,652.32
DEP Nuclear				25,769.68	25,769.68
DEP Org Effectiveness				36,009.42	36,009.42
DEP Power Delivery	37.47	(0.03)		90,619.38	90,656.82
DEP Regional Svcs				407.70	407.70
DEP Retail				(219.57)	(219.57)
Marketing & Customer Engagemen				(4,612.58)	(4,612.58)

Piedmont Gas - Customer				612.86	612.86
Piedmont Gas - Delivery	25,660.36			118,679.52	144,339.88
Piedmont Gas - Other	2,808.39			245,146.35	247,954.74
SrvCo Construct & Proj Mgmt		52.52		249,169.26	249,221.78
SrvCo Customer Service		274.89		5,190,179.12	5,220,563.92
SrvCo Enterprise Business Svs	3,559,572.77		9,226.76	64,448,927.45	68,580,567.57
SrvCo EnviroHealthSafety	12,907.10			4,705,671.47	4,764,230.15
SrvCo Fossil Hydro Total				33,792.14	33,792.14
SrvCo Gas				1,272.64	1,272.64
SrvCo Gen Support	202,734.43			1,178,161.33	1,380,895.76
SrvCo Nuclear				108,002.76	108,002.76
SrvCo Other	12,930.69			7,779,230.55	7,809,971.10
SrvCo Power Delivery	9,621,221.05			5,485,971.71	15,111,606.97
Jun 2017					
100 Org Effectiveness				321,801.92	321,801.92
110 Central Progs Srvcs				2,514,909.10	2,514,909.10
110 Regional Srvcs				431,685.85	431,685.85
Corporate Governance DiscOps		617.83	48.09	2,374,557.00	2,375,222.92
DE Renewables & Transmission				557.75	557.75
DEC Central Programs Services				119,258.68	119,258.68
DEC Customer		(47.66)	16.72	7,141.28	7,110.34
DEC Customer Experience			2,990.14	5,707.14	8,697.28
DEC Environmental				107,691.93	107,691.93
DEC Fossil Hydro				12,034.91	12,034.91
DEC Gen Ops Support				287.80	287.80
DEC Nuclear		407.05		38,921.04	39,328.09
DEC Org Effectiveness				5,044.15	5,044.15
DEC Other			(0.03)	178,883.50	178,883.47
DEC Other Misc				4,397.67	4,397.67
DEC Power Delivery		(253.87)	7,631.43	584,241.59	591,619.15
DEC Wholesale Pwr & Rnwable Gen		73.34		7,120.40	7,193.74
DEF Gen Ops Support				1,500.00	1,500.00
DEF Other		1,025.77	260.70	82,720.25	84,006.72

DEF Power Delivery	3,318.20	(493.85)	(56,594.86)	(53,770.51)
DEF Retail			(1,391.11)	(1,391.11)
DEI Customer	2.92		283.62	286.54
DEI Fossil Hydro			747.30	747.30
DEI Power Delivery	18,257.79	0.01	47,347.87	65,605.67
DEP Central Progs Svcs			31,452.29	31,452.29
DEP Environmental			15,212.19	15,212.19
DEP Fossil Hydro			6,237.63	6,237.63
DEP Gen Ops Support			246,694.66	246,694.66
DEP Nuclear			25,769.68	25,769.68
DEP Org Effectiveness			36,009.42	36,009.42
DEP Power Delivery	41.81	2,062.95	130,102.90	132,207.66
DEP Regional Svcs			407.70	407.70
DEP Retail			(219.57)	(219.57)
Marketing & Customer Engagemen			(4,897.03)	(4,897.03)
Piedmont Gas - Customer			1,293.91	1,293.91
Piedmont Gas - Delivery		32,681.35	163,778.08	196,459.43
Piedmont Gas - Other		3,510.45	476,130.26	479,640.71
SrvCo Construct & Proj Mgmt	62.58		291,769.76	291,832.34
SrvCo Customer Service	381.79	36,159.90	6,130,709.05	6,167,250.74
SrvCo Enterprise Business Svcs	671,753.04	4,387,200.15	77,154,154.06	82,222,334.01
SrvCo EnviroHealthSafety	16,180.03	53,276.35	5,599,597.30	5,669,053.68
SrvCo Fossil Hydro Total			33,792.14	33,792.14
SrvCo Gas			2,387.90	2,387.90
SrvCo Gen Support	264,880.18		1,379,584.79	1,644,464.97
SrvCo Nuclear			127,924.05	127,924.05
SrvCo Other	14,849.84	19,583.51	9,349,808.10	9,384,241.45
SrvCo Power Delivery	11,324,145.25	4,414.15	6,546,291.56	17,874,850.96
Q3 2017				
Jul 2017				
100 Org Effectiveness			377,080.70	377,080.70
110 Central Progs Svcs			2,960,025.76	2,960,025.76
110 Regional Svcs			511,546.84	511,546.84

Corporate Governance DiscOps	714.35	48.09	2,222,821.67	2,223,584.11
DE Renewables & Transmission			557.75	557.75
DEC Central Programs Services			137,295.33	137,295.33
DEC Customer	(82.42)	6,124.36	18,352.65	24,394.59
DEC Customer Experience		3,686.58	6,375.72	10,062.30
DEC Environmental			123,189.46	123,189.46
DEC Fossil Hydro			13,525.15	13,525.15
DEC Gen Ops Support			287.80	287.80
DEC Nuclear	432.26		41,043.46	41,475.72
DEC Org Effectiveness			5,044.15	5,044.15
DEC Other		(0.03)	182,227.50	182,227.47
DEC Other Misc			4,397.67	4,397.67
DEC Power Delivery	(242.82)	13,275.48	634,016.34	647,049.00
DEC Regional Svcs			347.58	347.58
DEC Wholesale Pwr & Rnwable Gen	128.77		12,501.51	12,630.28
DEF Gen Ops Support			1,500.00	1,500.00
DEF Other	1,284.24	260.70	106,221.00	107,765.94
DEF Power Delivery	3,321.04	(493.85)	(55,611.21)	(52,784.02)
DEF Retail			(1,160.14)	(1,160.14)
DEI Customer	2.92		283.62	286.54
DEI Fossil Hydro			1,213.70	1,213.70
DEI Power Delivery	19,531.80	0.01	66,353.23	85,885.04
DEP Central Progs Svcs			36,822.92	36,822.92
DEP Environmental		747.60	15,212.19	15,959.79
DEP Fossil Hydro			19,694.49	19,694.49
DEP Gen Ops Support			278,385.85	278,385.85
DEP Nuclear			25,769.68	25,769.68
DEP Org Effectiveness			68,042.93	68,042.93
DEP Power Delivery	44.80	5,889.52	158,796.33	164,730.65
DEP Regional Svcs			407.70	407.70
DEP Retail			(504.02)	(504.02)
Marketing & Customer Engagemen			(4,682.56)	(4,682.56)
Piedmont Gas - Customer			8,616.78	8,616.78

Piedmont Gas - Delivery	60,042.77	280,649.49	340,692.26
Piedmont Gas - Other	2,048.64	641,570.76	643,619.40
SrvCo Construct & Proj Mgmt	73.80	332,393.72	332,467.52
SrvCo Customer Service	485.16	7,139,241.26	7,169,976.03
SrvCo Enterprise Business Svcs	775,421.39	89,008,933.87	94,801,846.65
SrvCo EnviroHealthSafety	19,851.53	6,424,830.82	6,506,250.15
SrvCo Fossil Hydro Total		34,520.96	34,520.96
SrvCo Gas	7.73	8,393.30	8,401.03
SrvCo Gen Support	345,154.89	1,597,571.98	1,942,726.87
SrvCo Nuclear		145,198.51	145,198.51
SrvCo Other	15,469.73	10,684,133.88	10,719,199.62
SrvCo Power Delivery	12,982,596.99	7,538,192.92	20,525,352.53
Aug 2017			
100 Org Effectiveness		443,191.45	443,191.45
110 Central Progs Svcs	48.31	3,507,478.69	3,507,527.00
110 Regional Svcs		604,953.02	604,953.02
Corporate Governance DiscOps	776.36	2,085,293.04	2,086,117.49
DE Renewables & Transmission		557.75	557.75
DEC Central Programs Services	(82.42)	156,598.40	156,598.40
DEC Customer		20,760.32	27,896.06
DEC Customer Experience		11,234.12	19,016.63
DEC Environmental		138,669.52	139,596.60
DEC Fossil Hydro		27,412.81	27,412.81
DEC Gen Ops Support		287.80	287.80
DEC Nuclear	528.64	50,051.36	50,580.00
DEC Org Effectiveness		5,044.15	5,044.15
DEC Other	(0.03)	105,325.39	105,325.36
DEC Other Misc		4,397.67	4,397.67
DEC Power Delivery	(216.88)	673,028.22	697,771.01
DEC Regional Svcs		1,006.74	1,006.74
DEC Wholesale Pwr & Rnwable Gen	185.21	17,980.62	18,165.83
DEF Gen Ops Support		1,500.00	1,500.00
DEF Other	1,546.29	130,054.13	132,498.24

DEF Power Delivery	3,926.21	(493.85)	(53,528.24)	(50,095.88)
DEF Retail			(1,160.14)	(1,160.14)
DEI Customer	2.92		283.62	286.54
DEI Fossil Hydro			1,446.90	1,446.90
DEI Power Delivery	20,922.57	0.01	93,201.11	114,123.69
DEK Power Delivery	2.15		5,251.65	5,253.80
DEP Central Progs Svcs		2,692.34	41,160.19	41,160.19
DEP Environmental			16,141.79	18,834.13
DEP Fossil Hydro			53,453.50	53,453.50
DEP Gen Ops Support			319,514.74	319,514.74
DEP Nuclear			25,769.68	25,769.68
DEP Org Effectiveness			68,042.93	68,042.93
DEP Power Delivery	53.17	15,630.82	193,200.89	208,884.88
DEP Regional Svcs			407.70	407.70
DEP Retail			(504.02)	(504.02)
Duke Energy Ohio - RU			1,000.00	1,000.00
Marketing & Customer Engagemen			(4,209.00)	(4,209.00)
Piedmont Gas - Customer			7,857.54	7,857.54
Piedmont Gas - Delivery		68,534.59	311,674.46	380,209.05
Piedmont Gas - Other	5.63	7,132.98	732,324.23	739,462.84
SrvCo Construct & Proj Mgmt	86.65		378,072.17	378,158.82
SrvCo Customer Service	592.87	30,345.72	8,329,460.82	8,360,399.41
SrvCo Enterprise Business Svcs	882,302.67	5,771,020.02	102,094,399.69	108,756,949.14
SrvCo EnviroHealthSafety	24,722.45	69,544.29	7,341,032.88	7,435,299.62
SrvCo Fossil Hydro Total			34,606.90	34,606.90
SrvCo Gas	7.32		9,114.87	9,122.19
SrvCo Gen Support	461,602.73		1,900,823.69	2,362,426.42
SrvCo Nuclear			158,650.47	158,650.47
SrvCo Other	17,537.41	19,749.93	12,288,681.99	12,325,969.33
SrvCo Power Delivery	14,851,251.67	4,702.26	8,697,144.94	23,556,098.87
		3,000.00		
Sep 2017				
100 Org Effectiveness			501,058.42	501,058.42
110 Central Progs Svcs	52.76	174.76	4,169,991.92	4,170,219.44

110 Regional Svcs				685,282.71	685,282.71
Corporate Governance DiscOps	824.99	5,062.37		2,327,062.47	2,332,949.83
DE Renewables & Transmission				557.75	557.75
DEC Central Programs Services	(47.66)	1,917.80		175,207.72	175,207.72
DEC Customer				(18,108.38)	(16,238.24)
DEC Customer Experience		9,989.32		13,266.48	23,255.80
DEC Environmental		3,692.64		150,471.82	154,164.46
DEC Fossil Hydro				42,603.59	42,603.59
DEC Gen Ops Support				287.80	287.80
DEC Nuclear	644.78			60,905.47	61,550.25
DEC Org Effectiveness				5,044.15	5,044.15
DEC Other		(0.03)		110,627.39	110,627.36
DEC Other Misc	5.02			4,885.11	4,890.13
DEC Power Delivery	(201.14)	30,265.01		705,512.36	735,576.23
DEC Regional Svcs				1,006.74	1,006.74
DEC Wholesale Pwr & Rnwable Gen	245.28			23,812.90	24,058.18
DEF Fossil Hydro				433.17	433.17
DEF Gen Ops Support				1,500.00	1,500.00
DEF Other	1,998.43	897.82		171,188.95	174,085.20
DEF Power Delivery	4,303.32	(493.85)		(55,912.79)	(52,103.32)
DEF Retail				(1,437.58)	(1,437.58)
DEI Customer	2.92			283.62	286.54
DEI Fossil Hydro				2,082.90	2,082.90
DEI Power Delivery	26,091.42	0.02		123,468.04	149,559.48
DEK Power Delivery	4.13			10,095.82	10,099.95
DEP Central Progs Svcs		5,685.00		46,530.87	46,530.87
DEP Environmental				16,141.79	21,826.79
DEP Fossil Hydro				76,494.78	76,494.78
DEP Gen Ops Support	2.07			361,800.60	361,802.67
DEP Nuclear				28,185.09	28,185.09
DEP Org Effectiveness				68,042.93	68,042.93
DEP Power Delivery	60.74	17,522.95		199,994.14	217,577.83
DEP Regional Svcs				407.70	407.70

DEP Retail	(219.57)		(219.57)		(219.57)
Duke Energy Ohio - RU	1,112.00		1,112.00		1,112.00
Marketing & Customer Engagemen	(5,426.13)		(5,426.13)		(5,426.13)
Piedmont Gas - Customer	7,857.54		7,857.54		7,857.54
Piedmont Gas - Delivery		89,469.69	420,422.36		509,892.05
Piedmont Gas - Other	22.16	10,737.87	898,493.28		909,253.31
Service Company Alloc Offsets			1,112.25		1,112.25
SrvCo Construct & Proj Mgmt	97.26		429,783.56		429,880.82
SrvCo Customer Service	691.30	37,124.41	9,694,946.48		9,732,762.19
SrvCo Enterprise Business Svs	991,779.15	6,492,427.29	115,546,054.83	9,226.76	123,039,488.03
SrvCo EnviroHealthSafety	30,465.67	76,751.35	8,238,991.49		8,346,208.51
SrvCo Fossil Hydro Total			35,122.49		35,122.49
SrvCo Gas	7.32		15,606.28		15,613.60
SrvCo Gen Support	(133,765.93)		2,222,189.87		2,088,423.94
SrvCo Nuclear			165,137.58		165,137.58
SrvCo Other	19,382.05	19,878.42	13,873,895.20		13,913,155.67
SrvCo Power Delivery	17,213,682.23	4,754.85	9,764,102.56	3,000.00	26,985,539.64
Q4 2017					
Oct 2017					
100 Org Effectiveness			563,175.30		563,175.30
110 Central Progs Svcs	71.01	254.31	4,647,488.92		4,647,814.24
110 Regional Svcs			768,179.05		768,179.05
Corporate Governance DiscOps	895.54	8,214.32	3,399,314.14		3,408,424.00
DE Renewables & Transmission			557.75		557.75
DEC Central Programs Services			200,556.84		200,556.84
DEC Customer	(47.66)	7,229.01	(5,925.44)		1,255.91
DEC Customer Experience		14,251.82	14,537.69		28,789.51
DEC Environmental		5,256.01	163,304.53		168,560.54
DEC Fossil Hydro			50,304.40		50,304.40
DEC Gen Ops Support			287.80		287.80
DEC Nuclear	742.22		69,245.06		69,987.28
DEC Org Effectiveness			5,044.15		5,044.15
DEC Other		(0.03)	113,949.39		113,949.36

DEC Other Misc	26.86		7,005.46	7,032.32
DEC Power Delivery	(173.68)	37,113.61	724,843.03	761,782.96
DEC Regional Svcs			1,006.74	1,006.74
DEC Wholesale Pwr & Rnwable Gen	312.38		30,327.13	30,639.51
DEF Fossil Hydro			1,102.96	1,102.96
DEF Gen Ops Support	2,249.97	897.82	1,500.00	1,500.00
DEF Other	5,745.72	(493.86)	194,159.81	197,307.60
DEF Power Delivery			(60,533.79)	(55,281.93)
DEF Retail			(1,437.58)	(1,437.58)
DEI Customer	2.92		283.62	286.54
DEI Fossil Hydro			2,082.90	2,082.90
DEI Power Delivery	27,258.00	(0.01)	154,148.37	181,406.36
DEK Power Delivery	3.10		7,493.60	7,496.70
DEP Central Progs Svcs			52,221.74	52,221.74
DEP Environmental		9,909.26	19,792.59	29,701.85
DEP Fossil Hydro			101,846.76	101,846.76
DEP Gen Ops Support	2.07		394,143.95	394,146.02
DEP Nuclear			(23,545.17)	(23,545.17)
DEP Org Effectiveness			68,042.93	68,042.93
DEP Power Delivery	61.09	21,184.94	232,261.33	253,507.36
DEP Regional Svcs			4,088.16	4,088.16
DEP Retail			(219.57)	(219.57)
Duke Energy Ohio - RU			9,545.22	9,545.22
Marketing & Customer Engagemen			(4,780.31)	(4,780.31)
Piedmont Gas - Customer			8,185.12	8,185.12
Piedmont Gas - Delivery	104,355.21		504,913.88	609,269.09
Piedmont Gas - Other	14,148.04		1,035,268.46	1,049,450.34
Service Company Alloc Offsets			1,112.25	1,112.25
SrvCo Construct & Proj Mgmt	108.35	4,108.11	469,114.16	473,330.62
SrvCo Customer Service	797.80	37,124.41	10,751,310.50	10,789,232.71
SrvCo Enterprise Business Svcs	1,112,257.45	7,309,011.44	129,309,091.08	137,739,586.73
SrvCo EnviroHealthSafety	34,944.92	83,223.75	9,122,897.66	9,241,066.33
SrvCo Fossil Hydro Total			36,534.59	36,534.59

SrvCo Gas	7.32		19,857.40	19,864.72
SrvCo Gen Support	352,429.40		1,917,668.84	2,270,098.24
SrvCo Nuclear			222,084.28	222,084.28
SrvCo Other	21,248.75	20,066.15	15,579,923.24	15,621,238.14
SrvCo Power Delivery	19,130,305.56	4,754.67	10,932,068.11	30,070,128.34
Nov 2017				
100 Org Effectiveness			610,321.84	610,321.84
110 Central Progs Svcs	79.36	254.31	5,067,069.05	5,067,402.72
110 Regional Svcs			828,884.70	828,884.70
Corporate Governance DiscOps	953.73	12,989.79	4,578,517.40	4,592,460.92
DE Renewables & Transmission			557.75	557.75
DEC Central Programs Services			225,101.48	225,101.48
DEC Coal Combustion Products			11,099.56	11,099.56
DEC Customer	(47.66)	10,682.70	(7,434.97)	3,200.07
DEC Customer Experience		14,914.14	16,499.53	31,413.67
DEC Environmental		5,256.01	179,768.89	185,024.90
DEC Fossil Hydro			52,558.73	52,558.73
DEC Gen Ops Support			287.80	287.80
DEC Nuclear	838.14		77,795.81	78,633.95
DEC Org Effectiveness			5,044.15	5,044.15
DEC Other		(0.03)	122,861.70	122,861.67
DEC Other Misc	96.39		13,755.96	13,852.35
DEC Power Delivery	(161.10)	41,163.81	744,440.14	785,442.85
DEC Regional Svcs			1,006.74	1,006.74
DEC Wholesale Pwr & Rnwable Gen	(2.66)		(259.17)	(261.83)
DEF Fossil Hydro			1,890.46	1,890.46
DEF Gen Ops Support			1,500.00	1,500.00
DEF Other	2,445.82	897.82	211,963.61	215,307.25
DEF Power Delivery	6,366.88	(493.86)	(60,285.05)	(54,412.03)
DEF Retail			(1,437.58)	(1,437.58)
DEI Customer		2.92	283.62	286.54
DEI Fossil Hydro			2,082.90	2,082.90
DEI Power Delivery	28,339.72	-	167,744.53	196,084.25

DEK Fossil				3,204.63	3,204.63
DEK Power Delivery	3.10			7,493.60	7,496.70
DEP Central Progs Svcs				56,217.79	56,217.79
DEP Environmental		9,909.26		19,792.59	29,701.85
DEP Fossil Hydro				131,229.59	131,229.59
DEP Gen Ops Support	2.07			433,417.92	433,419.99
DEP Nuclear				(49,314.85)	(49,314.85)
DEP Org Effectiveness				68,042.93	68,042.93
DEP Power Delivery	64.98	23,136.88		273,047.05	296,248.91
DEP Regional Svcs				5,186.39	5,186.39
DEP Retail				(219.57)	(219.57)
Duke Energy Ohio - RU				16,336.32	16,336.32
Marketing & Customer Engagemen				(4,193.11)	(4,193.11)
Piedmont Gas - Customer				8,883.69	8,883.69
Piedmont Gas - Delivery		117,142.72		584,067.87	701,210.59
Piedmont Gas - Other	51.15	18,416.89		1,202,643.19	1,221,111.23
Service Company Alloc Offsets				1,112.25	1,112.25
SrvCo Construct & Proj Mgmt	117.33	16,805.16		505,088.86	522,011.35
SrvCo Customer Service	869.93	37,124.36		11,762,359.35	11,800,353.64
SrvCo Enterprise Business Svs	1,207,040.15	7,903,136.79		141,802,240.69	150,912,417.63
SrvCo EnviroHealthSafety	39,031.07	84,372.31		9,909,489.03	10,032,892.41
SrvCo Fossil Hydro Total				39,234.59	39,234.59
SrvCo Gas	7.32			21,530.96	21,538.28
SrvCo Gen Support	20,468.42			2,382,904.73	2,403,373.15
SrvCo Nuclear				254,203.23	254,203.23
SrvCo Other	22,948.25	20,225.95		17,088,635.14	17,131,809.34
SrvCo Power Delivery	20,947,005.57	5,980.76		12,024,512.71	32,977,499.04
Dec 2017					
100 Org Effectiveness				644,963.29	644,963.29
110 Central Progs Svcs	83.48	254.31		5,389,892.84	5,390,230.63
110 Regional Svcs				886,864.58	886,864.58
Corporate Governance DiscOps	993.17	15,927.04		5,550,326.82	5,567,247.03
DE Renewables & Transmission				7,817.43	7,817.43

DEC Central Programs Services				246,687.88
DEC Coal Combustion Products				14,429.32
DEC Customer	(47.66)	11,491.23		9,502.55
DEC Customer Experience		17,634.19		35,700.69
DEC Environmental	(18.89)	-		176,062.95
DEC Fossil Hydro				60,816.66
DEC Gen Ops Support				287.80
DEC Nuclear	883.88			82,587.72
DEC Org Effectiveness				6,044.15
DEC Other		(0.03)		136,310.57
DEC Other Misc	128.99			17,208.04
DEC Power Delivery	(157.91)	46,113.47		830,258.81
DEC Regional Svcs				1,006.74
DEC Wholesale Pwr & Rnwable Gen	27.84			2,729.45
DEF Fossil Hydro				2,660.49
DEF Gen Ops Support				1,500.00
DEF Org Effectiveness				1,000.00
DEF Other	2,640.36	897.83		233,194.05
DEF Power Delivery	6,367.61	(493.89)		(50,590.45)
DEF President & Staff				1,000.00
DEF Retail				(1,437.58)
DEI Customer	2.92			286.54
DEI Fossil Hydro				2,443.30
DEI Power Delivery	28,730.59	-		136,507.51
DEK Fossil				3,204.63
DEK Power Delivery	3.10			7,496.70
DEP Central Progs Svcs				59,383.42
DEP Environmental	(32.34)	-		19,233.95
DEP Fossil Hydro				146,528.78
DEP Gen Ops Support	2.07			457,959.02
DEP Nuclear				(49,314.85)
DEP Org Effectiveness				68,042.93
DEP Power Delivery	66.73	25,488.50		331,637.78

DEP Regional Svcs				5,186.39	5,186.39
DEP Retail				(219.57)	(219.57)
Duke Energy Ohio - RU				22,440.31	22,440.31
Marketing & Customer Engagemen				(3,644.12)	(3,644.12)
Piedmont Gas - Customer				10,190.84	10,190.84
Piedmont Gas - Delivery		136,324.15		678,640.91	814,965.06
Piedmont Gas - Other	67.68	3,228.91		1,286,339.47	1,289,636.06
Service Company Alloc Offsets				1,112.25	1,112.25
SrvCo Construct & Proj Mgmt	125.00	22,145.67		537,026.76	559,297.43
SrvCo Customer Service	906.40	37,124.35		11,781,387.22	11,819,417.97
SrvCo Enterprise Business Svs	1,278,091.58	9,437,332.96	-	150,360,313.81	161,075,738.35
SrvCo EnviroHealthSafety	42,624.34	5,779.84		10,423,049.12	10,471,453.30
SrvCo Fossil Hydro Total				39,234.59	39,234.59
SrvCo Gas	7.32			22,227.06	22,234.38
SrvCo Gen Support	10,844.53			2,472,031.11	2,482,875.64
SrvCo Nuclear				259,064.31	259,064.31
SrvCo Other	24,118.95	20,225.95		18,311,226.69	18,355,571.59
SrvCo Power Delivery	22,482,673.51	6,088.20		12,982,042.52	35,470,804.23
Grand Total	\$ 23,879,133.25	\$ 9,785,562.68	\$ -	\$ 224,518,155.59	\$ 258,182,851.52

Actual - 12 months ending December 2016

See second query for department detail

Business Unit Hierarchy	Duke Energy Kentucky Electric				
	ASSET - Assets	CAPITAL - Capital	INDIRECT - Indirect	O&M and Other Expenses	Grand Total
Q1 2016					
Jan 2016	\$ 1,636,742.66	\$ 666,238.09	\$ 7,048.88	\$ 20,270,196.47	\$ 22,580,226.10
Feb 2016	3,702,214.37	1,239,268.15	16,741.04	41,282,061.00	46,240,284.56
Mar 2016	5,596,846.12	1,837,948.61	8,998.74	61,994,358.91	69,438,152.38
Q2 2016					
Apr 2016	8,297,846.05	2,470,825.19	19,054.36	82,099,789.86	92,887,515.46
May 2016	10,299,973.19	2,978,043.33	28,272.06	100,163,567.20	113,469,855.78
Jun 2016	12,172,122.59	3,508,432.59	44,642.22	118,524,183.12	134,249,380.52
Q3 2016					
Jul 2016	13,985,274.56	4,053,963.36	60,084.10	135,771,386.14	153,870,708.16
Aug 2016	15,568,695.90	4,813,948.40	14,870.37	154,807,022.31	175,204,536.98
Sep 2016	18,256,979.95	5,366,674.26	31,368.83	173,973,454.32	197,628,477.36
Q4 2016					
Oct 2016	20,219,783.46	6,006,407.84	48,099.87	193,935,197.69	220,209,488.86
Nov 2016	22,126,841.94	6,537,531.96	62,089.45	212,737,439.07	241,463,902.42
Dec 2016	23,410,934.37	6,996,734.28	-	226,839,522.61	257,247,191.26
Grand Total	\$ 23,410,934.37	\$ 6,996,734.28	\$ -	\$ 226,839,522.61	\$ 257,247,191.26

Business Unit Hierarchy	Duke Energy Kentucky Electric				
	ASSET - Assets	CAPITAL - Capital	INDIRECT - Indirect	O&M and Other Expenses	Grand Total
Q1 2016					
Jan 2016					
100 Org Effectiveness				\$ 65,329.19	\$ 65,329.19
110 Central Progs Svcs	23.61			498,765.55	498,789.16

110 Regional Svcs				3,835.30	3,835.30
CE Commercial Power				82.87	82.87
Corporate Governance DiscOps	71.72	836.57		1,053,565.90	1,054,474.19
DE Renewables & Transmission				7,602.66	7,602.66
DEC Central Programs Services				26,651.93	26,651.93
DEC Customer				63,637.29	63,637.29
DEC Customer Experience	1.00	8,888.94		169.51	9,059.45
DEC Environmental				5,333.86	5,333.86
DEC Fossil Hydro				716.46	716.46
DEC Nuclear	13.33			1,346.40	1,359.73
DEC Org Effectiveness				21,600.30	21,600.30
DEC Other		5,227.40		24,441.07	29,668.47
DEC Other Misc		(0.01)		(7,938.00)	(7,938.01)
DEC Power Delivery	80.67	16,125.24		81,798.19	98,004.10
DEC Rates		11,018.61		934.75	11,953.36
DEF Gen Ops Support				18.71	18.71
DEF Org Effectiveness				14,016.56	14,016.56
DEF Other	78.53			7,589.91	7,668.44
DEF Power Delivery	1,353.83			17,758.63	19,112.46
DEF Retail				(691.84)	(691.84)
DEI Customer				474.19	474.19
DEI Org Effectiveness				15,209.60	15,209.60
DEI Power Delivery		156.92			156.92
DEP Central Progs Svcs				5,160.66	5,160.66
DEP Gen Ops Support				15,324.90	15,324.90
DEP Org Effectiveness				24,202.26	24,202.26
DEP Other				2,858.24	2,858.24
DEP Power Delivery	6.74	-		(9,543.70)	(9,536.96)
DEP Retail				21,990.94	21,990.94
Marketing & Customer Engagemen				2,614.48	2,614.48
SrvCo Comm Power Other				16,615.17	16,615.17
SrvCo Construct & Proj Mgmt	19.30	-		71,746.48	71,765.78
Srvco Customer Service	42.16	519.31		870,750.07	871,311.54

SrvCo Enterprise Business Svs	69,499.47	611,402.67	7,048.88	13,534,729.55	14,222,680.57
SrvCo EnviroHealthSafety	5,981.29			822,222.32	828,203.61
SrvCo Fossil Hydro Total				7,003.70	7,003.70
SrvCo Gas				3,048.36	3,048.36
SrvCo Gen Support	83,839.94			187,916.60	271,756.54
SrvCo Nuclear				6,015.34	6,015.34
SrvCo Other	1,171.20	9,132.07		1,428,407.42	1,438,710.69
SrvCo Power Delivery	1,474,460.46	2,930.37		1,346,636.41	2,824,027.24
US DE International	99.41			10,248.28	10,347.69
Feb 2016					
100 Org Effectiveness				133,673.74	133,673.74
110 Central Progs Svcs	47.32	1,086.74		988,336.08	989,470.14
110 Regional Svcs				5,844.58	5,844.58
CE Commercial Power				82.87	82.87
Corporate Governance DiscOps	120.34	836.57		2,130,531.10	2,131,488.01
DE Renewables & Transmission				16,452.30	16,452.30
DEC Central Programs Services				51,507.91	51,507.91
DEC Coal Combustion Products				1,081.02	1,081.02
DEC Customer				81,069.93	81,069.93
DEC Customer Experience	1.00	8,888.94		169.51	9,059.45
DEC Environmental				13,990.82	13,990.82
DEC Fossil Hydro				910.10	910.10
DEC Nuclear	44.66			6,832.67	6,877.33
DEC Org Effectiveness				44,436.70	44,436.70
DEC Other		7,713.40		53,928.60	61,642.00
DEC Other Misc		(0.01)		(7,938.00)	(7,938.01)
DEC Power Delivery	148.21	18,969.43		135,121.65	154,239.29
DEC Rates		18,159.73		1,388.92	19,548.65
DEF Fossil Hydro				7,363.04	7,363.04
DEF Gen Ops Support				18.71	18.71
DEF Org Effectiveness				28,681.32	28,681.32
DEF Other	(31.25)	168.72		(3,515.13)	(3,377.66)
DEF Power Delivery	1,205.72			57,892.70	59,098.42

DEF Retail				640.31	640.31	640.31
DEI Customer				1,563.78	1,563.78	1,563.78
DEI Org Effectiveness				32,001.54	32,001.54	32,001.54
DEI Power Delivery		320.44		320.44	320.44	320.44
DEP Central Progs Svcs				10,566.92	10,566.92	10,566.92
DEP Gen Ops Support				33,077.66	33,077.66	33,077.66
DEP Nuclear				1,125.47	1,125.47	1,125.47
DEP Org Effectiveness				50,419.48	50,419.48	50,419.48
DEP Other				2,858.24	2,858.24	2,858.24
DEP Power Delivery	15.12			(24,408.78)	(24,393.66)	(24,393.66)
DEP Retail		76.53		31,917.71	31,994.24	31,994.24
Marketing & Customer Engagemen				(427.83)	(427.83)	(427.83)
SrvCo Comm Power Other				32,895.93	32,895.93	32,895.93
SrvCo Construct & Proj Mgmt	41.07			174,024.17	174,065.24	174,065.24
SrvCo Customer Service	42.16	519.31		1,860,392.35	1,860,953.82	1,860,953.82
SrvCo Enterprise Business Svs	138,906.44	1,151,091.77	16,741.04	27,443,593.44	28,750,332.69	28,750,332.69
SrvCo EnviroHealthSafety	12,538.67			1,681,581.12	1,694,119.79	1,694,119.79
SrvCo Fossil Hydro Total				14,340.92	14,340.92	14,340.92
SrvCo Gas				3,048.36	3,048.36	3,048.36
SrvCo Gen Support	161,720.67			495,502.76	657,223.43	657,223.43
SrvCo Nuclear				12,317.16	12,317.16	12,317.16
SrvCo Other	2,199.11	27,022.26		2,957,398.07	2,986,619.44	2,986,619.44
SrvCo Power Delivery	3,385,152.20	4,414.32		2,713,283.06	6,102,849.58	6,102,849.58
US DE International	62.93			6,488.02	6,550.95	6,550.95
Mar 2016						
100 Org Effectiveness				178,230.05	178,230.05	178,230.05
110 Central Progs Svcs	71.52	1,086.74		1,435,105.22	1,436,263.48	1,436,263.48
110 Regional Svcs				9,791.26	9,791.26	9,791.26
CE Commercial Power				82.87	82.87	82.87
Corporate Governance DiscOps	165.73	836.57		3,331,901.78	3,332,904.08	3,332,904.08
DE Renewables & Transmission				12,027.48	12,027.48	12,027.48
DEC Central Programs Services				79,883.49	79,883.49	79,883.49
DEC Coal Combustion Products				1,066.74	1,066.74	1,066.74

DEC Customer				46,392.61	46,392.61
DEC Customer Experience	1.00	8,888.94		169.51	9,059.45
DEC Environmental				19,940.10	19,940.10
DEC Fossil Hydro				5,537.09	5,537.09
DEC Nuclear	64.82			28,131.14	28,195.96
DEC Org Effectiveness				66,081.66	66,081.66
DEC Other		-		91,418.90	91,418.90
DEC Other Misc		(0.01)		(7,938.00)	(7,938.01)
DEC Power Delivery	164.66	20,663.83		149,744.97	170,573.46
DEC Rates		25,245.13		1,839.58	27,084.71
DEF Fossil Hydro				13,115.90	13,115.90
DEF Gen Ops Support				18.71	18.71
DEF Org Effectiveness	222.05	632.70		41,583.11	41,583.11
DEF Other				24,783.47	25,638.22
DEF Power Delivery	2,399.43			105,133.08	107,532.51
DEF Retail				(1,866.13)	(1,866.13)
DEI Customer				1,021.86	1,021.86
DEI Org Effectiveness				50,744.38	50,744.38
DEI Power Delivery		320.44		320.44	320.44
DEK Power Delivery				(1,659.24)	(1,659.24)
DEP Central Progs Svcs				15,882.25	15,882.25
DEP Gen Ops Support				37,617.34	37,617.34
DEP Nuclear				2,337.04	2,337.04
DEP Org Effectiveness				70,931.84	70,931.84
DEP Other				2,858.24	2,858.24
DEP Power Delivery	48.01	2,926.08		(27,413.05)	(24,438.96)
DEP Retail		76.53		9,353.73	9,430.26
Marketing & Customer Engagemen				349.35	349.35
SrvCo Comm Power Other				50,939.19	50,939.19
SrvCo Construct & Proj Mgmt	61.01	-		272,701.91	272,762.92
SrvCo Customer Service	42.16	519.31		2,799,009.78	2,799,571.25
SrvCo Enterprise Business Svcs	208,501.16	1,730,525.02	8,798.74	41,053,703.75	43,001,528.67
SrvCo EnviroHealthSafety	19,608.57		200.00	2,517,451.41	2,537,259.98

SrvCo Fossil Hydro Total				21,548.20	21,548.20
SrvCo Gas				3,048.36	3,048.36
SrvCo Gen Support	92,002.02			947,394.96	1,039,396.98
SrvCo Nuclear				18,507.40	18,507.40
SrvCo Other	3,437.44	39,899.86		4,491,899.75	4,535,237.05
SrvCo Power Delivery	5,270,011.97	6,327.47		4,019,360.09	9,295,699.53
US DE International	44.57			4,595.78	4,640.35
Q2 2016					
Apr 2016					
100 Org Effectiveness				243,756.10	243,756.10
110 Central Progs Svcs	97.23	2,739.17		1,895,943.54	1,898,779.94
110 Regional Svcs				9,978.40	9,978.40
CE Commercial Power				82.87	82.87
Corporate Governance DiscOps	245.71	836.57		3,184,528.46	3,185,610.74
DE Renewables & Transmission				14,259.52	14,259.52
DEC Central Programs Services				104,987.22	104,987.22
DEC Coal Combustion Products				1,066.74	1,066.74
DEC Customer	2.10			63,723.24	63,725.34
DEC Customer Experience	1.00	8,888.94		169.51	9,059.45
DEC Environmental				27,892.40	27,892.40
DEC Fossil Hydro				5,685.53	5,685.53
DEC Nuclear	105.31			60,994.43	61,099.74
DEC Org Effectiveness				89,802.64	89,802.64
DEC Other				119,919.83	119,919.83
DEC Other Misc		(0.01)		(7,938.00)	(7,938.01)
DEC Power Delivery	257.21	22,044.00		196,605.13	218,906.34
DEC President & Staff				406.24	406.24
DEC Rates		32,638.69		2,309.76	34,948.45
DEF Fossil Hydro				19,952.08	19,952.08
DEF Gen Ops Support				18.71	18.71
DEF Org Effectiveness				56,957.89	56,957.89
DEF Other	542.28	1,138.86		64,224.61	65,905.75
DEF Power Delivery	4,209.91			161,593.42	165,803.33

DEF Retail				4,179.69	4,179.69
DEI Customer				1,021.86	1,021.86
DEI Org Effectiveness				65,180.73	65,180.73
DEI Power Delivery	5.79	320.43		923.92	1,250.14
DEK Power Delivery				(1,659.24)	(1,659.24)
DEP Central Progs Svcs				21,423.87	21,423.87
DEP Gen Ops Support		177.55		56,151.22	56,151.22
DEP Nuclear				21,896.04	22,073.59
DEP Org Effectiveness				97,585.46	97,585.46
DEP Other				2,858.24	2,858.24
DEP Power Delivery	60.93	4,447.50		(14,427.05)	(9,918.62)
DEP Retail		76.53		9,353.73	9,430.26
Duke Energy Ohio - RU		1,055.28			1,055.28
Marketing & Customer Engagemen				1,645.57	1,645.57
SrvCo Comm Power Other				50,939.19	50,939.19
SrvCo Construct & Proj Mgmt	81.55	-		375,504.33	375,585.88
SrvCo Customer Service	42.16	519.33		3,965,603.09	3,966,164.58
SrvCo Enterprise Business Svcs	281,102.88	2,341,671.41	18,854.36	55,009,397.84	57,651,026.49
SrvCo EnviroHealthSafety	27,915.27		200.00	3,390,845.60	3,418,960.87
SrvCo Fossil Hydro Total				21,548.20	21,548.20
SrvCo Gas				3,048.36	3,048.36
SrvCo Gen Support	180,571.63			1,235,242.04	1,415,813.67
SrvCo Nuclear				23,028.92	23,028.92
SrvCo Other	4,820.54	45,452.04		6,112,090.49	6,162,363.07
SrvCo Power Delivery	7,797,739.98	8,818.90		5,324,891.71	13,131,450.59
US DE International	44.57			4,595.78	4,640.35
May 2016					
100 Org Effectiveness				317,634.01	317,634.01
110 Central Progs Svcs	121.72	4,294.01		2,310,190.98	2,314,606.71
110 Regional Svcs				9,978.40	9,978.40
CE Commercial Power				82.87	82.87
Corporate Governance DiscOps	304.71	836.57		2,989,626.66	2,990,767.94
DE Renewables & Transmission				16,524.58	16,524.58

DEC Central Programs Services			129,369.49	129,369.49
DEC Coal Combustion Products			1,066.74	1,066.74
DEC Customer	18.50		83,399.77	83,418.27
DEC Customer Experience	(10.11)	8,888.94	169.51	9,048.34
DEC Environmental			35,736.74	35,736.74
DEC Fossil Hydro		559.23	5,866.93	6,426.16
DEC Gen Ops Support			1,535.38	1,535.38
DEC Nuclear	121.97		79,492.20	79,614.17
DEC Org Effectiveness			110,588.49	110,588.49
DEC Other		-	146,964.09	146,964.09
DEC Other Misc		(0.01)	(7,938.00)	(7,938.01)
DEC Power Delivery	244.31	22,141.50	204,019.01	226,404.82
DEC President & Staff			10,735.62	10,735.62
DEC Rates		34,486.97	2,427.35	36,914.32
DEC Wholesale Pwr & Rnwable Gen			650.00	650.00
DEF Fossil Hydro			27,137.31	27,137.31
DEF Gen Ops Support			18.71	18.71
DEF Org Effectiveness			70,385.14	70,385.14
DEF Other	567.09	1,138.86	69,726.98	71,432.93
DEF Power Delivery	3,072.41		142,411.62	145,484.03
DEF Retail			11,288.31	11,288.31
DEI Customer			1,021.86	1,021.86
DEI Org Effectiveness			78,468.88	78,468.88
DEI Power Delivery	5.79	320.44	923.92	1,250.15
DEK Power Delivery			(1,659.24)	(1,659.24)
DEP Central Progs Svcs			26,710.99	26,710.99
DEP Gen Ops Support			68,506.78	68,506.78
DEP Nuclear		177.55	21,896.04	22,073.59
DEP Org Effectiveness			123,218.90	123,218.90
DEP Other			2,858.24	2,858.24
DEP Power Delivery	72.64	4,447.50	3,100.52	7,620.66
DEP Regional Svcs			1,075.75	1,075.75
DEP Retail		76.53	9,353.73	9,430.26

Duke Energy Ohio - RU	1,055.28		5,058.74	6,114.02
Marketing & Customer Engagemen			2,693.35	2,693.35
SrvCo Comm Power Other			50,939.19	50,939.19
SrvCo Construct & Proj Mgmt	96.78	(0.01)	461,551.81	461,648.58
SrvCo Customer Service	46.69	519.32	4,906,517.73	4,907,083.74
SrvCo Enterprise Business Svs	346,644.52	2,837,502.69	67,821,636.86	71,033,856.13
SrvCo EnviroHealthSafety	36,023.20	200.00	4,209,229.70	4,245,452.90
SrvCo Fossil Hydro Total			21,548.20	21,548.20
SrvCo Gas			3,048.36	3,048.36
SrvCo Gen Support	262,561.33		1,478,061.78	1,740,623.11
SrvCo Nuclear			28,896.12	28,896.12
SrvCo Other	6,013.29	50,921.85	7,545,046.59	7,601,981.73
SrvCo Power Delivery	9,644,068.36	10,676.11	6,524,773.51	16,179,517.98
US DE International	(0.01)		-	(0.01)
Jun 2016				
100 Org Effectiveness			384,234.96	384,234.96
110 Central Progs Svcs	148.01	4,294.01	2,752,054.61	2,756,496.63
110 Regional Svcs			13,753.54	13,753.54
CE Commercial Power			82.87	82.87
Corporate Governance DiscOps	375.92	836.57	2,676,689.35	2,677,901.84
DE Renewables & Transmission			18,594.11	18,594.11
DEC Central Programs Services			154,726.19	154,726.19
DEC Coal Combustion Products			1,066.74	1,066.74
DEC Customer	11.09		104,103.19	104,114.28
DEC Customer Experience	(10.11)	8,888.94	210.28	9,089.11
DEC Environmental			43,101.70	43,101.70
DEC Fossil Hydro		559.23	5,866.93	6,426.16
DEC Gen Ops Support			1,535.38	1,535.38
DEC Nuclear	147.41		87,701.91	87,849.32
DEC Org Effectiveness			132,667.38	132,667.38
DEC Other			174,524.97	174,524.97
DEC Other Misc		(0.01)	(7,938.00)	(7,938.01)
DEC Power Delivery	987.26	22,396.35	244,128.44	267,512.05

DEC President & Staff				10,735.62	10,735.62
DEC Rates		37,703.96		2,677.35	40,381.31
DEC Wholesale Pwr & Rnwable Gen				650.00	650.00
DEF Fossil Hydro				35,385.61	35,385.61
DEF Gen Ops Support				18.71	18.71
DEF Org Effectiveness				85,199.49	85,199.49
DEF Other		885.78	127.33	27,460.72	28,473.83
DEF Power Delivery			(1,162.46)	182,903.40	181,740.94
DEF Retail				18,288.61	18,288.61
DEI Customer				1,021.86	1,021.86
DEI Org Effectiveness				95,156.32	95,156.32
DEI Power Delivery		320.44	5.79	923.92	1,250.15
DEK Power Delivery				(1,659.24)	(1,659.24)
DEP Central Progs Svcs				32,252.45	32,252.45
DEP Environmental				1,000.00	1,000.00
DEP Gen Ops Support				87,040.66	87,040.66
DEP Nuclear		177.55		34,854.57	35,032.12
DEP Org Effectiveness				149,872.52	149,872.52
DEP Other				2,858.24	2,858.24
DEP Power Delivery		4,447.49	77.81	15,668.64	20,193.94
DEP Regional Svcs				4,743.98	4,743.98
DEP Retail				9,353.73	9,430.26
Duke Energy Ohio - RU		1,055.28		5,058.74	6,114.02
Marketing & Customer Engagemen				3,989.59	3,989.59
SrvCo Comm Power Other				50,939.19	50,939.19
SrvCo Construct & Proj Mgmt		(0.02)	105.69	544,290.61	544,396.28
SrvCo Customer Service		519.31	76.58	5,758,581.49	5,759,177.38
SrvCo Enterprise Business Svcs		3,360,823.43	414,271.00	80,939,594.95	84,759,131.60
SrvCo EnviroHealthSafety			47,433.39	5,091,675.24	5,139,308.63
SrvCo Fossil Hydro Total				21,548.20	21,548.20
SrvCo Gas				3,676.28	3,676.28
SrvCo Gen Support		559.62	342,966.74	1,755,439.14	2,098,965.50
SrvCo Nuclear				35,355.48	35,355.48

	7,240.50	51,812.49	8,981,439.68	9,040,492.67
SrvCo Other				
SrvCo Power Delivery	11,359,320.65	13,075.64	7,749,082.82	19,121,479.11
US DE International	(0.01)		-	(0.01)
Q3 2016				
Jul 2016				
100 Org Effectiveness			446,030.81	446,030.81
110 Central Progs Svcs	168.75	4,294.01	3,136,183.79	3,140,646.55
110 Regional Svcs			16,140.22	16,140.22
CE Commercial Power			82.87	82.87
Corporate Governance DiscOps	426.30	836.57	2,501,355.37	2,502,618.24
DE Renewables & Transmission			20,135.25	20,135.25
DEC Central Programs Services			170,878.23	170,878.23
DEC Coal Combustion Products			1,066.74	1,066.74
DEC Customer	11.09		125,512.69	125,523.78
DEC Customer Experience	(10.11)	8,888.94	2,886.78	11,765.61
DEC Environmental			50,245.26	50,245.26
DEC Fossil Hydro		559.23	5,866.93	6,426.16
DEC Gen Ops Support			1,535.38	1,535.38
DEC Nuclear	159.41		89,298.01	89,457.42
DEC Org Effectiveness			149,583.09	149,583.09
DEC Other		-	201,017.35	201,017.35
DEC Other Misc		(0.01)	(7,938.00)	(7,938.01)
DEC Power Delivery	1,003.22	22,890.16	283,761.79	307,655.17
DEC President & Staff			10,735.62	10,735.62
DEC Rates		45,210.26	2,677.35	47,887.61
DEC Wholesale Pwr & Rnwable Gen			650.00	650.00
DEF Fossil Hydro			38,763.23	38,763.23
DEF Gen Ops Support			18.71	18.71
DEF Org Effectiveness	209.71	885.78	100,213.87	100,213.87
DEF Other	(807.94)	0.01	43,525.26	44,620.75
DEF Power Delivery			249,445.29	248,637.36
DEF Retail			23,029.95	23,029.95
DEI Customer			1,021.86	1,021.86

DEI Org Effectiveness				109,229.41	109,229.41
DEI Power Delivery	5.79	320.44		923.92	1,250.15
DEK Power Delivery				(1,659.24)	(1,659.24)
DEP Central Progs Svcs				33,785.60	33,785.60
DEP Environmental				1,000.00	1,000.00
DEP Gen Ops Support				104,812.87	104,812.87
DEP Nuclear		177.55		35,099.56	35,277.11
DEP Org Effectiveness				173,600.22	173,600.22
DEP Other				2,858.24	2,858.24
DEP Power Delivery	84.17	4,512.66		26,475.26	31,072.09
DEP Regional Svcs				8,097.63	8,097.63
DEP Retail		76.53		9,353.73	9,430.26
Duke Energy Ohio - RU		1,055.28		9,626.11	10,681.39
Marketing & Customer Engagemen				4,578.79	4,578.79
SrvCo Comm Power Other				50,939.19	50,939.19
SrvCo Construct & Proj Mgmt	115.49	(0.02)		625,790.55	625,906.02
SrvCo Customer Service	81.34	519.30		6,658,928.46	6,659,529.10
SrvCo Enterprise Business Svs	476,385.53	3,893,876.90	59,884.10	93,007,990.04	97,438,136.57
SrvCo EnviroHealthSafety	58,720.53		200.00	5,920,883.13	5,979,803.66
SrvCo Fossil Hydro Total				21,548.20	21,548.20
SrvCo Gas				5,367.40	5,367.40
SrvCo Gen Support	422,427.22	559.62		2,012,129.32	2,435,116.16
SrvCo Nuclear				40,053.16	40,053.16
SrvCo Other	8,445.90	54,410.36		10,347,780.25	10,410,636.51
SrvCo Power Delivery	13,017,848.17	14,889.79		8,898,470.64	21,931,208.60
US DE International	(0.01)			-	(0.01)
Aug 2016					
100 Org Effectiveness				519,247.21	519,247.21
110 Central Progs Svcs	210.02	4,294.01		3,574,317.06	3,578,821.09
110 Regional Svcs				17,637.82	17,637.82
CE Commercial Power				82.87	82.87
Corporate Governance DiscOps	522.07	836.57		2,360,507.71	2,361,866.35
DE Renewables & Transmission				21,603.00	21,603.00

DEC Central Programs Services			197,415.68	197,415.68
DEC Coal Combustion Products			1,066.74	1,066.74
DEC Customer	27.75		141,978.07	142,005.82
DEC Customer Experience	(10.11)	8,888.94	5,494.87	14,373.70
DEC Environmental			56,301.32	56,301.32
DEC Fleet Maint Svcs			127.05	127.05
DEC Fossil Hydro		559.23	6,250.38	6,809.61
DEC Gen Ops Support			1,535.38	1,535.38
DEC Nuclear	188.74		92,260.09	92,448.83
DEC Org Effectiveness			171,279.74	171,279.74
DEC Other		-	227,914.57	227,914.57
DEC Other Misc		(0.01)	(7,710.20)	(7,710.21)
DEC Power Delivery	1,022.04	24,511.94	297,524.77	323,058.75
DEC President & Staff			10,735.62	10,735.62
DEC Rates		52,910.16	2,677.35	55,587.51
DEC Wholesale Pwr & Rnwable Gen			650.00	650.00
DEF Fossil Hydro			40,316.15	40,316.15
DEF Gen Ops Support			18.71	18.71
DEF Org Effectiveness			114,599.74	114,599.74
DEF Other	239.13	885.78	47,699.47	48,824.38
DEF Power Delivery	(537.52)	1,054.70	281,132.91	281,650.09
DEF Retail			29,738.57	29,738.57
DEI Customer			1,021.86	1,021.86
DEI Org Effectiveness			125,460.03	125,460.03
DEI Power Delivery	5.79	320.44	923.92	1,250.15
DEK Power Delivery			(1,659.24)	(1,659.24)
DEP Central Progs Svcs			37,957.51	37,957.51
DEP Environmental			1,300.00	1,300.00
DEP Gen Ops Support			123,346.75	123,346.75
DEP Nuclear		177.55	35,099.56	35,277.11
DEP Org Effectiveness			197,288.10	197,288.10
DEP Other			2,858.24	2,858.24
DEP Power Delivery	88.87	5,983.32	37,622.91	43,695.10

DEP Regional Svcs				11,333.31	11,333.31
DEP Retail		76.53		9,353.73	9,430.26
Duke Energy Ohio - RU		1,055.28		9,892.39	10,947.67
Marketing & Customer Engagemen				4,578.79	4,578.79
SrvCo Comm Power Other				50,939.19	50,939.19
SrvCo Construct & Proj Mgmt	124.87	(0.02)		708,205.26	708,330.11
SrvCo Customer Service	100.74	537.45		7,660,637.03	7,661,275.22
SrvCo Enterprise Business Svcs	577,610.81	4,637,721.63	14,670.37	105,993,731.18	111,223,733.99
SrvCo EnviroHealthSafety	71,151.87		200.00	6,817,698.43	6,889,050.30
SrvCo Fossil Hydro Total				21,681.54	21,681.54
SrvCo Gas				14,492.08	14,492.08
SrvCo Gen Support	91,861.88	960.33		2,702,285.82	2,795,108.03
SrvCo Nuclear				45,044.52	45,044.52
SrvCo Other	9,792.75	55,696.92		11,851,213.04	11,916,702.71
SrvCo Power Delivery	14,816,290.50	17,477.65		10,131,724.87	24,965,493.02
US DE International	5.70			588.84	594.54
Sep 2016					
100 Org Effectiveness				591,261.75	591,261.75
110 Central Progs Svcs	235.46	4,294.01		3,999,855.14	4,004,384.61
110 Regional Svcs				20,468.27	20,468.27
CE Commercial Power				82.87	82.87
Corporate Governance DiscOps	634.21	836.57		2,637,455.27	2,638,926.05
DE Renewables & Transmission				24,039.46	24,039.46
DEC Central Programs Services				221,254.26	221,254.26
DEC Coal Combustion Products				1,066.74	1,066.74
DEC Customer	9.65			82,484.69	82,494.34
DEC Customer Experience	(10.11)	8,888.94		8,169.59	17,048.42
DEC Environmental				67,862.88	67,862.88
DEC Fleet Maint Svcs				127.05	127.05
DEC Fossil Hydro		559.23		6,250.38	6,809.61
DEC Gen Ops Support				1,535.38	1,535.38
DEC Nuclear	228.73			86,954.31	87,183.04
DEC Org Effectiveness				186,237.44	186,237.44

DUKE ENERGY KENTUCKY, INC.
Payroll Labor Costs

DEC Other						256,536.54
DEC Other Misc		(0.01)				(7,710.21)
DEC Power Delivery	1,047.67	(0.01)				314,721.34
DEC President & Staff		25,950.59				406.24
DEC Rates		60,059.02				62,736.37
DEC Wholesale Pwr & Rnwable Gen						650.00
DEF Fossil Hydro						40,316.15
DEF Gen Ops Support					18.71	18.71
DEF Org Effectiveness					129,049.32	129,049.32
DEF Other	387.95	893.76				54,836.66
DEF Power Delivery	2,350.55	1,535.68				284,871.21
DEF Retail						18,394.57
DEI Customer						1,089.59
DEI Org Effectiveness						140,554.49
DEI Power Delivery	70.61	320.45				(1,289.09)
DEK Power Delivery						(1,659.24)
DEP Central Progs Svcs						43,218.91
DEP Environmental						1,300.00
DEP Fleet Maint Svcs	110.54					110.54
DEP Gen Ops Support						141,038.15
DEP Nuclear		177.55				35,277.11
DEP Org Effectiveness						207,122.40
DEP Other						2,858.24
DEP Power Delivery	105.54	7,526.27				36,406.37
DEP Regional Svcs						11,333.31
DEP Retail		76.53				9,368.64
Duke Energy Ohio - RU		-				10,433.51
Marketing & Customer Engagemen						4,578.79
SrvCo Comm Power Other						50,939.19
SrvCo Construct & Proj Mgmt	134.30	(0.02)				795,777.63
SrvCo Customer Service	101.69	537.44				8,946,190.14
SrvCo Enterprise Business Svs	698,965.53	5,177,959.90			31,168.83	125,134,478.75
SrvCo EnviroHealthSafety	80,462.16				200.00	7,768,840.52

SrvCo Fossil Hydro Total				27,546.27	27,546.27
SrvCo Gas				18,211.59	18,211.59
SrvCo Gen Support	158,190.88	1,199.48		2,925,661.62	3,085,051.98
SrvCo Nuclear				50,035.80	50,035.80
SrvCo Other	11,067.63	55,728.84		13,244,239.28	13,311,035.75
SrvCo Power Delivery	17,302,881.26	20,130.04		11,369,413.11	28,692,424.41
US DE International	5.70			588.84	594.54
Q4 2016					
Oct 2016					
100 Org Effectiveness				657,916.01	657,916.01
110 Central Progs Svcs	260.61	4,294.01		4,346,561.53	4,351,116.15
110 Regional Svcs				42,639.26	42,639.26
CE Commercial Power				82.87	82.87
Corporate Governance DiscOps	700.10	836.57		4,068,814.94	4,070,351.61
DE Renewables & Transmission				25,947.54	25,947.54
DEC Central Programs Services				246,299.82	246,299.82
DEC Coal Combustion Products				1,066.74	1,066.74
DEC Customer	2.08			37,379.01	37,381.09
DEC Customer Experience	(10.11)	8,888.94		11,501.07	20,379.90
DEC Environmental				80,426.85	80,426.85
DEC Fleet Maint Svcs				127.05	127.05
DEC Fossil Hydro		559.23		16,781.11	17,340.34
DEC Gen Ops Support				1,535.38	1,535.38
DEC Nuclear	268.30			90,951.44	91,219.74
DEC Org Effectiveness			(0.01)	195,616.04	195,616.04
DEC Other			(0.01)	284,714.53	284,714.52
DEC Other Misc			(0.01)	(7,710.20)	(7,710.21)
DEC Power Delivery	1,098.60	27,158.73		311,674.12	339,931.45
DEC President & Staff				406.24	406.24
DEC Rates		63,794.29		2,677.35	66,471.64
DEC Regional Svcs				2,000.00	2,000.00
DEC Wholesale Pwr & Rnwable Gen				650.00	650.00
DEF Fossil Hydro				40,814.03	40,814.03

DEF Gen Ops Support				18.71	18.71
DEF Org Effectiveness				137,407.96	137,407.96
DEF Other	234.89	893.76		38,422.74	39,551.39
DEF Power Delivery	3,142.64	2,029.53		319,173.27	324,345.44
DEF Retail				(55.69)	(55.69)
DEI Customer				1,089.59	1,089.59
DEI Org Effectiveness				156,849.01	156,849.01
DEI Power Delivery	70.61	320.45		(2,972.81)	(2,581.75)
DEK Power Delivery				(1,659.24)	(1,659.24)
DEP Central Progs Svcs				48,760.45	48,760.45
DEP Environmental				1,300.00	1,300.00
DEP Fleet Maint Svcs	110.54			-	110.54
DEP Gen Ops Support				156,471.31	156,471.31
DEP Nuclear		177.55		35,099.56	35,277.11
DEP Org Effectiveness				226,858.52	226,858.52
DEP Other				2,858.24	2,858.24
DEP Power Delivery	108.57	8,230.45		33,369.51	41,708.53
DEP Regional Svcs				11,333.31	11,333.31
DEP Retail		76.53		9,292.11	9,368.64
Duke Energy Ohio - RU				10,433.51	10,433.51
Marketing & Customer Engagemen				5,790.31	5,790.31
Piedmont Gas - Other				19,669.79	19,669.79
SrvCo Comm Power Other				50,939.19	50,939.19
SrvCo Construct & Proj Mgmt	144.38	(0.02)		881,103.31	881,247.67
SrvCo Customer Service	163.69	537.43		9,943,380.54	9,944,081.66
SrvCo Enterprise Business Svs	809,175.62	5,809,091.68		132,304,621.94	138,970,789.11
SrvCo EnviroHealthSafety	85,621.18		200.00	8,580,974.88	8,666,796.06
SrvCo Fossil Hydro Total		62.52		44,542.67	44,605.19
SrvCo Gas				24,306.16	24,306.16
SrvCo Gen Support	228,628.68	1,289.64		3,153,864.06	3,383,782.38
SrvCo Nuclear				55,599.60	55,599.60
SrvCo Other	12,404.29	55,811.40		14,695,442.11	14,763,657.80
SrvCo Power Delivery	19,077,653.09	22,355.17		12,531,451.50	31,631,459.76

US DE International	5.70	588.84	594.54
Nov 2016			
100 Org Effectiveness		723,194.12	723,194.12
110 Central Progs Svcs	285.03	4,677,580.36	4,682,159.40
110 Regional Svcs		78,436.14	78,436.14
CE Commercial Power		82.87	82.87
Corporate Governance DiscOps	771.24	5,425,323.79	5,426,931.60
DE Renewables & Transmission		27,415.30	27,415.30
DEC Central Programs Services		268,887.08	268,887.08
DEC Coal Combustion Products		1,066.74	1,066.74
DEC Customer	46.56	37,528.04	37,574.60
DEC Customer Experience	(10.11)	12,763.80	21,642.63
DEC Environmental		91,692.13	91,692.13
DEC Fleet Maint Svcs		127.05	127.05
DEC Fossil Hydro		25,276.88	25,836.11
DEC Gen Ops Support		1,535.38	1,535.38
DEC Nuclear	326.11	(45,100.14)	(44,774.03)
DEC Org Effectiveness		203,871.18	203,871.18
DEC Other		298,806.26	298,806.23
DEC Other Misc		(7,710.20)	(7,710.21)
DEC Power Delivery	1,155.28	335,258.58	364,307.12
DEC President & Staff		15,000.00	15,000.00
DEC Rates		2,677.35	66,471.64
DEC Regional Svcs		2,000.00	2,000.00
DEC Wholesale Pwr & Rnwable Gen		650.00	650.00
DEF Fossil Hydro		40,814.03	40,814.03
DEF Gen Ops Support		18.71	18.71
DEF Org Effectiveness		144,734.57	144,734.57
DEF Other	94.04	24,289.12	25,268.94
DEF Power Delivery	974.70	73,527.68	76,513.89
DEF Retail		(5,465.19)	(5,465.19)
DEI Customer		1,089.59	1,089.59
DEI Fossil Hydro		433.23	433.23

DEI Org Effectiveness	157,489.51				157,489.51
DEI Power Delivery	(1,131.18)	320.47			(720.94)
DEK Power Delivery	(1,659.24)				(1,659.24)
DEP Central Progs Svcs	60,255.53				60,255.53
DEP Environmental	4,300.00				4,300.00
DEP Fleet Maint Svcs	110.54				110.54
DEP Gen Ops Support	167,519.69				167,519.69
DEP Nuclear	61,060.14	177.55			61,237.69
DEP Org Effectiveness	233,707.70				233,707.70
DEP Other	5,358.24				5,358.24
DEP Power Delivery	42,733.32	8,728.39			51,572.28
DEP Regional Svcs	16,115.13				16,115.13
DEP Retail	19,292.11	76.53			19,368.64
Duke Energy Ohio - RU	13,433.51				13,433.51
Marketing & Customer Engagemen	5,790.31				5,790.31
Piedmont Gas - Other	43,948.64				43,948.64
SrvCo Comm Power Other	50,939.19				50,939.19
SrvCo Construct & Proj Mgmt	956,999.52	(0.02)			957,153.05
SrvCo Customer Service	10,921,409.56	537.44			10,922,196.70
SrvCo Enterprise Business Svs	905,690.87	6,337,069.62		61,734.05	151,901,638.69
SrvCo EnviroHealthSafety	89,701.20			200.00	9,488,744.41
SrvCo Fossil Hydro Total	59,127.80	62.52			59,190.32
SrvCo Gas	46,432.78				46,432.78
SrvCo Gen Support	296,511.19	1,289.64			3,668,889.89
SrvCo Nuclear	76,291.18				76,291.18
SrvCo Other	13,478.82	55,960.54			16,106,876.32
SrvCo Power Delivery	20,817,097.18	24,145.73		155.40	34,778,517.27
US DE International	5.70				588.84
Dec 2016					
100 Org Effectiveness	762,322.48				762,322.48
110 Central Progs Svcs	4,924,817.35	4,294.01			4,929,417.17
110 Regional Svcs	122,541.65				122,541.65
CE Commercial Power	82.87				82.87

Corporate Governance DiscOps	745.28	836.57	6,316,956.02	6,318,537.87
DE Renewables & Transmission			29,367.41	29,367.41
DEC Central Programs Services			2,284.15	2,284.15
DEC Coal Combustion Products			-	-
DEC Customer	43.64		28,679.76	28,723.40
DEC Customer Experience	(10.11)	8,888.94	18,720.40	27,599.23
DEC Environmental			98,023.47	98,023.47
DEC Fleet Maint Svcs			-	-
DEC Fossil Hydro		559.23	8,976.65	9,535.88
DEC Gen Ops Support			1,535.38	1,535.38
DEC Nuclear	332.44		(44,460.60)	(44,128.16)
DEC Org Effectiveness			200.00	200.00
DEC Other		(0.03)	322,066.84	322,066.81
DEC Other Misc		(0.01)	(7,310.20)	(7,310.21)
DEC Power Delivery	1,160.79	28,369.87	342,927.35	372,458.01
DEC President & Staff			22,500.00	22,500.00
DEC Rates		63,794.29	2,677.35	66,471.64
DEC Regional Svcs			-	-
DEC Wholesale Pwr & Rnwable Gen			650.00	650.00
DEF Fossil Hydro			3,744.96	3,744.96
DEF Gen Ops Support			18.71	18.71
DEF Org Effectiveness			-	-
DEF Other	128.09	885.78	22,086.25	23,100.12
DEF Power Delivery	279.89	2,011.51	95,947.62	98,239.02
DEF Retail			(3,965.19)	(3,965.19)
DEI Customer			1,089.59	1,089.59
DEI Fossil Hydro			222.09	222.09
DEI Org Effectiveness			16,935.02	16,935.02
DEI Power Delivery	89.77	320.47	(1,131.18)	(720.94)
DEK Power Delivery			(1,659.24)	(1,659.24)
DEP Central Progs Svcs			-	-
DEP Environmental			4,300.00	4,300.00
DEP Fleet Maint Svcs	110.54		-	110.54

DEP Gen Ops Support			177.55			86,829.82	-	87,007.37
DEP Nuclear								
DEP Org Effectiveness								
DEP Other						2,500.00		2,500.00
DEP Power Delivery	65.33		8,857.19			47,419.69		56,342.21
DEP Regional Svcs						11,333.31		11,333.31
DEP Retail			76.53			19,542.11		19,618.64
Duke Energy Ohio - RU			-			8,374.77		8,374.77
Marketing & Customer Engagemen						10,828.79		10,828.79
Piedmont Gas - Other						65,871.72		65,871.72
Service Company Alloc Offsets						(18,646.38)		(18,646.38)
SrvCo Comm Power Other						50,939.19		50,939.19
SrvCo Construct & Proj Mgmt	161.10		(0.02)			1,009,720.77		1,009,881.85
SrvCo Customer Service	278.46		537.44			11,727,967.70		11,728,783.60
SrvCo Enterprise Business Svs	977,421.99		6,793,197.74			154,623,337.07		162,393,956.80
SrvCo EnviroHealthSafety	85,647.63					10,075,271.97		10,160,919.60
SrvCo Fossil Hydro Total			62.52			68,961.75		69,024.27
SrvCo Gas						50,415.46		50,415.46
SrvCo Gen Support	13,507.16		1,289.64			3,840,468.27		3,855,265.07
SrvCo Nuclear						94,766.48		94,766.48
SrvCo Other	14,282.39		56,229.50			17,128,676.56		17,199,188.45
SrvCo Power Delivery	22,316,378.47		26,345.56			14,843,207.76		37,185,931.79
US DE International						588.84		594.54
Grand Total	\$ 23,410,934.37	\$ 6,996,734.28	\$ -	\$ -	\$ 226,839,522.61	\$ 257,247,191.26		

Actual Headcount by Month and Year for DEBS Pay Company

Headcount at Month End. Only full time employees, includes temps

Year	Level 4 Dept	Month																
		1	2	3	4	5	6	7	8	9	10	11	12					
2016	Admin Svcs & Human Resources												486	483	489	488	482	
	CEO & Staff	14	13	12	12	12	11	10	10	10	10	10	10	10	10	10	10	
	Commercial Portfolio	1	1	1	1	1	1											
	Distb, Cust Ops & DE Carolina																	
	Energy Solutions&MW/FL Regions																	
	Extrl Affairs&Strategic Policy	170	170															
	Finance	702	699	698	693	693	2,372											
	Finance & Technology													2,373	2,296	2,283	2,269	2,249
	Gas Operations															246	250	250
	Generation & Transmission	1,516	1,511	1,499	1,494	1,494	2,322	2,317	2,301	2,298	2,300	2,295	2,280					
	Human Resources	227	223	221	215	215	503	490										
	Legal, E&C and EASP																	
	Legal, Ethics & Compliance	175	173	340	336	336	333	321										
Mkt Solutions Carolinas Region	1,005	1,018	1,009	1,005	1,005	1,011	1,007											
MW & FL Regions	854	848	850	846	846	858	862											
Strategic Services	2,842	2,846	2,835	2,745	2,745													
Strategy Execution Office	4	4	4	5	5	4	4	4	4	4	4	4	4	4	4	4	4	
2016 Total	7,510	7,506	7,469	7,352	7,352	7,415	7,384	7,318	7,283	7,274	7,263	7,188						
2017	Admin Svcs & Human Resources	473	477	473	475	486	494	491	485	485	484	488	494					
	CEO & Staff	10	10	10	11	10	10	10	10	10	10	10	10					
	Distb, Cust Ops & DE Carolina	1,372	1,378	1,345	1,357	1,354	1,349	1,401	1,364	1,380	1,373	1,389	1,389					
	Energy Solutions&MW/FL Regions	194	196	198	198	206	210	213	246	244	246	248	227					
	Finance & Technology	2,220	2,224	2,231	2,233	2,267	2,288	2,301	2,287	2,309	2,341	2,349	2,373					
	Gas Operations	249	247	245	244	246	242	247	248	250	246	247	247					
	Generation & Transmission	2,278	2,283	2,288	2,282	2,309	2,328	2,325	2,304	2,307	2,300	2,286	2,262					
	Legal, E&C & External Affairs					312	323	323	318	317	317	316	316					
	Legal, E&C and EASP	310	309	312	309													
	Strategy Execution Office	3	3	3	3	3	4	3	3	2	2	2	2					
	2017 Total	7,109	7,127	7,105	7,112	7,193	7,248	7,314	7,265	7,304	7,319	7,335	7,320					

Actual Headcount by Month and Year for DEBS Pay Company

Headcount at Month End. Only full time employees, includes temps

Year	Level 4 Dept	Month												
		1	2	3	4	5	6	7	8	9	10	11	12	
2018	Admin Svcs & Human Resources	514	522	520	520	537	547	544	542	539	539	542	541	
	CEO & Staff	11	11	11	11	11	11	11	11	11	11	11	11	
	Distb, Cust Ops & DE Carolina	1,390	1,395	1,375	1,405	1,411	1,416	1,449	1,446	1,468	1,474	1,480	1,455	
	Energy Solutions&MW/FL Regions	196	206	228	224	232	232	235	240	244	252	259	276	
	Finance & Technology	2,458	2,484	2,510	2,546	2,590	2,621	2,647	2,599	2,600	2,607	2,607	2,610	
	Gas Operations	265	267	271	270	294	294	288	288	287	282	281	280	
	Generation & Transmission	2,330	2,343	2,355	2,336	2,348	2,377	2,394	2,379	2,390	2,380	2,378	2,362	
	Legal, E&C & External Affairs	321	327	306	308	311	310	310	310	309	313	314	319	
	Strategy Execution Office	2	2	2	2	2	2	1	1	1	1	1	1	
	2018 Total		7,487	7,557	7,578	7,622	7,736	7,810	7,879	7,816	7,849	7,859	7,873	7,855
2019	Admin Svcs & Human Resources	529	528	523	518	530	538	537	528	523				
	CEO & Staff	11	11	11	11	11	11	11	11	11				
	Distb, Cust Ops & DE Carolina	1,487	1,499	1,466	1,477	1,481	1,483	1,484	1,485	1,472				
	Energy Solutions&MW/FL Regions	285	289	272	273	274	274	274	272	276				
	Finance & Technology	2,546	2,548	2,516	2,498	2,513	2,504	2,484	2,457	2,469				
	Gas Operations	282	284	284	285	292	294	292	296	299				
	Generation & Transmission	2,367	2,350	2,325	2,303	2,294	2,220	2,186	2,149	2,167				
	Legal, E&C & External Affairs	318	319	347	349	351	353	352	347	349				
	2019 Total		7,825	7,828	7,744	7,714	7,746	7,677	7,620	7,545	7,566			

**Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019**

AG-DR-01-044

REQUEST:

Provide the amount of Supplemental Executive Retirement Plan ("SERP") costs included in the test year O&M expenses. Provide the amounts broken down between DEK directly incurred costs and costs allocated separately from each other affiliate.

RESPONSE:

See AG-DR-01-044 Attachment.

PERSON RESPONSIBLE: Renee H. Metzler

44. Provide the amount of Supplemental Executive Retirement Plan ("SERP") costs included in the test year O&M expenses. Provide the amounts broken down between DEK directly incurred costs and costs allocated separately from each other affiliate.

Test period: 4/1/20 - 3/31/21

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
DEK BUDGET for NQ Plans - Direct - 2020	-	-	-	705	705	705	705	705	705	705	705	705	6,343
DEK BUDGET for NQ Plans - Alloc - 2020	-	-	-	9,472	9,472	9,472	9,472	9,472	9,472	9,472	9,472	9,472	85,245
DEK BUDGET for NQ Plans - Direct - 2021	701	701	701	-	-	-	-	-	-	-	-	-	2,103
DEK BUDGET for NQ Plans - Alloc - 2021	9,277	9,277	9,277	-	-	-	-	-	-	-	-	-	27,830
TOTAL DEK BUDGET for NQ Plans - Direct (4/1/20 - 3/31/21)													8,446
TOTAL DEK BUDGET for NQ Plans - Alloc (4/1/20 - 3/31/21)													113,075
TOTAL DEK BUDGET for NQ Plans (4/1/20 - 3/31/21)													121,521

Assumptions:

- 1) Service and Non Service costs are included in the above numbers
- 2) Source for numbers = Towers Watson five year financial plan report
- 3) Direct numbers are calculated based on annual budget for DEK Electric
- 4) Allocated numbers are calculated based on annual budget for DEBs (using DGEX Allocation % to DEK Electric)

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-045

REQUEST:

Refer to the electronic workpapers provided in response to Staff 1-54 and further to tab BASE PERIOD containing actual and projected monthly revenues and costs by subaccount during the months in the base year. Provide an update for all accounts with actual monthly data through the latest month with available data.

RESPONSE:

See STAFF-DR-01-003 Attachment. Forecasted months will be updated as the actual information becomes available.

PERSON RESPONSIBLE: Sarah E. Lawler

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-046 PUBLIC
AS TO ATTACHMENT ONLY

REQUEST:

Refer to the electronic workpapers provided in response to Staff 1-54 and further to tabs BASE PERIOD and FORECAST PERIOD containing monthly revenues and costs by subaccount. Account 500000 for Supervision and Engineering – Steam Operations increases from \$2.657 million in the base year to \$3.753 million in the test year for an increase of 41%.

- a. Provide an explanation of all known increases in the forecast year costs over the base year costs for this account.
- b. Provide the costs recorded in this account for 2017, 2018, and separately for all the months in 2019 with information available.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET (As to Attachment Only)

- a. The increase is due to certain costs being in the Base Period in Accounts 510000, 551000, & 920000; however, in the forecast period these charges were inadvertently reflected in Account 500000.
- b. Please see PUBLIC AG-DR-01-046 b Attachment 1. The confidential attachment will be provided to all parties upon the execution of a Confidentiality Agreement.

PERSON RESPONSIBLE: Christopher M. Jacobi (a)
Danielle L. Weatherston (b)

CONFIDENTIAL PROPRIETARY TRADE SECRET

**Duke Energy Kentucky - Electric Only
 Schedule of 0500000 Account Charges
 For the Calendar Year 2017**

Business Unit Hierarchy Account CB DE_KENTUCKY_ELEC - Duke Energy Kentucky Electric
 0500000

Account CB - Description	Grand Total
0500000 - Suprvsn and Engrg - Steam Oper	\$ 2,503,811.27

CONFIDENTIAL PROPRIETARY TRADE SECRET

**Duke Energy Kentucky - Electric Only
 Schedule of 0500000 Account Charges
 For the Calendar Year 2018**

Business Unit Hierarchy Account CB DE_KENTUCKY_ELEC - Duke Energy Kentucky Electric
 0500000

Account CB - Description	Grand Total
0500000 - Suprvsn and Engrg - Steam Oper	\$ 2,467,176.78

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

PUBLIC AG-DR-01-047
(As to Attachment only)

REQUEST:

Refer to the electronic workpapers provided in response to Staff 1-54 and further to tabs **BASE PERIOD** and **FORECAST PERIOD** containing monthly revenues and costs by subaccount. Account 502100 for Fossil Steam Expense - Other increases from \$2.721 million in the base year to \$4.511 million in the test year for an increase of 66%.

- a. Provide an explanation of all known increases in the forecast year costs over the base year costs for this account.
- b. Provide the costs recorded in this account for 2017, 2018, and separately for all the months in 2019 with information available.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET (As to Attachment only)

- a. The increase is due to certain costs inadvertently being charged in the Base Period to Account 514000; however, in the Forecast Period, these charges are correctly reflected in Account 502100.
- b. Please see AG-DR-01-047(b) Confidential Attachment. The confidential attachment will be provided to all parties upon the execution of a Confidentiality Agreement.

PERSON RESPONSIBLE: Christopher M. Jacobi – a.
Danielle L. Weatherston – b.

CONFIDENTIAL PROPRIETARY TRADE SECRET

**Duke Energy Kentucky - Electric Only
 Schedule of 0502100 Account Charges
 For the Calendar Year 2017**

Business Unit Hierarchy DE_KENTUCKY_ELEC - Duke Energy Kentucky Electric
 Account CB 0502100

Account CB - Description	Grand Total
0502100 - Fossil Steam Exp-Other	\$ 3,660,922.28

CONFIDENTIAL PROPRIETARY TRADE SECRET

**Duke Energy Kentucky - Electric Only
 Schedule of 0502100 Account Charges
 For the Calendar Year 2018**

Business Unit Hierarchy DE_KENTUCKY_ELEC - Duke Energy Kentucky Electric
 Account CB 0502100

Account CB - Description	Grand Total
0502100 - Fossil Steam Exp-Other	\$ 2,558,124.18

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

PUBLIC AG-DR-01-048
(As to Attachment only)

REQUEST:

Refer to Schedule C-2. Distribution expenses increase from \$15.959 million in the base year to \$17.848 million in the test year for an increase of 12%.

- a. Provide an explanation of all known increases in the forecast year costs over the base year costs for distribution O&M expenses.
- b. Provide the total distribution O&M costs recorded for 2017, 2018, and separately for all the months in 2019 with information available.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET (As to Attachment only)

- a. The increase in the forecast year distribution O&M expenses over the base year is due to increase in costs related to cable locates, customer installations and vegetation management.
- b. See AG-DR-01-048(b) Attachment. The confidential attachment will be provided to all parties upon the execution of a Confidentiality Agreement.

PERSON RESPONSIBLE: Christopher M. Jacobi – a.
Danielle Weatherston – b.

CONFIDENTIAL PROPRIETARY TRADE SECRET

**Duke Energy Kentucky - Electric Only
 Schedule of Distribution Account Charges
 For the Calendar Year 2017**

Business Unit Hierarchy DE_KENTUCKY_ELEC - Duke Energy Kentucky Electric
 Account CB GL FERC Account (Multiple Items)

Account CB - Description	Grand Total
0580000 - Supervsn and Engrng-Dist Oper	\$ 45,380.58
0581004 - Load Dispatch-Dist of Elec	\$ 415,686.41
0582100 - Station Expenses-Other-Dist	\$ 187,321.69
0583100 - Overhead Line Exps-Other-Dist	\$ 76,416.33
0583200 - Transf Set Rem Reset Test-Dist	\$ 95,353.16
0584000 - Underground Line Expenses-Dist	\$ 405,387.37
0586000 - Meter Expenses-Dist	\$ 837,430.12
0587000 - Cust Install Exp-Other Dist	\$ 623,309.39
0588100 - Misc Distribution Exp-Other	\$ 2,431,263.02
0589000 - Rents-Dist Oper	\$ (28,172.79)
0591000 - Maintenance Of Structures-Dist	\$ 4,020.28
0592100 - Maint Station Equip-Other-Dist	\$ 216,832.56
0592200 - Cir BrkrsTrnsf Meters Rely-Dist	\$ 97,256.18
0593000 - Maint Overhd Lines-Other-Dist	\$ 10,909,882.26
0593100 - Right-Of-Way Maintenance-Dist	\$ 12.44
0594000 - Maint-Underground Lines-Dist	\$ 621,979.68
0595100 - Maint Line Transfrs-Other-Dist	\$ 457,602.14
0596000 - Maint-StreetLightng/Signl-Dist	\$ 458,639.60
0597000 - Maintenance Of Meters-Dist	\$ 334,384.56
Grand Total	\$ 18,189,984.98

CONFIDENTIAL PROPRIETARY TRADE SECRET

**Duke Energy Kentucky - Electric Only
 Schedule of Distribution Account Charges
 For the Calendar Year 2018**

Business Unit Hierarchy DE_KENTUCKY_ELEC - Duke Energy Kentucky Electric
 Account CB GL FERC Account (Multiple Items)

Account CB - Description	Grand Total
0580000 - Supervsn and Engrng-Dist Oper	\$ 116,063.00
0581004 - Load Dispatch-Dist of Elec	\$ 345,581.10
0582100 - Station Expenses-Other-Dist	\$ 61,654.14
0583100 - Overhead Line Exps-Other-Dist	\$ 123,419.55
0583200 - Transf Set Rem Reset Test-Dist	\$ 69,013.70
0584000 - Underground Line Expenses-Dist	\$ 318,755.73
0586000 - Meter Expenses-Dist	\$ 625,332.36
0587000 - Cust Install Exp-Other Dist	\$ 961,446.74
0588100 - Misc Distribution Exp-Other	\$ 2,539,530.46
0589000 - Rents-Dist Oper	\$ (21,468.90)
0590000 - Supervsn and Engrng-Dist Maint	\$ 84,316.75
0591000 - Maintenance Of Structures-Dist	\$ 8,246.91
0592100 - Maint Station Equip-Other-Dist	\$ 86,193.87
0592200 - Cir BrkrsTrnsf Mters Rely-Dist	\$ 216,153.16
0593000 - Maint Overhd Lines-Other-Dist	\$ 3,591,131.13
0593100 - Right-Of-Way Maintenance-Dist	\$ 4,207,722.35
0594000 - Maint-Underground Lines-Dist	\$ 268,975.58
0595100 - Maint Line Transfrs-Other-Dist	\$ 231,010.53
0596000 - Maint-StreetLightng/Signl-Dist	\$ 352,595.43
0597000 - Maintenance Of Meters-Dist	\$ 306,149.13
0598100 - Main Misc Dist Plt-Other-Dist	\$ 6,586.54
Grand Total	\$ 14,498,409.26

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-049

REQUEST:

Refer to FR 16(7)(u) Attachment page 7 of 10 showing amounts by year allocated to DEK from DE Carolinas and DE Progress. Define the purpose and origin of the "Generation Capacity" costs and explain why those costs allocated to DEK have increased from \$58,191 in 2016 to \$399,132 in 2018 and projected to increase to \$913,571 during the test year.

RESPONSE:

The purpose of Generating Capacity is to allocate costs for providing management and support services for Duke Energy Corporation's electric generation system. The origin is a ratio based on the total applicable installed megawatt capability for the preceding year. The numerator of which is for a Client Company and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable). This ratio will be determined annually or when required due to a significant change. This ratio has stayed relatively stable since 2016.

The costs allocated to Duke Energy Kentucky have increased due to an increase in Duke Energy Carolinas employee cost in support of Coal Combustion Products efforts.

Note that the table submitted as part of FR16(7)(u) Attachment, page 7 of 10, was inadvertently not updated to reflect current numbers. See AG-DR-01-049 Attachment for a revised FR16(7)(u), page 4(a) of 5. The table presented had no impact on test period expense.

PERSON RESPONSIBLE: Jeffrey R. Setser

Duke Energy Kentucky
 Analysis of Amounts Allocated to Duke Energy Kentucky from DE Carolinas and DE Progress (Utility to Utility allocations)
 Summarized by Allocation Basis
 Revised FR 16(7) u 4(a) of 5

	Years Ended			Forecasted Test Period (2)
	2016	2017	2018	
		December 31,		
Circuit Miles	164,993	258,447	366,197	353,163
Circuit Miles and Electric Peak Load	18,704	22,276	30,515	20,950
Construction	87,322	149,221	106,202	59,122
Customers	794,528	760,061	810,422	739,339
Electric Peak Load	19,147	17,274	15,304	12,971
Generation Capacity	399,132	544,348	567,941	890,098
Sales	11,739	15,960	7,012	2,326
	\$ 1,495,566	\$ 1,767,587	\$ 1,903,592	\$ 2,077,968
				\$ 1,498,397

(1) Base period represents December 2018 - May 2019 Actuals and June 2019 - November 2019 Budget.

(2) Forecasted test period represents April 2020 - March 2021

REQUEST:

Refer to the DEBS 2018 FERC Form 60 at pages 201, 301, and 302.

- a. Refer to the amount of net income after taxes reflected on page 302 at line 62 and the amount of income taxes on page 302 at lines 42-44. Explain how the service company reflected net income of approximately \$36.105 million after net income tax expense of approximately \$15.407 million in 2018 as opposed to net income and income taxes at around zero if all costs were charged to affiliates at cost.
- b. Refer to page 201 at lines 14 and 15. The balance of Unappropriated Retained Earnings at the end of 2018 was approximately \$508.533 million and dividends paid during 2018 were \$0. Confirm that the amount of Unappropriated Retained Earnings represents profits retained at DEBS, after annual dividends to stockholders, and that those profits represent billings to affiliates in excess of actual costs on a cumulative basis.
- c. Are any costs charged to affiliates, such as DEK, based on an equity return on investment component as opposed to just the return of component and interest charges? If so, explain and describe the basis for the equity return added to costs charged to affiliates as well as the actual return on equity percentage added during 2018 and the projected return on equity percentage for the test year.
- d. Provide a schedule showing the monthly forecasted net income for DEBS, before and after income taxes, for each month during 2020 and the first three months of 2021.

- e. Provide a schedule showing the monthly forecasted recovery of equity return for DEBS, including income taxes, charged to DEK, including charges directly to DEK from DEBS and all charges from other affiliates that include charges from DEBS. Provide all calculations, including electronic spreadsheets in live format with all formulas intact.

RESPONSE:

- a. The Service Company charges a return for the use of DEBS assets to the jurisdictions. This represents a cost of capital for assets on the Service Company that are used in the operations of Duke Energy and its subsidiary companies. For 2018, the return on DEBS assets was \$51.3 million, income tax expense was \$15.4 million, resulting in net income of approximately \$35.9 million.
- b. The amount of Unappropriated Retained Earnings does represent billings in excess of costs recorded on DEBS ledger on a cumulative basis. The nature of these billings in excess of costs can be categorized into two categories. Prior to the Duke Cinergy merger, which brought Kentucky under Duke Energy Corporation, the legacy Duke Corporation utilized a tax strategy in which the Service Company charged a management fee for services provided. The cost to the utilities, primarily Duke Energy Carolinas, was recorded to a below the line non-utility account. The reorganization associated with the Duke Cinergy merger negated this strategy going forward. The second category is the return on DEBS assets. The Service Company to Utility Service Agreement states that the company shall cover all costs of doing business. Cost as defined in the agreement means “fully embedded costs, namely, the sum of (1) direct

costs, (2) indirect costs and (3) **costs of capital.**” The return on DEBS assets is a charge to recover the cost of capital to the utilities for the use of these assets.

- c. A return on DEBS assets is recorded based on a monthly calculation of DEBS assets. These assets include PP&E, prepaid pension assets and inventory. The PP&E is determined based on NET PP&E less CWIP less associated deferred taxes. Prepaid pension assets are determined by taking the prepaid qualified pension, less the non-qualified pension and OPEB liabilities and decreasing by a deferred tax amount. The inventory amount is the amount reflected on the inventory balance sheet for DEBS. The total allocated amount of assets assigned to the Regulated Utility is multiplied by a revenue requirement percentage to achieve the allowed rate of return in the jurisdiction. The amount allocated to the utility is based on a 3-factor allocation for PP&E and inventory assets. The pension assets are allocated based on DEBS labor usage. This process is applicable to 2018, 2019 and for the projected test year. The revenue requirement percentage used in Kentucky are based on the 2017 Kentucky Electric rate case for all forecasted periods. See AG-DR-01-050(c) Attachment.
- d. See table below:

Period	Before taxes (\$000)	After taxes (\$000)
Jan-20	4,440	2,894
Feb-20	4,440	2,894
Mar-20	4,440	2,894
Apr-20	4,440	2,894
May-20	4,440	2,894
Jun-20	4,440	2,894
Jul-20	4,440	2,894
Aug-20	4,440	2,894
Sep-20	4,440	2,894
Oct-20	4,440	2,894
Nov-20	4,440	2,894
Dec-20	4,440	2,894
Jan-21	4,481	2,926
Feb-21	4,481	2,926
Mar-21	4,481	2,926

e. Please see AG-DR-01-050(e) Attachment. This file includes multiple worksheets. The first worksheet “DEK Return” shows the monthly values for the forecasted test period for each of the components of the return as well as the total and tax effects. The following 3 worksheets for both 2020 and 2021 are the worksheets used to calculate the monthly values. Each worksheet shows the detailed calculations for the Duke Energy Kentucky electric component of the DEBS return that are linked to the “DEK Return” worksheet.

PERSON RESPONSIBLE: Jeff Setser (a,b,c,e)
Christopher Jacobi (d)

Duke Energy Kentucky, Inc.
Electric Case No. 2017-00321 10/2/2018

Capital Structure (b)

Long Term Debt	268,420,548	40.977%	4.243%	1.739%	1.000000000	1.74%
Short Term Debt	<u>64,011,655</u>	<u>9.772%</u>	3.083%	<u>0.301%</u>	1.000000000	0.30%
Total Debt	332,432,203	50.749%		2.040%		
Preferred Stock		0.00%	0.00%	0.000%	1.340986600	0.00%
Common Equity	<u>322,619,530</u>	<u>49.251%</u>	9.725%	<u>4.790%</u>	1.340986600	<u>6.42%</u>
Total Jurisdictional Capit	<u>655,051,733</u>	100.00%		<u>6.830%</u>		<u>8.460%</u>

Rate Base 741,429,309

Operating Income 44,740,032 6.034%

Test Period PPE Return		Test Period PEN Return		Test Period INV Return		Total Return		After Tax Return				
4	2020	28,588	32,046	4	2020	1,767	62,400	4	2020	62,400	34.8%	40,672
5	2020	28,588	32,046	5	2020	1,767	62,400	5	2020	62,400	34.8%	40,672
6	2020	28,588	32,046	6	2020	1,767	62,400	6	2020	62,400	34.8%	40,672
7	2020	28,588	32,046	7	2020	1,767	62,400	7	2020	62,400	34.8%	40,672
8	2020	28,588	32,046	8	2020	1,767	62,400	8	2020	62,400	34.8%	40,672
9	2020	28,588	32,046	9	2020	1,767	62,400	9	2020	62,400	34.8%	40,672
10	2020	28,588	32,046	10	2020	1,767	62,400	10	2020	62,400	34.8%	40,672
11	2020	28,588	32,046	11	2020	1,767	62,400	11	2020	62,400	34.8%	40,672
12	2020	28,588	32,046	12	2020	1,767	62,400	12	2020	62,400	34.8%	40,672
1	2021	28,874	32,366	1	2021	1,784	63,024	1	2021	63,024	34.7%	41,152
2	2021	28,874	32,366	2	2021	1,784	63,024	2	2021	63,024	34.7%	41,152
3	2021	28,874	32,366	3	2021	1,784	63,024	3	2021	63,024	34.7%	41,152
		343,910	385,512			21,252	750,674			750,674		489,507

SERVICE COMPANY COST ALLOCATION DETAILS COST ALLOCATIONS IN SERVICE AGREEMENTS																		
SA #	Function	Function	Allocation Method	Operating Unit	Alloc Pool	St Cd	DPC 20056	DEP 50991	PEF 50992	DEO 75553	DEO 75554	DEO 75557	DEK 75558	DEK 75560	DEI 75561	Comm Pwr Piedmont Energy Sol Hing Co, Inc	Other 75562	Total
	Labor Allocation	Allocates the Service Company's Pension	Labor Allocation				Duke Power DE Governance	DE Progress Florida	Progress Florida	USFERGO (USFERGO V)	USFERGO (USFERGO O)	Kentucky DE USFERG	Kentucky DE USFERG	75560				
Account #	Res Type	Resp Center	Revenue Requirement (provided by each)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
0931008 for expense	78000	8000 for expense		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0456949 for income	78000	9957 for income		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2020 Pension value:				343,113	194,566	111,491	123,121	46,077				32,046	11,717	165,260	18,811	16,984	3,764	1,066,769
2020 Budget																		
																		12,601,104.02

146,158,160

REQUEST:

Refer to the Company's CAM at page 13 that includes the following statement:

By the terms of the Service Company Utility Service Agreement, compensation for any service rendered by the Service Company to its utility affiliates is the fully embedded cost thereof (i.e., the sum of: (i) direct costs; (ii) indirect costs; and (iii) costs of capital), except to the extent otherwise required by Section 482 of the Internal Revenue Code.

- a. Describe how the "(iii) costs of capital" is determined by DEBS each period and provide that determination for each month applicable to 2018, 2019, and projected for the test year.
- b. Describe the source of the return on equity percentage component utilized by DEBS for the "(iii) costs of capital" for each month applicable to 2018, 2019, and projected for the test year and cite all authorities, if any.
- c. Indicate whether the "(iii) costs of capital" includes a gross up for income taxes.

RESPONSE:

- a. The return on DEBS assets is based on a monthly calculation of DEBS assets. These assets include PP&E, prepaid pension assets and inventory. The PP&E is determined based on NET PP&E less CWIP less associated deferred taxes. Prepaid pension assets are determined by taking the prepaid qualified pension, less the non-qualified pension and OPEB liabilities and decreasing by a deferred tax amount. The inventory amount

is the amount reflected on the inventory balance sheet for DEBS. The total allocated amount of assets assigned to the Regulated Utility is multiplied by a revenue requirement percentage to achieve the allowed rate of return in the jurisdiction. The amount allocated to the utility is based on a 3-factor allocation for PP&E and inventory assets. The pension assets are allocated based on DEBS labor usage. This process is applicable to 2018, 2019 and for the projected test year.

- b. The source of the return on DEBS assets as it relates to the projected years in Kentucky is the revenue requirement based on the 2017 Kentucky Electric rate case. This is applicable for all actual and forecasted periods. See AG-DR-01-050(c) Attachment used in response to AG-DR-01-050(c).
- c. Yes, the cost of capital is grossed up for income taxes.

PERSON RESPONSIBLE: Jeffrey R. Setser

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-052

REQUEST:

Refer to Lawler Direct at 9 wherein she discusses the Company's adjustment to "completely exclude all revenue and costs that will flow through the Rider PSM from the calculation of the base rate revenue requirement." Explain why the Company does not propose including these amounts in the base revenue requirement and then using these amounts as a "baseline" in the Rider PSM.

RESPONSE:

The Attorney General's witness raised this issue in the Company's most recent base rate case, Case No. 2017-00321. Ms. Lawler provided rebuttal testimony explaining the rationale for excluding profits from off-system sales from base rates. See the Rebuttal Testimony of Sarah E. Lawler, filed in Case No. 2017-00321, on February 14, 2018.

"The Company believes maintaining the rather uncomplicated current structure where 100 percent of net off-system sales, and all of the other components of Rider PSM, are handled through the Rider PSM is the most logical and reasonable way to handle the netting of off-system sales. Mr. Kollen's proposal adds an unnecessary layer of confusion and opaqueness to the Rider PSM that does not exist now. The Company's proposal is to essentially continue the process that has been vetted and approved by the Commission for over more than a decade without any prior controversy or even any objection. Should the Commission find that it is necessary to include an amount in base rates, all other components of the formula as recommended by the Company, including the sharing percentages, should

be approved by the Commission. The Rider PSM should then symmetrically track incrementally above and below the amount that is included in base rates.” (Lawler Rebuttal, pages 11 through 12).

Of note, the Commission, in its April 13, 2018 Order, approved of the Company’s proposed Rider PSM.

PERSON RESPONSIBLE: Sarah E. Lawler

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-053

REQUEST:

Refer to the electronic workpapers provided in response to Staff 1-54 and further to the worksheet tab WPC_2 which contains WPC-2a and WPC-2b showing revenue breakdowns in the base and forecast periods.

- a. Provide the calculations and all support for the sales for resale revenues in the base period and in the test year.
- b. Explain why the sales for resale revenues decline in the test year compared to the base year by over \$4.2 million.
- c. Explain in detail what is included in line 14 described as "Provision for Rate Refunds" and why \$1.912 million in revenue is included in the base year and \$0 is included in the test year. In addition, cite all authorities related to these amounts.

Finally, if determined that an amount should be included in the test year, provide that amount and explain how it was determined.

RESPONSE:

- a. See AG-DR-01-053(a) Attachment, for support of "sales for resale" shown on WPC-2a and WPC-2b. These amounts have been eliminated from the test period on Schedule D-2.20.

- b. As discussed in the AG-DR-01-053(a) Attachment, certain amounts included in the actual months of the base period are not included in the forecasted test period. In addition, there are no projected sales for resale in April 2020 due to planned maintenance outages.
- c. The \$1,911,969 described as “Provision for Rate Refunds” represents amounts due to customers for off-system sales. The entire amount is related to the actual months of the base period. It is not necessary to include any amounts in the test year because it would have been eliminated on Schedule D-2.20 since it is non-native.

PERSON RESPONSIBLE: Christopher M. Jacobi – a., b.
Sarah E. Lawler – c.

Duke Energy Kentucky, Inc.
 Sales for Resale

Account	Account Description	Product	December 2018		January 2019		February 2019		March 2019		April 2019		May 2019		June 2019		July 2019		August 2019		September 2019		October 2019		November 2019		Base Period				
			Actual	Projected	Actual	Projected	Actual	Projected	Actual	Projected	Actual	Projected	Actual	Projected	Actual	Projected	Actual	Projected	Actual	Projected	Actual	Projected	Actual	Projected	Actual	Projected	Actual	Projected	Actual	Projected	
447150	Sales For Resale - Outside	CAPCTY	(1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		FACASM	(2)	(28,731.00)	(25,391.00)	23,866.00	19,770.00	19,770.00	19,770.00	19,770.00	20,453.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	14,260.00	
		FER668	(3)	2,286,911.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		SLRSL	(4)	1,237,750.00	875,343.00	174,644.00	1,056,634.00	1,056,634.00	1,056,634.00	1,056,634.00	1,932,281.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00	743,156.00
447150 Total				3,995,950.00	849,952.00	198,510.00	2,227,591.00	2,227,591.00	2,227,591.00	2,227,591.00	(172,828.00)	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	757,416.00	

Account	Account Description	Product	April 2020		May 2020		June 2020		July 2020		August 2020		September 2020		October 2020		November 2020		December 2020		January 2021		February 2021		March 2021		Forecasted Period			
			Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected
447150	Sales For Resale - Outside	CAPCTY	(1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		FACASM	(2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		FER668	(3)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		SLRSL	(4)	0.00	68,858.00	74,100.00	538,534.00	538,534.00	538,534.00	538,534.00	42,018.00	519,069.00	519,069.00	519,069.00	487,096.00	487,096.00	487,096.00	285,396.00	285,396.00	406,715.00	406,715.00	1,707,519.00	1,707,519.00	1,131,354.00	1,131,354.00	1,100,071.00	1,100,071.00	6,360,730.00	6,360,730.00	
447150 Total				0.00	68,858.00	74,100.00	538,534.00	538,534.00	538,534.00	538,534.00	42,018.00	519,069.00	519,069.00	519,069.00	487,096.00	487,096.00	487,096.00	285,396.00	285,396.00	406,715.00	406,715.00	1,707,519.00	1,707,519.00	1,131,354.00	1,131,354.00	1,100,071.00	1,100,071.00	6,360,730.00	6,360,730.00	

(1) Represents the net of all capacity transactions invoiced by PJM. These transactions are budgeted to account 555, not account 447 and therefore not included in Sales for Resale in the projected months of the base period and the forecasted test period.
 (2) Represents the Ancillary services PJM billing line items recorded to account 447. No amounts were included in the projected months of the base period and the forecasted test period.
 (3) An accounting entry required by FERC 668 order. These amounts are offset in account 555 with zero margin impact and therefore not budgeted.
 (4) Represents sales of excess generation to PJM.

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-054

REQUEST:

Describe in detail how the Company allocates fuel expense between off-system sales and native load. Provide a copy of all documentation of this allocation methodology.

RESPONSE:

The primary tool used to allocate Duke Energy Kentucky fuel expense between off-system sales (non-native sales) and native load is a production costing model, Sumatra, which is jointly supported by Power Costs, Inc., and Duke Energy information technology resources. The model incorporates generator information such as heat rates, emission rates, generating unit fuel costs, emissions allowance costs, and variable operating and maintenance costs. This is the same data used in the Energy Cost Manual, which is also the basis for the supply offers to PJM. We also include as inputs to the model actual hourly data, including native load demand, generating unit output (*i.e.*, megawatt-hour generation) from PJM, and actual native load purchased power information from the billing system.

Sumatra then “economically dispatches” or matches, on an hourly basis, the demand (load) with available supply resources (*i.e.*, generation or purchases) that are economically “stacked,” *i.e.*, generally prioritized based on production costs, lowest cost to highest cost. Consequently, the Sumatra model economically allocates the production costs for serving native load with units on-line for testing assigned to native load.

All the Company's generating resources are generally included as available resources in this process. Post-analysis data includes information such as actual unit forced and maintenance outages. In recognition that the PJM day-ahead and real-time markets are separate markets (for both energy and ancillary services) we also restrict the availability of certain specific generating capacity that cleared in the day-ahead market for non-native demand.

The day-ahead energy market generation awards from PJM are stacked against the day-ahead load cleared by PJM, providing Duke Energy Kentucky native customers first call on the lowest cost generation in the day-ahead market. Generation that clears day-ahead in excess of day-ahead load is committed to day ahead non-native sales. Then, utilizing the actual real-time generation and load, everything is restacked, and Duke Energy Kentucky native customers are assigned the lowest cost generation that did not clear for non-native in the day ahead, but was dispatched in the real-time energy market. If Duke Energy Kentucky's real-time native load is greater than the available real-time generation not committed in the day ahead energy market to non-native, then Duke Energy Kentucky will purchase energy from PJM to make-up the difference. If Duke Energy Kentucky's real-time native load is less than the available real-time generation not committed in the day-ahead market to non-native, then any excess generation is considered as a real-time non-native energy market sale. All costs associated with generators that clear day ahead for non-native energy market sales or in real-time for non-native energy market sales are assigned to a non-native cost allocation. Duke Energy Kentucky native customers will only pay for fuel and/or PJM charges associated with the units that are assigned to them.

PERSON RESPONSIBLE: John Verderame

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-055

REQUEST:

Refer to the electronic workpapers provided in response to Staff 1-54 and further to tabs BASE PERIOD and FORECAST PERIOD containing monthly revenues and costs by subaccount. Refer further to the revenues reflected in account 456025 described as "RSG Rev - MISO Make Whole." Describe the source of these revenues in the base year and explain why none are projected for the test year. In addition, describe if these revenues are reflected in a separate rider instead of base rates.

RESPONSE:

The actual amounts recorded in Account 456025 are related to PJM billing line items 2370, Day-ahead Operating Reserve Credit; and 2375, Balancing Operating Reserve. These billing line items are to ensure that generation owners are fully compensated for any generator that is instructed to run by PJM. Thus, these payments are received by the Company from PJM when revenues received from the market didn't fully compensate the cost to run the generator as defined by the unit's offer. The Company's forecasting model does not forecast generating units running in a situation when they are uneconomic to operate and thus, for budgeting purposes, the Company assumes that these amounts are zero. These PJM billing line items are included in Rider FAC and Rider PSM as "net fuel related RTO billing line items."

PERSON RESPONSIBLE: Christopher M. Jacobi
John Verderame

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-056

REQUEST:

Refer to the electronic workpapers provided in response to Staff 1-54 and further to tabs BASE PERIOD and FORECAST PERIOD containing monthly revenues and costs by subaccount. Refer further to the revenues reflected in account 456111 described as "Other Transmission Revenues." Describe the source of these revenues in the base year and explain why none are projected for the test year. In addition, describe if these revenues are reflected in a separate rider instead of base rates.

RESPONSE:

These revenues in the base period are related to FTR revenues in the actual months and the source is the PJM invoice. Per the Commission's order in Case No. 2017-00321, FTR revenues are included in Rider FAC or Rider PSM as net fuel related billing line items. Therefore, there are no revenues included in the test year for FTRs.

PERSON RESPONSIBLE: Sarah E. Lawler

**Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019**

AG-DR-01-057

REQUEST:

Indicate whether DEK is a C corporation for federal income tax purposes. If not, then describe DEK's entity status for federal income tax purposes.

RESPONSE:

Duke Energy Kentucky is a C corporation for federal income tax purposes. As per tax sharing agreement, Duke Energy and its members (DEK, DEO) file a U.S. consolidated federal income tax return as a common parent.

PERSON RESPONSIBLE: John Panizza

**Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019**

AG-DR-01-058

REQUEST:

Indicate whether DEO is a C corporation for federal income tax purposes. If not, then describe DEO's entity status for federal income tax purposes.

RESPONSE:

DEO is a C corporation for federal income tax purposes. As per tax sharing agreement, Duke Energy and its members (DEK, DEO) file a U.S. consolidated federal income tax return as a common parent.

PERSON RESPONSIBLE: John Panizza

**Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019**

**PUBLIC AG-DR-01-059
(As to Attachment only)**

REQUEST:

Provide a copy of DEK's 2018 federal income tax returns.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET (As to Attachment only)

Please see AG-DR-01-059 Confidential Attachment. This confidential attachment will be provided to all parties upon the execution of a Confidentiality Agreement.

PERSON RESPONSIBLE: John Panizza

2019-00271

AG-DR-01-059

CONFIDENTIAL

ATTACHMENT

IS BEING FILED

UNDER SEAL

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-060

REQUEST:

Provide a copy of DEO's 2018 federal income tax returns.

RESPONSE:

Objection. Overbroad and irrelevant. This request is beyond the scope of reasonable discovery and is not likely to lead to the discovery of admissible or relevant evidence. The tax returns of Duke Energy Ohio have no bearing on Duke Energy Kentucky's application. Without waiving said objection, and to the extent discoverable, the Company would agree to make the tax returns of Duke Energy Ohio available for inspection at the Company's offices in Frankfort at a mutually agreeable and reasonable time and date.

PERSON RESPONSIBLE: As to objection, Legal
 John Panizza

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-061

REQUEST:

Provide a copy of Duke Energy's 2018 federal income tax returns.

RESPONSE:

Objection. Overbroad and irrelevant. This request is beyond the scope of reasonable discovery and is not likely to lead to the discovery of admissible or relevant evidence. The tax returns of Duke Energy Corp have no bearing on Duke Energy Kentucky's application. Without waiving said objection, and to the extent discoverable, the Company would agree to make the tax returns of Duke Energy Kentucky available for inspection at the Company's offices in Frankfort at a mutually agreeable and reasonable time and date.

PERSON RESPONSIBLE: As to objection, Legal
 John Panizza

**Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019**

AG-DR-01-062

REQUEST:

Provide a copy of Duke Energy, DEO, and DEK's income tax allocation agreement(s).

RESPONSE:

Please see AG-DR-01-062 Attachment.

PERSON RESPONSIBLE: John Panizza

DUKE ENERGY CORPORATION AND CONSENTING MEMBERS OF ITS
CONSOLIDATED GROUP

AGREEMENT FOR FILING CONSOLIDATED
INCOME TAX RETURNS AND FOR
ALLOCATION OF CONSOLIDATED INCOME
TAX LIABILITIES AND BENEFITS

Duke Energy Corporation, a Delaware corporation ("Duke Energy"), and its Members hereby agree as of July 2, 2012 to join annually in the filing of a consolidated Federal income tax return and to allocate the consolidated Federal income tax liabilities and benefits among the Members of the Consolidated Group in accordance with the provisions of this Agreement ("Agreement"). This Agreement supersedes and replaces in its entirety the Agreement for Filing Consolidated Income Tax Returns and for Allocation of Consolidated Income and Tax Liabilities and Benefits dated October 1, 2008.

1. DEFINITIONS

"Affiliate" means a corporation, or a company that is treated as a corporation or a company wholly owned by an entity treated as a corporation that is disregarded for purposes of U.S. federal income taxation, other than the common parent which is a Member of the Affiliated Group.

"Affiliated Group" means a group of corporations, or companies that are treated as corporations or disregarded for purposes of U.S. federal income taxation, as defined in Internal Revenue Code ("IRC") section 1504 and the regulations enacted thereunder,

"Consolidated Group" means a group filing (or required to file) consolidated returns for the tax year.

"Consolidated tax" is the aggregate current Federal income tax liability for the Consolidated Group for a tax year shown on the consolidated Federal income tax return, including any adjustments thereto, or as described in section 5 hereof.

"Corporate taxable income" is the positive taxable income of an Affiliate for a tax year, computed as though such company had filed a separate return on the same basis as used in the consolidated return, except that dividend income from Affiliates shall be disregarded, and other intercompany transactions, eliminated in consolidation, shall be given appropriate effect.

"Corporate taxable loss" is the taxable loss of an Affiliate for a tax year, computed as though such entity had filed a Separate return on the same basis as used in the consolidated return, except that dividend income from

Affiliates shall be disregarded, and other intercompany transactions, eliminated in consolidation, shall be given appropriate effect.

"Corporate tax credit" is a negative separate regular tax of an Affiliate for a tax year, equal to the amount by which the consolidated regular tax is reduced by including the Corporate taxable loss of such Affiliate in the consolidated tax return.

"Environmental Tax" The Superfund Amendments and Reauthorization Act of 1986 imposed a new Environmental Tax. The tax was imposed only for the years beginning after December 31, 1986 and before January 1, 1996. The environmental tax was equal to 0.12 percent (\$12 of tax per \$10,000 of alternative minimum taxable income ("AMTI")) of the excess of AMTI over \$2,000,000 and was imposed whether or not the taxpayer was subject to the alternative minimum tax. The Environmental Tax is included in this Agreement for the purposes of any refund on liability with respect to those years when it was in effect.

"Group" means a group of Affiliates as defined in IRC section 1504.

"Separate return" is the tax liability calculated on the taxable income or loss of an Affiliate as though such entity were not a Member of a Consolidated Group.

"Member" is an Affiliate, including a Regulated Business as indicated in section 3 herein, which is part of the Affiliated Group as defined in IRC section 1504 that files consolidated tax returns and agrees to be subject to this Agreement.

These definitions shall apply, as appropriate, in the context of the regular income tax and the Alternative Minimum Tax ("AMT") unless otherwise indicated in the Agreement.

2. FILING OF RETURNS

A U.S. consolidated federal income tax return shall be filed by Duke Energy as the common parent for the tax year ended December 31, 2008, and for each subsequent taxable period for which the Affiliated Group is required or permitted to do so. Each Member of the Affiliated Group consents to the filing by Duke Energy of consolidated federal income tax returns for all taxable periods in which it is eligible to be a member of the Affiliated Group. Duke Energy and each Member of the Affiliated Group agrees to execute and file such consents, elections and other documents, and to take such other action as may be necessary, required or appropriate for the proper filing of such returns. Duke Energy will timely pay the Affiliated Group's federal income tax liability for each taxable year.

3. REGULATED BUSINESSES OPERATING IN LLC OR LP FORM

For purposes of allocating the consolidated federal and state tax liabilities and tax benefits under this Agreement, each business operating as a LLC, or LP that is subject to the rules and regulations of the Federal Energy Regulatory Commission or state utilities commissions (hereinafter, a "Regulated Business") shall be considered a Member of the Consolidated Group, and shall be responsible for tax due on its allocable share of taxable income (or shall be entitled to a credit for its allocable share of tax loss), as set forth in Sections 4 through 7 hereof. For purposes of this Agreement, the determination of a Regulated Business's allocable share shall be made (i) as if such Regulated Business was a taxable or regarded entity for U.S. federal income tax purposes and (ii) utilizing the separate "taxable income" method.

4. ALLOCATION PROCEDURES FOR CONSOLIDATED FEDERAL INCOME TAXES

For all taxable periods, Duke Energy shall calculate the consolidated federal income tax liability (including, if applicable, alternative minimum tax liability) of the Affiliated Group for the period. The Members agree that their respective shares of the Consolidated tax liability for each year shall be an amount equal to the amount determined under the income method in accordance with IRC 1552(a)(2)¹, with the absorption of tax benefits determined under the percentage method in accordance with Treas. Reg. section 1.1502-33(d)(3)², using 100% as the applicable percentage for allocation of any excess of a member's Separate return liability over that determined under the income method. To the extent that the Consolidated Group federal income tax liability is reduced by a loss or tax credit available to it as a result of the inclusion of a Member in the consolidated federal income tax return, Duke Energy shall make a payment or an inter-company account adjustment for the amount of the benefit to the Member as determined in accordance with this section.

To illustrate the above, the Consolidated tax liability shall be allocated among the Members of the Group utilizing the separate return "taxable income" allocation method attributable to each Member, in the following manner:

- a) Each Member, which has a Corporate taxable loss, will be entitled to a Corporate payment or intercompany credit equal to the amount by which the consolidated regular income tax is reduced by including the corporate tax loss of such Member in the consolidated tax return.

¹ Under IRC 1551(a)(2), tax liability is allocated to the several members of the group on the basis of the percentage of the total tax which the tax of such member if computed on a separate return would bear to the total amount of the taxes for all members of the group so computed.

² The percentage method under this regulation "allocates tax liability based on the absorption of tax attributes, without taking into account the ability of any member to subsequently absorb its own tax attributes. The allocation under this method is in addition to the allocation under section 1552."

The Members having corporate taxable income will be allocated an amount of regular income tax liability equal to the sum of the consolidated regular tax liability and the Corporate tax credits allocated to the Members having corporate tax losses based on the ratio that each such Member's Corporate taxable income bears to the total corporate taxable income of all Members having Corporate taxable income.

If the aggregate of the Members' Corporate taxable losses are not entirely utilized on the current year's consolidated return, the consolidated carryback or carryforward of such losses to the applicable taxable year(s) will be allocated to each Member having a Corporate taxable loss in the ratio that such Member's separate Corporate tax loss bears to the total corporate tax losses of all Members having Corporate taxable losses.

- b) The consolidated Environmental Tax will be allocated among the Members of the Group by applying the procedures set forth in subsection a) above, except that the basis for allocation will be Alternative Minimum Taxable Income ("AMTI") rather than regular corporate taxable income.
- c) The consolidated AMT will be allocated among the Members in accordance with the procedures and principles set forth in Proposed Treasury Regulation section 1.1502-55 in the form such Regulation existed on the date on which this Agreement was executed.
- d) Tax benefits such as general business credits, foreign tax benefits, or other tax credits shall be apportioned directly to those Members whose investments or contributions generated the credit or benefit.

If the credit or benefit cannot be entirely utilized to offset current Consolidated tax, the consolidated credit carryback or carryforward shall be apportioned to those Members whose investments or contributions generated the credit or benefit in proportion to the relative amounts of credits or benefits generated by each Member.

- e) If the amount of Consolidated tax allocated to any Member under this Agreement, as determined above, exceeds the separate return tax of such Member, such excess shall be reallocated among those Members whose allocated tax liability is less than the amount of their respective separate return tax liabilities. The reallocation shall be proportionate to the respective reductions in separate return tax liability of such Members. Any remaining unallocated tax liability shall be assigned to Duke Energy. The term "tax" and "tax liability" used in the subsection shall include regular tax, Environmental Tax and AMT.

5. TAX PAYMENTS AND COLLECTIONS FOR ALLOCATIONS

Duke Energy shall make any calculations on behalf of the Members necessary to comply with the estimated tax provisions of the Internal Revenue Code of 1986 as amended (the "Code"). Based on such calculations, Duke Energy shall charge or refund to the Members appropriate amounts at intervals consistent with the dates indicated by Code section 6655. Duke Energy shall be responsible for paying to the Internal Revenue Service the consolidated current Federal income tax liability.

After filing the consolidated Federal income tax return and allocating the Consolidated tax liability among the Members, Duke Energy and the Members agree to settle between them the difference, if any, between the allocable federal income tax liability as determined under this Agreement and the sum of all payments or inter-company adjustments previously made relating to that tax year no later than ninety (90) days after the filing of the consolidated Federal income tax return.

6. ALLOCATION OF STATE TAX LIABILITIES OR BENEFITS

State and local income tax liabilities will be allocated, where appropriate, among Members in accordance with principles similar to those employed in the Agreement for the allocation of consolidated Federal income tax liability.

7. TAX RETURN ADJUSTMENTS

In the event the consolidated tax return is subsequently adjusted by the Internal Revenue Service, state tax authorities, amended returns, claims for refund, or otherwise, such adjustments shall be reflected in the same manner as though they had formed part of the original consolidated return. Interest paid or received, and penalties imposed on account of any adjustment will be allocated to the responsible Member.

8. NEW MEMBERS

If, at any time, a corporation becomes a Member of the affiliated group, the parties hereto agree that such new Member shall become a party to this Agreement by executing a duplicate copy of this Agreement. Unless otherwise specified, such new Member shall have similar rights and obligations of all other Members under this Agreement, effective as of the day they become a member of the Affiliated Group that elects to file a consolidated return.

9. MEMBERS LEAVING THE AFFILIATED GROUP

In the event that any Member of the Affiliated Group at any time leaves the

Group and, under any applicable statutory provision or regulation, that Member is assigned and is deemed to take with it all or a portion of any of the tax attributes (including, but not limited to, net operating losses, credit carryforwards, and Minimum Tax Credit carryforwards) of the Affiliated Group, then, to the extent the amount of the attributes so assigned differs from the amount of such attributes previously allocated to such Member under this Agreement, the leaving Member shall appropriately settle with the Group. Such settlement shall consist of payment on a dollar-for-dollar basis for all differences in credits and, in the case of net operating loss differences, in an amount computed by reference to the highest marginal corporate tax rate. The settlement amounts shall be allocated among the remaining Members of the Group in proportion to the relative level of attributes possessed by each Member and the attributes of each Member shall be adjusted accordingly.

10. SUCCESSORS, ASSIGNS

The provisions and terms of the Agreement shall be binding on and inure to the benefit of any successor or assignee by reason of merger, acquisition of assets, or otherwise, of any of the Members hereto.

11. AMENDMENTS AND TERMINATION

This Agreement may be amended at any time by the written agreement of the parties hereto at the date of such amendment and may be terminated at any time by the written consent of all such parties.

12. GOVERNING LAW

This Agreement is made under the law of the State of Delaware, which law shall be controlling in all matters relating to the interpretation, construction, or enforcement hereof.

13. EFFECTIVE DATE

This Agreement is effective for the allocation of the current Federal income tax liabilities of the Members for the consolidated tax year 2012 and all subsequent years until this Agreement is revised in writing.

The above procedure for apportioning the consolidated annual net current federal and state tax liabilities and tax benefits of Duke Energy and consenting Members of its Consolidated Group have been agreed to by each of the below listed Members of the Consolidated Group as evidenced by the signature of an officer of each entity.

IN WITNESS WHEREOF, each of the parties hereto has caused this Agreement to be executed on its behalf by an appropriate officer thereunto duly authorized.

DUKE ENERGY CORPORATION.

By: Nancy M. Wright
Nancy M. Wright
Assistant Corporate Secretary

CINERGY CORP.

By: Nancy M. Wright
Nancy M. Wright
Assistant Corporate Secretary

DUKE ENERGY BUSINESS SERVICES LLC

By: Nancy M. Wright
Nancy M. Wright
Assistant Secretary

DUKE ENERGY OHIO, INC.

By: Nancy M. Wright
Nancy M. Wright
Assistant Corporate Secretary

DUKE ENERGY INDIANA, INC.

By: Nancy M. Wright
Nancy M. Wright
Assistant Corporate Secretary

SOUTH CONSTRUCTION COMPANY, INC.

By: Nancy M. Wright
Nancy M. Wright
Assistant Secretary

DUKE ENERGY KENTUCKY, INC.

By: Nancy M. Wright
Nancy M. Wright
Assistant Corporate Secretary

DUKE ENERGY CAROLINAS, LLC

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

MIAMI POWER CORPORATION

By: Nancy M Wright
Nancy M. Wright
Assistant Corporate Secretary

TRI-STATE IMPROVEMENT COMPANY

By: Nancy M Wright
Nancy M. Wright
Assistant Corporate Secretary

KO TRANSMISSION COMPANY

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

CINERGY INVESTMENTS, INC.

By: Nancy M Wright
Nancy M. Wright
Assistant Corporate Secretary

CINERGY TECHNOLOGY, INC.

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

DUKE ENERGY COMMERCIAL ENTERPRISES, INC.

By: Nancy M Wright
Nancy M. Wright
Assistant Corporate Secretary

CINERGY GLOBAL POWER, INC.

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

CINERGY GLOBAL RESOURCES, INC.

By: Nancy M. Wright
Nancy M. Wright
Assistant Corporate Secretary

DUKE ENERGY COMMERCIAL ASSET MANAGEMENT, INC.

By: Nancy M. Wright
Nancy M. Wright
Assistant Corporate Secretary

DUKE TECHNOLOGIES, INC.

By: Nancy M. Wright
Nancy M. Wright
Assistant Secretary

DUKE ENERGY RETAIL SALES, LLC

By: Nancy M. Wright
Nancy M. Wright
Assistant Secretary

DE NUCLEAR ENGINEERING, INC.

By: Nancy M. Wright
Nancy M. Wright
Assistant Secretary

DEMI MANAGEMENT, INC.

By: Nancy M. Wright
Nancy M. Wright
Assistant Corporate Secretary

DUKE ENERGY MARKETING AMERICA, LLC

By: Nancy M. Wright
Nancy M. Wright
Assistant Secretary

DUKE ENERGY REGISTRATION SERVICES, INC.

By: Nancy M. Wright
Nancy M. Wright
Assistant Secretary

DUKE ENERGY SERVICES, INC.

By: Nancy M Wright
Nancy M. Wright
Assistant Corporate Secretary

DUKE VENTURES, LLC

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

DUKENET VENTURECO, INC.

By: Nancy M Wright
Nancy M. Wright
Assistant Corporate Secretary

EASTOVER MINING COMPANY

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

DUKE ENERGY CHINA CORP.

By: Nancy M Wright
Nancy M. Wright
Assistant Corporate Secretary

Duke Energy Corporate Services, Inc.

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

Progress Energy, Inc.

By: Nancy M Wright
Nancy M. Wright
Assistant Corporate Secretary

Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

By: Nancy M. Wright
Nancy M. Wright
Assistant Secretary

CaroFund, Inc.
(by its parent, Carolina Power & Light Company)

By: Nancy M. Wright
Nancy M. Wright
Assistant Secretary

Capitan Corporation
(by its parent, Carolina Power & Light Company)

By: Nancy M. Wright
Nancy M. Wright
Assistant Secretary

Progress Energy EnviroTree, Inc.
(by its parent, Carolina Power & Light Company)

By: Nancy M. Wright
Nancy M. Wright
Assistant Secretary

Strategic Resource Solutions Corp.
(by its parent company Progress Energy, Inc.)

By: Nancy M. Wright
Nancy M. Wright
Assistant Secretary

Progress Ventures Holdings, Inc.
(by its parent, Progress Energy, Inc.)

By: Nancy M. Wright
Nancy M. Wright
Assistant Secretary

Progress Ventures, Inc.
(by its parent, Progress Energy, Inc.)

By: Nancy M. Wright
Nancy M. Wright
Assistant Secretary

Florida Progress Corporation

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

Florida Progress Funding Corporation

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

Progress Capital Holdings, Inc.
(by its parent, Florida Progress Corporation)

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

PIH, Inc.
(by its parent, Progress Capital Holdings, Inc.)

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

PIH Tax Credit Fund III, Inc.
(by its parent, Progress Capital Holdings, Inc.)

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

PIH Tax Credit Fund IV, Inc.
(by its parent, Progress Capital Holdings, Inc.)

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

PIH Tax Credit Fund V, Inc.
(by its parent, Progress Capital Holdings, Inc.)

By: Nancy M Wright
Nancy M. Wright
Assistant Secretary

Progress Telecommunications Corporation
(by its parent, Progress Capital Holdings, Inc.)

By: *Nancy M Wright*
Nancy M. Wright
Assistant Secretary

Progress Fuels Corporation

By: *Nancy M Wright*
Nancy M. Wright
Assistant Secretary

Progress Synfuel Holdings, Inc.
(by its parent, Progress Fuel Corporation)

By: *Nancy M Wright*
Nancy M. Wright
Assistant Secretary


DUKE COMMUNICATIONS HOLDINGS, INC.

By: 
Richard G. Beach
Assistant Secretary

DUKE ENERGY GENERATION SERVICES HOLDING COMPANY, INC.

By: 
Richard G. Beach
Assistant Secretary

DUKE-CADENCE, INC.

By: 
Richard G. Beach
Assistant Secretary


CINERGY-CENTRUS COMMUNICATIONS, INC.

By: 
Richard G. Beach
Assistant Secretary


CINERGY-CENTRUS, INC.

By: 
Richard G. Beach
Assistant Secretary

CINERGY GLOBAL HOLDINGS, INC.

By: 
Richard G. Beach
Secretary

DEGS OF TUSCOLA, INC

By: 
Richard G. Beach
Assistant Secretary

DUKE ENERGY ONE, INC.

By: 
Richard G. Beach
Assistant Secretary

DUKE-RELIANT RESOURCES, INC.

By: 
Richard G. Beach
Assistant Secretary

DUKE ENERGY GENERATION SERVICES, INC.

By: 
Richard G. Beach
Assistant Secretary

CINERGY WHOLESALE ENERGY, INC.

By: 
Richard G. Beach
Assistant Secretary

CINERGY CLIMATE CHANGE INVESTMENTS, LLC

By: 
Richard G. Beach
Assistant Secretary

CINERGY SOLUTIONS - UTILITY, INC.

By: 
Richard G. Beach
Assistant Secretary


CALDWELL POWER COMPANY

By: 
Richard G. Beach
Assistant Secretary

CATAWBA MANUFACTURING AND ELECTRIC POWER COMPANY

By: 
Richard G. Beach
Assistant Secretary

CLAIBORNE ENERGY SERVICES, INC.

By: 
Richard G. Beach
Assistant Secretary


DIXILYN-FIELD DRILLING COMPANY

By: 
Richard G. Beach
Assistant Secretary

DUKE ENERGY MARKETING CORP.

By: 
Richard G. Beach
Assistant Secretary


EASTOVER LAND COMPANY

By: 
Richard G. Beach
Assistant Secretary

ENERGY PIPELINES INTERNATIONAL COMPANY

By: 
Richard G. Beach
Assistant Secretary

GREENVILLE GAS AND ELECTRIC LIGHT AND POWER COMPANY

By: 
Richard G. Beach
Assistant Secretary

SOUTHERN POWER COMPANY

By: 
Richard G. Beach
Assistant Secretary


WESTERN CAROLINA POWER COMPANY

By: 
Richard G. Beach
Assistant Secretary

WATEREE POWER COMPANY

By: 
Richard G. Beach
Assistant Secretary


DUKE ENERGY TRANSMISSION HOLDING COMPANY, LLC

By: 
Richard G. Beach
Assistant Secretary


Catamount Energy Corporation

By: 
Richard G. Beach
Assistant Secretary

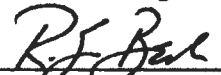
Catamount Rumford Corporation

By: 
Richard G. Beach
Assistant Secretary


Catamount Sweetwater Corporation

By: 
Richard G. Beach
Assistant Secretary


CEC UK1 Holding Corp.

By: 
Richard G. Beach
Assistant Secretary

CEC UK2 Holding Corp.

By: 
Richard G. Beach
Assistant Secretary

Equinox Vermont Corporation

By: 
Richard G. Beach
Assistant Secretary

DUKE ENERGY GROUP HOLDINGS, LLC

By: 
Donna T. Council
Assistant Treasurer

DUKE PROJECT SERVICES, INC.

By: 
Donna T. Council
Assistant Treasurer

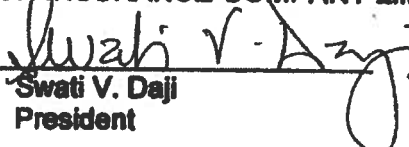
PANENERGY CORP

By: 
Donna T. Council
Assistant Treasurer

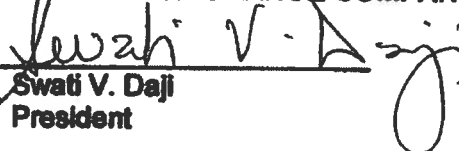
CINERGY RETAIL POWER GENERAL, INC.

By: 
Greer E. Mendelow
Assistant Secretary

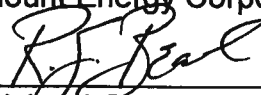
BISON INSURANCE COMPANY LIMITED

By: 
Swati V. Daji
President

NORTHSOUTH INSURANCE COMPANY LIMITED

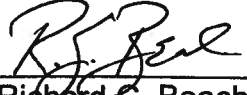
By: 
Swati V. Daji
President

Catamount Energy Corporation

By: 
Richard G. Beach
Assistant Secretary

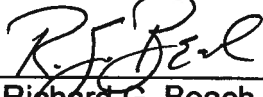
Date: March 5, 2009

Catamount Heartlands Corporation

By: 
Richard G. Beach
Assistant Secretary


Date: March 5, 2009

Catamount Rumford Corporation

By: 
Richard G. Beach
Assistant Secretary


Date: March 5, 2009

Catamount Sweetwater Corporation

By: 
Richard G. Beach
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Date: March 5, 2009

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By: 
Richard G. Beach
Assistant Secretary


Date: March 5, 2009

CEC UK2 Holding Corporation

By: 
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Date: March 5, 2009

Duke Energy Corporate Services, Inc.

By: 
Richard G. Beach
Assistant Secretary

Date: March 5, 2009

Equinox Vermont Corporation

By: 
Richard G. Beach
Assistant Secretary

Date: March 5, 2009

Progress Energy EnviroTree, Inc.

By: 
Nancy M. Wright
Assistant Secretary

Date: 4-3-13

Progress Fuels Corporation

By: 
Nancy M. Wright
Assistant Secretary

Date: 4-3-13

**Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019**

AG-DR-01-063

REQUEST:

Refer to the electronic workpapers provided in response to Staff 1-54 and further to Schedule B-5 and the related tab WPB-5's. Provide a schedule in the same format as the various workpapers with the actual inventory and prepaid amounts for each month January 2018 through the most recent month for which actual information is available for all working capital balances.

RESPONSE:

Please see AG-DR-01-063 Attachment.

PERSON RESPONSIBLE: Danielle Weatherston

DUKE ENERGY KENTUCKY, INC.
ELECTRIC DEPARTMENT
CASE NO. 2019-00271
NATURAL GAS STORAGE BALANCE (ACCT NOS. 164100 & 174273)
FOR THE PERIOD JANUARY 2018 THROUGH SEPTEMBER 2019

<u>LINE</u> <u>NO.</u>	<u>MONTH</u>	<u>AMOUNT (A)</u> \$
1	January 2018	2,046,089
2	February	1,490,689
3	March	970,442
4	April	995,417
5	May	1,802,411
6	June	2,359,766
7	July	2,619,274
8	August	3,142,153
9	September	3,499,203
10	October	3,156,706
11	November	2,159,576
12	December 2018	2,239,894
13	January 2019	1,753,312
14	February	1,211,442
15	March	601,283
16	April	1,084,838
17	May	1,793,534
18	June	1,841,540
19	July	2,271,116
20	August	2,709,390
21	September 2019	2,950,256

DUKE ENERGY KENTUCKY, INC.
 ELECTRIC DEPARTMENT
 CASE NO. 2019-00271
 MATERIAL & SUPPLIES
 FOR THE PERIOD JANUARY 2018 THROUGH SEPTEMBER 2019

LINE NO.	MONTH	ACCOUNT 154100 - Gas	ACCOUNT 154100 - Elec	ACCOUNT 154200 - Elec	ACCOUNT 154990 - Elec	ACCOUNT 163110 - Gas	ACCOUNT 163110 - Elec
		\$	\$	\$	\$	\$	\$
1	January 2018	300,099	16,582,501	935,946	(30,000)	94,429	615,122
2	February	345,143	16,722,229	830,099	(30,000)	67,056	643,608
3	March	313,445	17,000,536	779,737	(30,000)	73,596	459,596
4	April	293,390	16,549,028	779,737	(30,000)	88,826	396,250
5	May	277,986	16,337,472	779,737	(30,000)	31,082	132,053
6	June	306,547	16,238,594	960,506	(30,000)	146,646	456,858
7	July	314,855	16,312,250	798,465	(30,000)	205,240	649,304
8	August	280,139	16,376,040	799,036	(30,000)	251,009	847,265
9	September	265,108	16,438,816	1,087,572	(43,260)	276,210	1,035,411
10	October	243,101	16,134,441	1,064,310	(46,873)	323,502	1,074,721
11	November	268,800	16,234,515	952,634	(46,873)	360,675	1,142,455
12	December 2018	274,915	16,291,666	940,174	(30,000)	430,765	1,557,409
13	January 2019	313,052	16,267,609	1,018,091	(30,000)	448,968	1,734,106
14	February	273,080	15,817,611	1,082,470	(30,000)	461,767	1,679,806
15	March	271,884	16,132,143	1,392,493	(30,000)	517,553	1,599,490
16	April	224,960	16,042,009	1,800,937	(30,000)	566,735	1,221,233
17	May	250,583	16,238,351	1,554,904	(30,000)	571,902	1,004,875
18	June	221,084	16,331,482	1,666,339	(30,000)	567,568	1,207,115
19	July	207,146	16,265,763	1,552,300	(30,000)	568,016	1,201,163
20	August	214,380	16,242,300	1,810,724	(30,000)	517,404	835,927
21	September 2019	220,823	16,242,979	1,522,181	(30,000)	476,704	741,077

DUKE ENERGY KENTUCKY, INC.
 ELECTRIC DEPARTMENT
 CASE NO. 2019-00271
 PREPAYMENTS
 FOR THE PERIOD JANUARY 2018 THROUGH SEPTEMBER 2019

LINE NO.	MONTH	Prepaid Insurance - Elec 165075 (A)	Prepaid Insurance - Gas 165075 (A)	Public Utility Fees - Gas 165400 (A)	Public Utility Fees - Elec 165400 (A)	Collateral Asset Elec 165520 (A)
		\$	\$	\$	\$	\$
1	January 2018	450,083	59,308	77,353	304,229	206,871
2	February	409,167	53,917	61,883	246,383	2,531,614
3	March	368,250	48,525	46,412	188,537	3,593,634
4	April	327,333	43,133	30,941	130,692	2,667,481
5	May	286,417	37,742	15,471	72,846	1,039,005
6	June	245,500	32,350	188,328	684,816	85,892
7	July	204,583	26,958	172,634	628,998	(20,638)
8	August	163,667	21,567	156,940	576,535	(20,751)
9	September	122,750	16,175	141,246	520,717	(32,707)
10	October	81,833	10,783	125,552	464,898	(33,289)
11	November	40,917	5,392	109,858	412,606	(43,929)
12	December 2018	0	0	94,164	584,788	(44,086)
13	January 2019	410,848	84,027	78,470	499,015	(44,086)
14	February	373,498	76,388	62,776	387,917	(20,304)
15	March	336,149	68,749	47,082	291,819	(44,149)
16	April	298,799	61,111	31,388	195,721	(22,060)
17	May	261,449	53,472	15,694	99,623	(7,365)
18	June	224,099	45,833	199,505	685,624	(7,466)
19	July	186,749	38,194	182,880	628,782	(43,668)
20	August	149,399	30,555	166,254	571,941	(43,771)
21	September 2019	112,049	22,916	149,629	515,099	(43,771)

DUKE ENERGY KENTUCKY, INC.
 ELECTRIC DEPARTMENT
 CASE NO. 2019-00271
 FUEL

FOR THE PERIOD JANUARY 2018 THROUGH SEPTEMBER 2019

LINE NO.	MONTH	Coal Stocks		Diesel Fuel 151140 (A) \$	Natural Gas Woodsdale (A) \$	Propane Woodsdale 151700 (A) \$
		151130 (A) \$	151131 (A) \$			
1	January 2018	12,660,986	2,795,991	500,788	0	717,397
2	February	12,109,455	145,780	536,208	0	717,397
3	March	12,609,563	75	417,661	0	581,094
4	April	10,795,018	335,127	417,661	0	507,820
5	May	10,942,376	2,741,998	727,368	0	480,388
6	June	12,316,464	3,161,955	495,919	0	480,388
7	July	11,195,734	3,826,814	608,639	0	480,388
8	August	10,817,095	5,503,595	621,991	0	480,388
9	September	12,051,890	2,261,016	520,217	0	480,388
10	October	12,074,867	2,521,768	793,031	0	480,388
11	November	11,938,913	4,514,562	665,361	0	(0)
12	December 2018	10,905,448	3,450,072	732,718	0	22,387
13	January 2019	9,902,123	2,803,037	643,730	0	0
14	February	8,605,226	3,907,311	1,822,057	0	0
15	March	8,479,526	3,989,848	3,950,995	0	0
16	April	10,658,657	2,686,430	5,595,949	0	0
17	May	11,504,263	4,070,123	5,187,089	0	0
18	June	11,732,554	5,261,458	4,704,443	0	0
19	July	11,275,127	3,293,011	4,789,162	0	0
20	August	9,644,942	3,181,760	5,188,736	0	0
21	September 2019	9,427,454	2,438,804	6,409,686	0	0

Duke Energy Kentucky
Case No. 2019-00271
Attorney General's First Set Data Requests
Date Received: October 14, 2019

AG-DR-01-064

REQUEST:

Provide all work papers and supporting documentation used and relied upon by Dr. Morin in the preparation of his Direct Testimony and exhibits. Provide all spreadsheets in Excel format with cell formulas intact.

RESPONSE:

See response to STAFF-DR-02-093 for electronic copies of exhibits. See also AG-DR-01-064 Attachments 1 and 2.

Dr. Morin's books, Utilities' Cost of Capital and The New Regulatory Finance, are commercially available from Public Utility Reports Inc. and the book/chapters cannot be photocopied or scanned without violating copyright laws.

The bond yields were obtained from Duff & Phelps' (formerly Morningstar, formerly Ibbotson Associates) "Valuation Yearbook" of historical returns, Table B-6 "Long-Term Government Bond Yields". This widely used reference is available by paid commercial subscription only from Duff & Phelps and cannot be disseminated without violating copyright laws, and can be made available for inspection upon reasonable prior notice at the Company's premises.

The Value Line reports for each company in Dr. Morin's peer group are attached as AG-DR-01-064 Attachment 3.

The analyst growth rates in the DCF exhibits were obtained directly on-line from the Yahoo Finance Web site.

With reference to the Allowed ROE Risk Premium Analysis in Dr. Morin's testimony, the annual allowed ROE data was taken from Regulatory Research Associates, Inc.'s (now S&P Global Intelligence) comprehensive quarterly survey of ROE decisions by regulators over the period 1998-2019 for electric and gas utilities ("*Regulatory Focus*", Major Rate Case Decisions). This proprietary data cannot be disseminated electronically due to copyright restrictions that are strictly enforced.

PERSON RESPONSIBLE: Dr. Roger Morin, Ph.D.

How might the expansion end? Boom and Bust is a real risk

It is an unfortunate reality that economic expansions eventually end. Historically, how long they continue and how they end has varied considerably. The current expansion is getting long in the tooth at 8 years 7 months, and the economy, while not without pockets of lingering weakness, has returned essentially to full employment. This is both a blessing and a curse. While there are not obvious significant imbalances whose correction might initiate a process that would end in a downturn, there remain concerns that the seeds of the next recession have already been sown. In this report we a) briefly review the set of factors that typically spell the end of an expansion, b) discuss two possible ways in which the current expansion might end, and c) present an alternative simulation that, given the recent significant reduction in taxes and legislated increase in spending, coming at a time when the economy is already at full employment, illustrates an expansion-ending scenario that should be of increasing concern, which we refer to as the "Boom/Bust" scenario.

So how do expansions typically end?

A review of business cycles reveals that one or more of a small set of key factors or events have typically combined to tip the economy from expansion into recession, sometimes violently. We group these factors into five relatively broad categories: 1) bubbles build and burst; 2) supply/commodity price shocks; 3) policy "mistakes"; 4) financial minefields or meltdowns; and finally, 5) war and pestilence. Let's briefly consider each of these in turn.

Bubbles build and burst:

Perhaps the cause of expansions ending most front of mind is that asset-market bubbles can arise and expand in magnitude sufficiently that their eventual rapid deflation becomes a significant adverse event for the economy that results in a recession. Recent examples include the bursting of the dot-com bubble being a major contributor to the 2001 recession, and of course, the bursting of the housing bubble being a major cause of the Great Recession.

Supply/commodity price shocks:

A sharp increase in the relative price of a key industrial commodity, whether engineered by a cartel, the result of a man-made or natural disaster, or other cause, can have a dramatic impact on both aggregate supply and aggregate demand, resulting in an expansion coming to an end. Two recent and clear examples include the oil price shocks that occurred in the mid- and late 1970s. From mid-1973 to early 1974, oil prices tripled as a result of the formation of the OPEC oil cartel and the resulting effective control of the supply and price of oil. The 1974–1975 recession ensued. Similarly, from late 1978 to early 1980, oil prices increased by more than 2½ times. While in both cases, these were significant relative price shocks, the importance of oil in the US economy was such that the resulting surge in the overall price level resulted in a significant decline in real incomes (and wealth) sufficient to push the economy into recession. (Note that the Fed initially tried to accommodate the price shocks by allowing inflation to rise, rather than resist a rise in the overall price level.) More recently, oil prices roughly doubled, from around \$65 per barrel in early 2007 to over \$130 per barrel by mid-2008. While the collapse of the housing bubble

Please see the important disclaimer on the last page of this report.

and associated collapse in the value of mortgage-backed securities may have been the more important catalyst for the Great Recession, the surge in oil prices also played a significant role.

Policy “mistakes”:

Perhaps the most interesting contributing cause of expansions ending are policy mistakes. We put mistakes in quotes because the motivation for policies that may ex post appear to have contributed to a recession can be quite complicated, involving competing interests, bad luck, and the interplay of multiple factors. As an example, the 1953–1954 recession largely resulted from the sharp decline in real defense expenditures at the conclusion of the Korean war. In real terms, those expenditures fell 22% from mid-1953 to mid-1955, with much of that decline subtracting 2.6 percentage points from GDP growth over the four quarters of 1954. The peak-to-trough decline in GDP during the recession was only 2.4%. Reducing defense spending at that time was hardly a “mistake”, but it does appear to be the proximate cause of that recession. Ill-timed tax increases that occurred in the late 1960s and in 1990, arguably contributed to recessions that began in 1970 and 1990, respectively. Policymakers at the time felt that such tax increases were necessary to address growing structural federal deficits, but the timing turned out not to be so good from a macroeconomic stability perspective.

Turning to monetary policy, some have argued that the Federal Reserve was late in tightening policy sufficiently in the late 1990s, allowing the dot-com bubble to build and eventually bust, contributing to the 2001 recession. Similarly, the housing bubble that emerged over roughly 2003–2007, along with the more insidious subprime mortgage crisis, arguably could have been averted or mitigated by a more timely Fed policy response aimed at slowing the economy and preventing the bubble in home prices and associated overbuilding. If there was a mistake, it was that policy tightening was too late, followed by a need to tighten more aggressively at the same time the subprime minefield posed a unique and hidden vulnerability. And then there is the significant monetary tightening that occurred beginning in late 1979 aimed at curbing the inflation spiral

then underway. The sharp rise in real interest rates played a major role in causing the 1980 and 1981–1982 recessions. Was the tightening or the severity of the tightening a mistake? Few economists would today call it a mistake. In retrospect the policy was effective in ending and reversing the upward inflation spiral then underway, and the move is generally lauded as ushering in the period of low stable inflation we have enjoyed the last couple of decades. If there was a mistake, it was in not responding appropriately to the prior oil-price shock and letting inflation continue to build over the second half of the 1970s. Of course, hindsight is 20/20, and the accuracy of the forecasts upon which policy must in part rely is woefully inadequate to the task...yes, we forecasters share some of the blame.

Financial minefields and meltdowns:

The subprime mortgage debacle is the best example of a financial minefield. These are in the nature of a major mispricing of asset valuations, perhaps the result of a mispricing of risk tied to fraud, “soft fraud” as was identified in the subprime crisis, and the kinds of financial exuberance that economist Hyman Minsky once labelled Ponzi finance. In these cycles, credit and leverage grow rapidly, where accelerating cash flows and rising value of collateral support a (sometimes self-reinforcing) expansion of leverage up until it becomes clear the collateral may not be worth what was previously thought and cashflows are found to be insufficient to prevent default on the loans. At the risk of oversimplification, the subprime crisis occurred as a result of improperly aligned incentives that allowed a mortgage credit boom that fed the house-price bubble, that in turn seemed to justify the credit boom, until it became clear that the price expansion was unsustainable. At the core was a rapid buildup in the issuance of mortgages of questionable quality, and certainly mispriced, that were then wrapped into mortgage-backed securities (MBS) in a rapidly growing securitization binge, while rating agencies failed to see or properly warn of the underlying riskiness of the mortgages. Once the façade began to crack—the Minsky Moment as it has come to be called—MBS values plunged, and a whole super structure of leverage built upon them came crashing down. Homebuilding, which had already

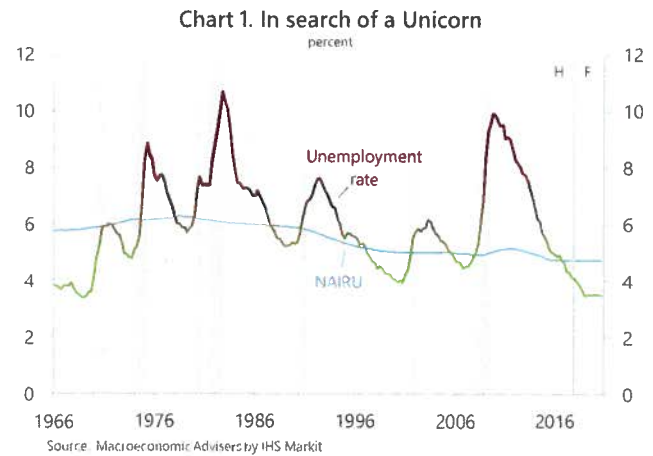
begun to slow as a result of prior overbuilding, then came crashing down, and, well, you know the rest.

War and Pestilence:

This broad category could include any conflict, outbreak of disease, or natural disaster that so disrupts economic activity as to materially reduce output and/or raise unemployment. It could include the 9/11 attacks on the US, which did contribute to the 2001 recession. It's possible that absent the attacks, the weakness evident in 2001 would not have been broad, deep or of sufficient duration to qualify as a recession. The tsunami that hit Japan in March 2011 is also in this category. The tsunami contributed to a sharp 6% annualized decline in Japan's GDP in the first quarter of 2011, followed by a 2% annualized decline in the second quarter. The economy had already declined in the fourth quarter of 2010 at a 2.9% clip, so the tsunami contributed to a three-quarter recession that included a 2.7% cumulative decline in GDP.

In most post-WWII recessions, more than one factor contributed to the downturn, and policy—it could be argued—nearly always played some sort of a role. Often policy's role was in the form of doing too little to prevent the economy from overshooting full-employment. Then, as inflation or asset bubbles built, policy tightening turned out to be sufficiently severe to tip the economy into recession, perhaps with a bursting bubble as part of the mix. This brings us to today and concerns that having essentially reached full employment, if not having overshot it, and with more fiscal stimulus poised to further tighten labor and product markets, tightening monetary policy "just right" will prove to be a difficult, if not impossible task. We often have noted the difficulty of achieving what we call a "soft landing from below," whereby the Federal Reserve is able to slow economic growth by just enough to have the unemployment rate drift up from below the sustainable rate of unemployment (or NAIUR) to the NAIUR. Indeed, such a feat has not been successfully achieved in the US in at least the last half-century.

As seen in the upper-right chart, in each case where the unemployment rate fell below the NAIUR, the economy eventually found itself in a recession. The simple reality is it is quite difficult to apply just the

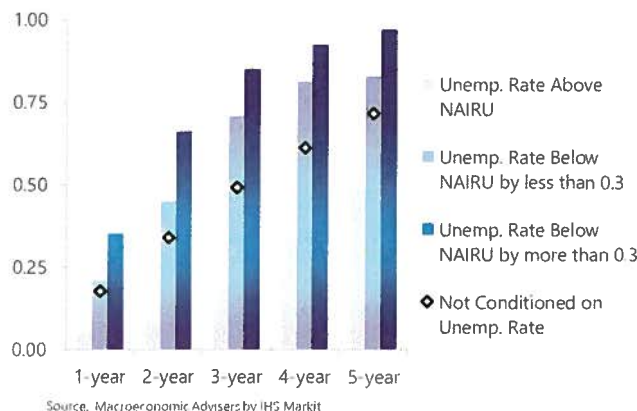


right amount of policy restraint—fiscal and monetary—to slow the economy enough to see the unemployment rate rise without causing an outright recession. Today, with the unemployment rate at 4.1% and expected to decline to close to 3½% as a result of strong momentum in the economy and fiscal stimulus coming from both the tax cut and the Bipartisan Budget Act of 2018 (BBA 2018), policymakers face a significant challenge in the years ahead to avoid an unacceptably large increase in inflation, while nudging the unemployment rate back toward the sustainable rate of unemployment, estimated to be in the neighborhood of 4½%.

In a recent report, we observed how the ex post probability of a recession occurring over the next 1 to 5 years, in the historical record since the mid-1940s, depended upon whether the unemployment rate was above or below the NAIUR.¹ We found that, if the unemployment rate was below the NAIUR by more than three-tenths of a percentage point, the likelihood of recession two years out was dramatically higher than when the unemployment rate was above the NAIUR. The key findings are summarized in the chart on the next page. The diamonds show the unconditional probability of a recession occurring within the time frame specified on the horizontal axis based on all non-recession months from 1947 to 2016. However, when we conditioned the results based on the unemployment rate relative to the NAIUR, we get dramati-

¹ See our *Recently Asked Questions* report, "What is the probability that a recession will begin at some point over the next year? Or five years?," January 13, 2017.

Chart 2. Recession Probabilities by Maturity of Expansion



cally different results. As shown in the chart, if the unemployment rate is above the NAIRU, the ex post probability of a recession over the next one through five years rises slowly from below 5% to 50%. However, if the unemployment rate is below the NAIRU the ex post probability rises more quickly, and especially if the unemployment rate is below the NAIRU by more than three-tenths of a percentage point.

The ex post probability of recession tends to rise as the unemployment falls below the NAIRU because as the unemployment rate falls below the estimate of the NAIRU, it indicates a degree of labor market and product market tightness that tends to cause inflation to rise. As the Fed tightened policy to squelch such an increase in inflation, the resulting slowing in economic growth, perhaps intensified by the bursting of an asset bubble, has contributed to an ensuing recession. As noted above, tax surcharges in the late 1960s, aimed at reducing the budget deficit and slowing the rise in inflation, also played a role in the 1970 recession.

Today, with an estimate of the NAIRU near 4½% and an unemployment rate of just 4.1%, this analysis suggests that the probability of recession within the next three years could be elevated, well over 50%. However, there are several reasons why this time could be different. First, the NAIRU could be well below 4½%. Second, we are starting with inflation at least somewhat below the Federal Reserve’s inflation target, rather than at 3% or above as occurred late in the prior expansions, meaning that policy tightening could proceed more cautiously than in prior cycles. Third, the short-term

relationship between the change in inflation and the level of the unemployment rate relative to NAIRU, what is referred to as the slope of the short-run Phillips curve, has flattened over time. This also argues that the Federal Reserve may be able to tighten policy at a slower pace than was the case in prior cycles.

Another very important reason why this time could be different is that with considerable fiscal stimulus coming online from both the Tax Cuts and Jobs Act of 2017 (TCJA) and the BBA 2018 supporting aggregate demand growth, the probability of recession in the next two years is quite low. Nevertheless, with the effects of fiscal stimulus on growth likely to begin to wane in 2020, at the same time that the Fed is proceeding with a series of interest rate hikes, the likelihood of recession at that time must be thought to be somewhat elevated. Indeed, we view this as the most significant risk to a continuation of the expansion and will be featuring some variant of this scenario as the most likely alternative to our base forecast.

So how will this expansion end?

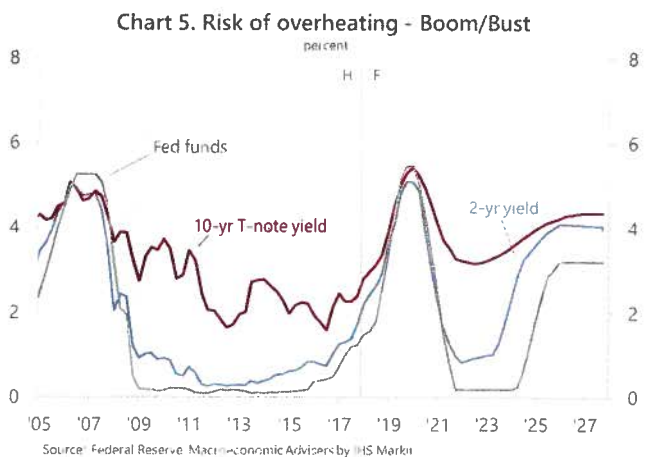
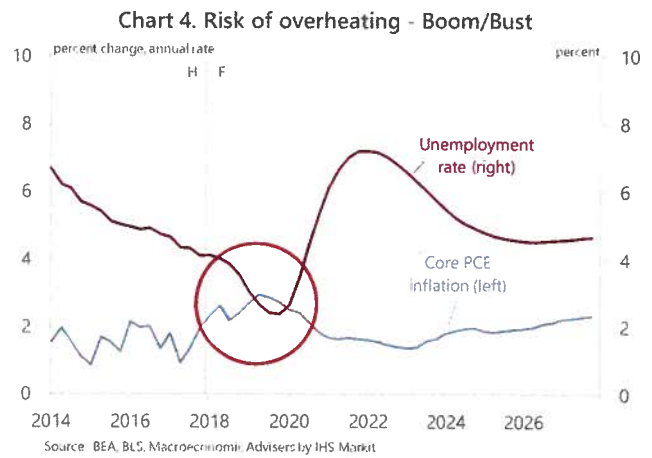
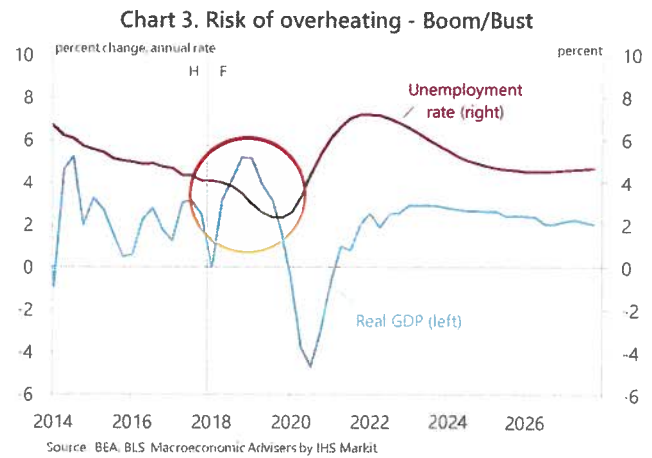
As the previous discussion suggests, we are concerned that it will be very difficult to achieve the “soft landing from below” and that policy tightening (both explicit monetary tightening from the Fed and implicit fiscal policy tightening when the current bout of stimulus runs its course) will play a role in tipping the economy into a recession. Broadly speaking there are two qualitative scenarios of concern. First, we expect the Fed to raise the federal funds rate target range four times this year. This is somewhat ahead of market expectations (although they are catching up) and so jumps in market interest rates are quite possible as expectations adjust. If such jumps occur, and if the boost to growth from the tax cut and spending increases proves to be not very large, then a sharp slowing in growth culminating in a recession could occur.

The more likely scenario is what we have termed the “Boom/Bust” scenario. In this case, the Federal Reserve has already set about on a course of interest rate increases it believes is necessary to normalize monetary policy and achieve outcomes for inflation and unemployment consistent with its dual mandate. Projections of economic growth by the Fed and others have been

raised to account for the expected stimulus from the recently legislated tax cut and spending increases. It is quite possible that growth could turn out to be significantly stronger than currently expected, especially if improved business confidence contributes to a dose of positive “animal spirits” resulting in more investment and hiring than is currently expected. That is, the makings of an economic boom are in place. In the Boom/Bust scenario presented below, we assume such a boom occurs with growth of GDP and employment sufficient to push the unemployment rate to below 2½% by mid-2019. GDP growth late in 2018 and early 2019 exceeds 5% (annualized), before later slowing as the effects of the stimulus wane and as rising rates and falling equity values take their toll. An unemployment rate of 2.4% would be the lowest in the US since during the Korean War.

In this scenario inflation begins to rise faster than in the base forecast, and we further assume a little bad luck on inflation, so that core consumer price inflation quickly rises above 2½%, touching 2.9% by early 2019. While we believe the Fed would welcome some temporary overshoot of its 2% inflation target, in this scenario inflation quickly exceeds the Fed’s comfort zone. See chart 4.

With inflation then well above the Federal Reserve’s 2% target and growth of GDP exceeding 5%, the Federal Reserve begins to tighten much more aggressively than in our base projection, and long-term interest rates surge. The top of the target range for the federal funds rate reaches 5½% by late 2019, briefly exceeding both the 2-year and 10-year Treasury Note yields. The surge in rates, along with the widening expectation that the surge in rates will push the economy into a recession is assumed to knock roughly 25% off the value of the S&P 500. This, of course, contributes to the eventual downturn. Home prices also soften, contributing to a significant decline in household net worth that results in a decline in consumer spending. Business fixed investment makes a hasty retreat. The sharp rise in interest rates in the US relative to abroad results in the broad, trade-weighted dollar exchange rate moving roughly 6½% above that in the base projection. The rise in the exchange rate reduces exports and boosts imports, contributing to a lower path of net ex-



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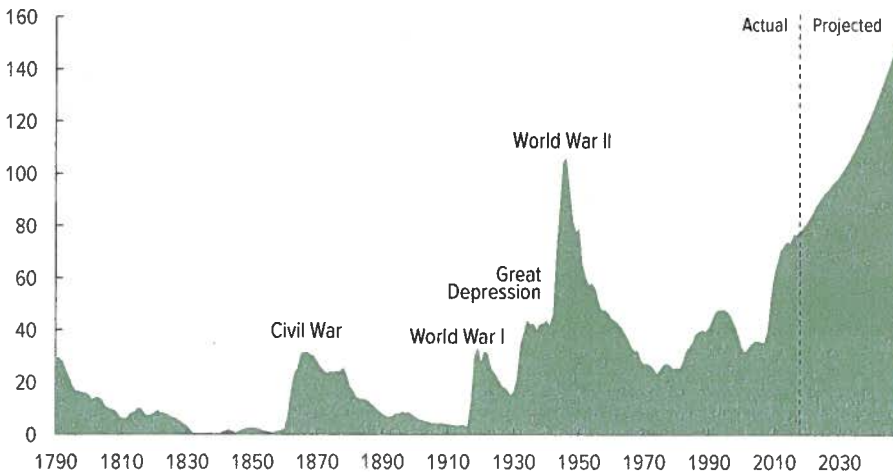
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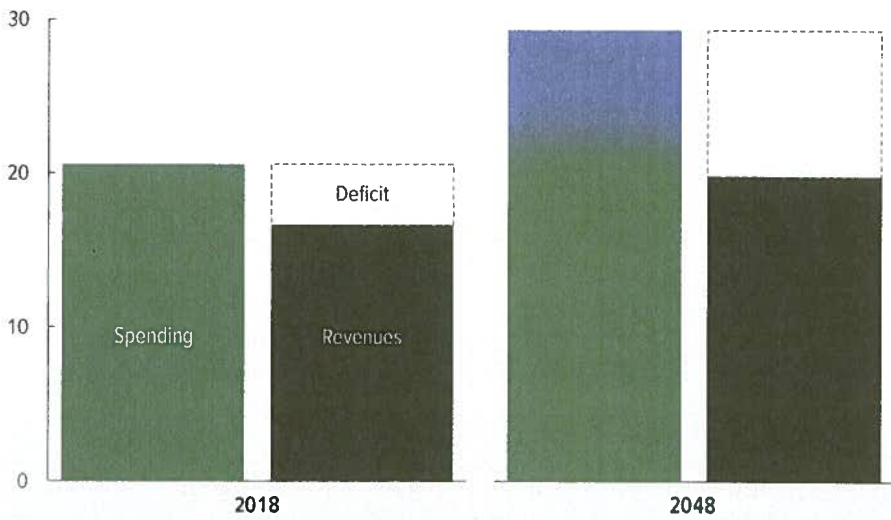
The 2018 Long-Term Budget Outlook

Percentage of GDP



Under current law, federal debt held by the public is projected to increase sharply over the next 30 years...

Percentage of GDP



...as spending grows more quickly than revenues do. Driving that spending growth are interest payments on the debt, major health care programs, and Social Security.

JUNE 2018

At a Glance

Each year, the Congressional Budget Office issues a set of long-term budget projections—that is, projections of what federal spending, revenues, deficits, and debt would be for the next 30 years if current laws generally did not change. This report is the latest in the series.

- In CBO's projections, the federal budget **deficit**, relative to the size of the economy, grows substantially over the next several years, stabilizes for a few years, and then grows again over the rest of the 30-year period, leading to federal **debt** held by the public that would approach 100 percent of gross domestic product (GDP) by the end of the next decade and 152 percent by 2048. Moreover, if lawmakers changed current laws to maintain certain policies now in place—preventing a significant increase in individual income taxes in 2026, for example—the result would be even larger increases in debt.
- The federal government's **net interest costs** are projected to climb sharply as interest rates rise from their currently low levels and as debt accumulates. Such spending would about equal spending for Social Security, currently the largest federal program, by the end of the projection period.
- **Noninterest spending** is projected to rise from 19 percent of GDP in 2018 to 23 percent in 2048, mainly because of increases in spending for Social Security and the major health care programs (primarily Medicare). Much of the spending growth for Social Security and Medicare results from the aging of the population. Growth in spending for Medicare and the other major health care programs is also driven by rising health care costs per person.
- **Revenues**, in contrast, are projected to be roughly flat over the next few years relative to GDP, rise slowly, and then jump in 2026. Thereafter, revenues would continue to rise relative to the size of the economy—although they would not keep pace with growth in spending. The projected growth in revenues is largely attributable to increases in individual income tax receipts.
- **Compared with last year's projections**, debt as a percentage of GDP is larger, but only modestly so, through 2041 and then lower thereafter. Deficits are higher as a percentage of GDP through 2025 and lower thereafter. That change is largely driven by changes in revenues and net interest costs. Revenues are initially lower as a share of GDP, but ultimately are higher because individual income taxes are now projected to grow more quickly as a result of provisions of Public Law 115-97 (originally called the Tax Cuts and Jobs Act and called the 2017 tax act in this report).



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Notes

The Congressional Budget Office's extended baseline shows the budget's long-term path under most of the same assumptions that the agency uses, in accordance with statutory requirements, in constructing its 10-year baseline. Both baselines incorporate the assumptions that current law generally remains unchanged but that some mandatory programs are extended after their authorizations lapse and that spending for Medicare and Social Security continues as scheduled even if their trust funds are exhausted.

Unless this report indicates otherwise, the years that it refers to are federal fiscal years, which run from October 1 to September 30 and are designated by the calendar year in which they end. Budgetary values, such as the ratio of debt or deficits to gross domestic product, are calculated on a fiscal year basis; economic variables, such as gross national product or interest rates, are calculated on a calendar year basis.

Numbers in the text, tables, and figures may not sum to totals because of rounding.

Unless the report specifies otherwise, Medicare outlays are presented net of offsetting receipts, which reduce outlays for the program.

As referred to in this report, the Affordable Care Act comprises the Patient Protection and Affordable Care Act; the health care provisions of the Health Care and Education Reconciliation Act of 2010; and the effects of subsequent judicial decisions, statutory changes, and administrative actions.

Data and supplemental information files—the data underlying the figures in this report, supplemental budget projections, and the demographic and economic variables underlying those projections—are posted along with the report on CBO's website.



The 2018 Long-Term Budget Outlook

Summary

At 78 percent of gross domestic product (GDP), federal debt held by the public is now at its highest level since shortly after World War II. If current laws generally remained unchanged, the Congressional Budget Office projects, growing budget deficits would boost that debt sharply over the next 30 years; it would approach 100 percent of GDP by the end of the next decade and 152 percent by 2048 (see Table 1). That amount would be the highest in the nation's history by far. Moreover, if lawmakers changed current law to maintain certain policies now in place—preventing a significant increase in individual income taxes in 2026, for example—the result would be even larger increases in debt.¹ The prospect of large and growing debt poses substantial risks for the nation and presents policymakers with significant challenges.

In this report, CBO presents its projections of federal spending, revenues, deficits, and debt for the next three decades and describes some possible consequences of those budgetary outcomes. This report's projections are consistent with the 10-year baseline budget and economic projections that CBO published in the spring of 2018.² They extend most of the concepts underlying those projections for an additional 20 years, and they reflect the macroeconomic effects of projected fiscal

policy over that 30-year period. All together, they constitute the agency's *extended baseline* projections.

CBO's 10-year and extended baseline projections are not predictions of budgetary outcomes. Rather, they represent the agency's best assessment of future spending, revenues, deficits, and debt under the assumption that current laws generally remain unchanged. They also give lawmakers a point of comparison from which to measure the effects of proposed legislation.

Why Are Projected Deficits Rising?

In CBO's projections, the federal budget deficit, relative to the size of the economy, would grow substantially over the next several years, stabilize for a few years, and then grow again over the rest of the 30-year period. In total, deficits would rise from 3.9 percent of GDP in 2018 to 9.5 percent in 2048. (Adjusted to exclude the effects of timing shifts that occur because fiscal year 2018 began on a weekend, the budget deficit in 2018 would be higher, at 4.2 percent of GDP).³ Those large budget deficits would arise because spending would grow steadily under current law, and revenues would not keep pace with that spending growth (see Figure 1).

In particular, over the next 30 years, spending as a share of GDP would increase for Social Security, the major health care programs (primarily Medicare), and interest on the government's debt. In CBO's projections, most of the spending growth for Social Security and Medicare results from the aging of the population: As members of

1. CBO will analyze the effects of alternative fiscal scenarios in a forthcoming report.
2. CBO bases its long-term projections on its most recent 10-year budget projections. Typically, those projections are from the *Budget and Economic Outlook*; however, CBO made a number of relatively small changes to its baseline projections since the publication of that report in April. As a result, the long-term budget projections in this report are based on CBO's adjusted April 2018 baseline. For information on those underlying budget projections, see Congressional Budget Office, *An Analysis of the President's 2019 Budget* (May 2018), www.cbo.gov/publication/53884. For information on CBO's most recent economic projections, see Congressional Budget Office, *The Budget and Economic Outlook: 2018 to 2028* (April 2018), www.cbo.gov/publication/53651.

3. When the first day of the fiscal year (October 1) falls on a weekend, certain monthly payments (mostly for mandatory benefit programs such as Medicare, Supplemental Security Income, and certain programs for veterans) normally made on that day are shifted to the preceding fiscal year. Accordingly, for those benefit programs, only 11 months of payments will be made in that fiscal year rather than the usual 12, and the previous year will have one more payment. October 1 fell on a weekend in 2017, and that will happen again in 2022, 2023, and 2028. The resulting shifts in payments noticeably boost projected spending and deficits in 2022 and 2028; they reduce spending and the deficit in 2018 and 2024.

Table 1.

Key Projections in CBO's Extended Baseline

Percentage of Gross Domestic Product

	2018	Projected Annual Average		
		2019–2028	2029–2038	2039–2048
Revenues				
Individual income taxes	8.2	8.9	10.1	10.7
Payroll taxes	5.9	5.9	6.0	6.0
Corporate income taxes	1.2	1.5	1.4	1.4
Other ^a	1.4	1.2	1.3	1.5
Total Revenues	16.6	17.5	18.8	19.5
Outlays				
Mandatory				
Social Security	4.9	5.5	6.2	6.3
Major health care programs ^b	5.2	6.0	7.4	8.7
Other	2.6	2.5	2.3	2.1
Subtotal	12.6	13.9	15.9	17.2
Discretionary	6.3	5.7	5.4	5.5
Net interest	1.6	2.7	3.6	5.3
Total Outlays	20.6	22.4	24.9	27.9
Deficit	-3.9	-4.9	-6.1	-8.4
Debt Held by the Public at the End of the Period	78	96	118	152
Memorandum:				
Social Security				
Revenues ^c	4.4	4.5	4.6	4.5
Outlays ^d	4.9	5.5	6.2	6.3
Contribution to the Federal Deficit ^e	-0.4	-1.0	-1.6	-1.9
Medicare				
Revenues ^c	1.4	1.5	1.6	1.6
Outlays ^d	3.5	4.3	5.7	6.8
Offsetting Receipts	-0.6	-0.8	-1.0	-1.3
Contribution to the Federal Deficit ^e	-1.5	-2.1	-3.0	-3.9
Gross Domestic Product at the End of the Period (Trillions of dollars)	20.1	29.8	44.1	65.0

Source: Congressional Budget Office.

This table satisfies a requirement specified in section 3111 of S. Con. Res. 11, the Concurrent Resolution on the Budget for Fiscal Year 2016.

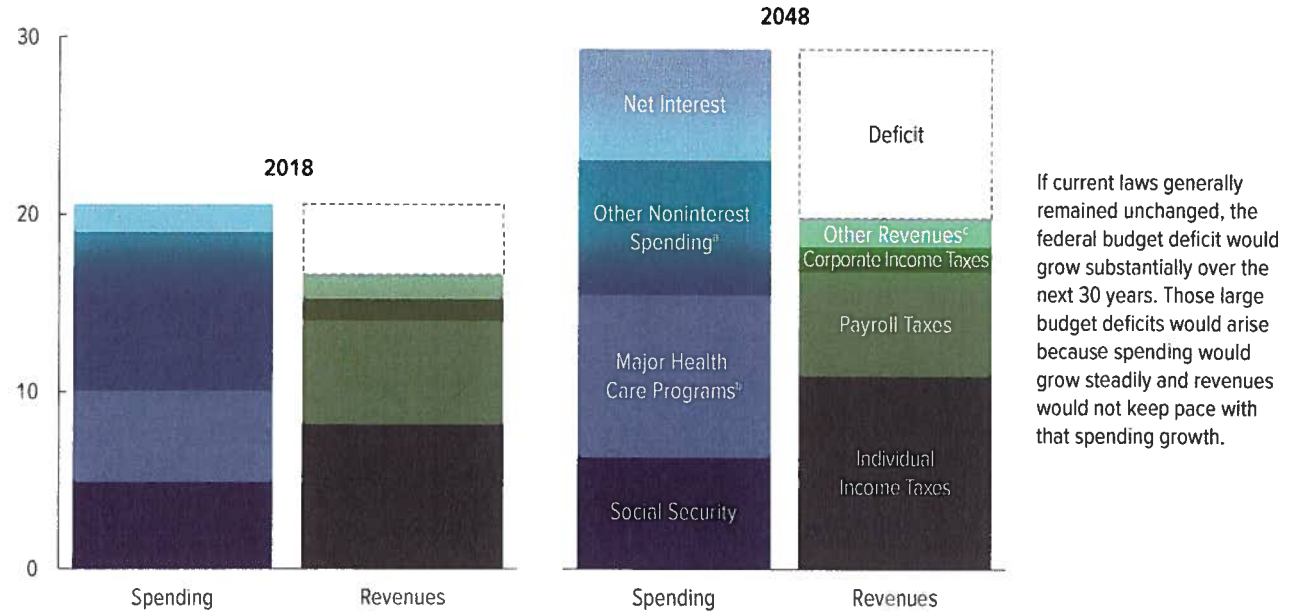
The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

- a. Consists of excise taxes, remittances to the Treasury from the Federal Reserve System, customs duties, estate and gift taxes, and miscellaneous fees and fines.
- b. Consists of spending for Medicare (net of premiums and other offsetting receipts), Medicaid, and the Children's Health Insurance Program, as well as outlays to subsidize health insurance purchased through the marketplaces established under the Affordable Care Act and related spending.
- c. Includes all payroll taxes for the program other than those paid by the federal government on behalf of its employees (which are intragovernmental transactions). Also includes income taxes paid on Social Security benefits, which are credited to the trust funds. Excludes interest credited to the trust funds.
- d. Excludes discretionary outlays related to administration of the program.
- e. The contribution to the deficit shown here differs from the change in the trust fund balance for the program because it excludes intragovernmental transactions, interest earned on balances, and outlays related to administration of the program.

Figure 1.

The Federal Budget in CBO's Extended Baseline

Percentage of Gross Domestic Product



If current laws generally remained unchanged, the federal budget deficit would grow substantially over the next 30 years. Those large budget deficits would arise because spending would grow steadily and revenues would not keep pace with that spending growth.

Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

- a. Consists of all federal spending other than that for Social Security, the major health care programs, and net interest.
- b. Consists of spending for Medicare (net of premiums and other offsetting receipts), Medicaid, and the Children's Health Insurance Program, as well as outlays to subsidize health insurance purchased through the marketplaces established under the Affordable Care Act and related spending.
- c. Consists of excise taxes, remittances to the Treasury from the Federal Reserve System, customs duties, estate and gift taxes, and miscellaneous fees and fines.

the baby-boom generation (people born between 1946 and 1964) age and as life expectancy continues to rise, the percentage of the population age 65 or older will grow sharply, boosting the number of beneficiaries of those programs. Growth in spending on Medicare and the other major health care programs is also driven by rising health care costs per person. In addition, the federal government's net interest costs are projected to climb sharply as a percentage of GDP as interest rates rise from their currently low levels and as debt accumulates.

That spending growth would be only partially offset by declining spending for other programs. Mandatory spending other than that for Social Security and the major health care programs—such as spending for federal employees' pensions and for various income security programs—is projected to decrease as a percentage of

GDP. Discretionary spending is projected to decline in most years over the next decade and then roughly stabilize as a percentage of GDP. (Mandatory spending is generally governed by provisions of permanent law, whereas discretionary spending is controlled by annual appropriation acts.)

Revenues, in contrast, would take a different path. They are projected to be roughly flat over the next few years relative to GDP, rise slowly, and then jump in 2026. Revenues would sharply increase that year because most of the provisions of Public Law 115-97 (originally called the Tax Cuts and Jobs Act and called the 2017 tax act in this report) that directly affect the individual income tax rate are set to expire at the end of calendar year 2025. (The 2017 tax act lowered individual income taxes beginning in 2018.) Thereafter, revenues would continue

to rise relative to the size of the economy—although they would not keep pace with spending growth.

The projected growth in revenues beyond 2028 is largely attributable to increases in individual income tax receipts. Those receipts are projected to grow mainly because income would rise more quickly than the price index that is used to adjust tax brackets and other parameters of the tax system. As a result, more income would be pushed into higher tax brackets over time. (Because of provisions of the 2017 tax act, the effect of real bracket creep in this year's projections is slightly greater than the effect that CBO projected in prior years.) Combined receipts from all other sources are projected to increase slightly as a percentage of GDP.

What Might Happen If Current Laws Remained Unchanged?

Large and growing federal debt over the coming decades would hurt the economy and constrain future budget policy. The amount of debt that is projected under the extended baseline would reduce national saving and income in the long term; increase the government's interest costs, putting more pressure on the rest of the budget; limit lawmakers' ability to respond to unforeseen events; and increase the likelihood of a fiscal crisis. (In that event, investors would become unwilling to finance the government's borrowing unless they were compensated with very high interest rates.)

How Does CBO Make Its Long-Term Budget Projections?

CBO's extended baseline, produced once a year, shows the budget's long-term path under most of the same assumptions that the agency uses in constructing its 10-year baseline. Both baselines incorporate these assumptions: current laws will generally remain unchanged, mandatory programs will be extended after their authorizations lapse, and spending for Medicare and Social Security will continue as scheduled even if their trust funds are exhausted. CBO makes those assumptions to conform to statutory requirements.

Some projections, such as those for Social Security spending and collections of individual income taxes, incorporate detailed estimates of how people would be affected by particular elements of programs or by the tax code. Other projections reflect past trends and CBO's assessments of how those trends would evolve if current laws generally remained unchanged.⁴

CBO's budget projections are built on its demographic and economic projections. CBO estimates that the population will grow more slowly than it has in the past and will be older, on average. CBO also anticipates that if current laws generally did not change, real GDP—that is, GDP with the effects of inflation removed—would increase by 1.9 percent per year, on average, over the next 30 years. That rate is nearly 1 percentage point lower than the annual average growth rate of real GDP over the past 50 years. That expectation of slower economic growth in the future is attributable to several factors—most notably, slower growth of the labor force. Projected growth in output is also held down by the effects of changes in fiscal policy under current law—above all, by the reduction in private investment that is projected to result from rising federal deficits.

How Uncertain Are Those Projections?

If current laws governing taxes and spending remained generally the same, debt would rise as a percentage of GDP over the next 30 years, according to CBO's central estimate (the middle of the distribution of potential outcomes). That projection is very uncertain, however, so the agency examined in detail how debt would change if four key factors were higher or lower than their levels in the extended baseline. Those four factors are labor force participation, productivity in the economy, interest rates on federal debt, and health care costs per person. Other factors—such as an economic depression, a major war, or unexpected changes in rates of fertility, immigration, or mortality—also could affect the trajectory of debt. Taking into account a range of uncertainty around CBO's central projections of those four key inputs, CBO concludes that despite the considerable uncertainty of long-term projections, debt as a percentage of GDP would probably be greater—in all likelihood, much greater—than it is today if current laws remained generally unchanged.

How Large Would Changes in Spending or Revenues Need to Be to Reach Certain Goals for Federal Debt?

CBO estimated the size of changes that would be needed to achieve a chosen goal for federal debt. For example, if lawmakers wanted to reduce the amount of debt in 2048 to 41 percent of GDP (its average over the past 50 years), they might cut noninterest spending, increase revenues, or take a combination of both approaches to make changes

4. For more information about how CBO makes long-term projections about the economy and federal budget, see

Congressional Budget Office, *An Overview of CBOLT: The Congressional Budget Office Long-Term Model* (April 2018), www.cbo.gov/publication/53667.

that equaled 3.0 percent of GDP each year starting in 2019. (In dollar terms, that amount would total about \$630 billion in 2019.) If, instead, policymakers wanted debt in 2048 to equal its current share of GDP (78 percent), the necessary changes would be smaller (although still substantial), totaling 1.9 percent of GDP per year (or about \$400 billion in 2019). The longer lawmakers waited to act, the larger the policy changes would need to be to reach any particular goal for federal debt.

How Have CBO's Projections Changed Over the Past Year?

Compared with last year's projections, CBO's current projections of debt as a share of GDP are higher through 2041 and lower thereafter. CBO now projects that debt measured as a share of GDP would be 3 percentage points lower in 2047 than it projected last year. (The previous edition of this volume showed projections through 2047.)⁵ The increase in debt through 2041 stems primarily from tax and spending legislation enacted since then that boosted projected deficits through 2025—especially the 2017 tax act, the Bipartisan Budget Act of 2018 (P.L. 115-123), and the Consolidated Appropriations Act, 2018 (P.L. 115-141). In particular, the budgetary effects of the tax act are expected to peak during the middle of the next decade. In later years, the effects are expected to be modest, although their precise magnitudes are uncertain.

Deficits are smaller after 2025 than CBO projected last year because of lower projections as a share of GDP of noninterest spending and because of projections of revenues that are the same or higher than CBO estimated last year. The smaller deficits result in lower debt as a share of GDP after 2041 than CBO projected last year.

The Budget Outlook for the Next 30 Years

CBO's extended baseline shows a substantial imbalance in the federal budget over the next three decades. Growing budget deficits would lead to rising amounts of federal debt, which in turn would increase pressures on the federal budget and dampen economic growth.

Rising Budget Deficits

If current laws generally remained unchanged, the federal budget deficit would grow substantially over the next few years. It would rise to 4.2 percent of GDP this year (up from 3.5 percent last year) and then climb to 5.1 percent

by 2022 (adjusted to exclude shifts in timing). The deficit would then continue to rise in dollar terms but stabilize as a percentage of GDP for the rest of the 10-year baseline period—although it would remain much higher than its 50-year average of 2.9 percent. In the following two decades, deficits would become notably larger again relative to the size of the economy as the gap between spending and revenues grew (see Figure 2). As a result, the deficit would rise from 4.8 percent of GDP in 2028 (adjusted to exclude shifts in timing) to 9.5 percent in 2048.

CBO projects that mandatory spending would rise significantly as a percentage of GDP under current law, driving up spending relative to revenues. The aging of the population will lead to increased outlays for Social Security and Medicare, mandatory programs that primarily benefit people 65 or older. Medicare outlays would also climb as a result of rising health care costs per person, in CBO's estimation. By 2048, under current law, federal spending through those two programs as well as Medicaid—the federal health care program for people with limited income and resources—for people age 65 or older would account for about half of all federal noninterest spending, compared with about two-fifths today. Moreover, because federal debt is projected to grow and interest rates are expected to rise from their currently low levels, interest payments on the government's debt would rise sharply.

All told, under CBO's extended baseline, federal spending would increase from today's 21 percent of GDP to 23 percent in 2028 (adjusted to exclude shifts in timing; that spending would be 24 percent if timing shifts were included) and to 29 percent by 2048. (Federal spending has averaged 20 percent of GDP over the past 50 years.)

Meanwhile, if current laws generally remained unchanged, revenues would remain near 16.6 percent of GDP for a few years (their current level), rise steadily to 17.5 percent by 2025, and then increase sharply in 2026 following the scheduled expiration of many provisions of the 2017 tax act.⁶ Revenues are projected to increase to 18.1 percent of GDP in that year and then rise to 18.5 percent by 2028. Beyond 2028, revenues would grow faster than the economy but more slowly

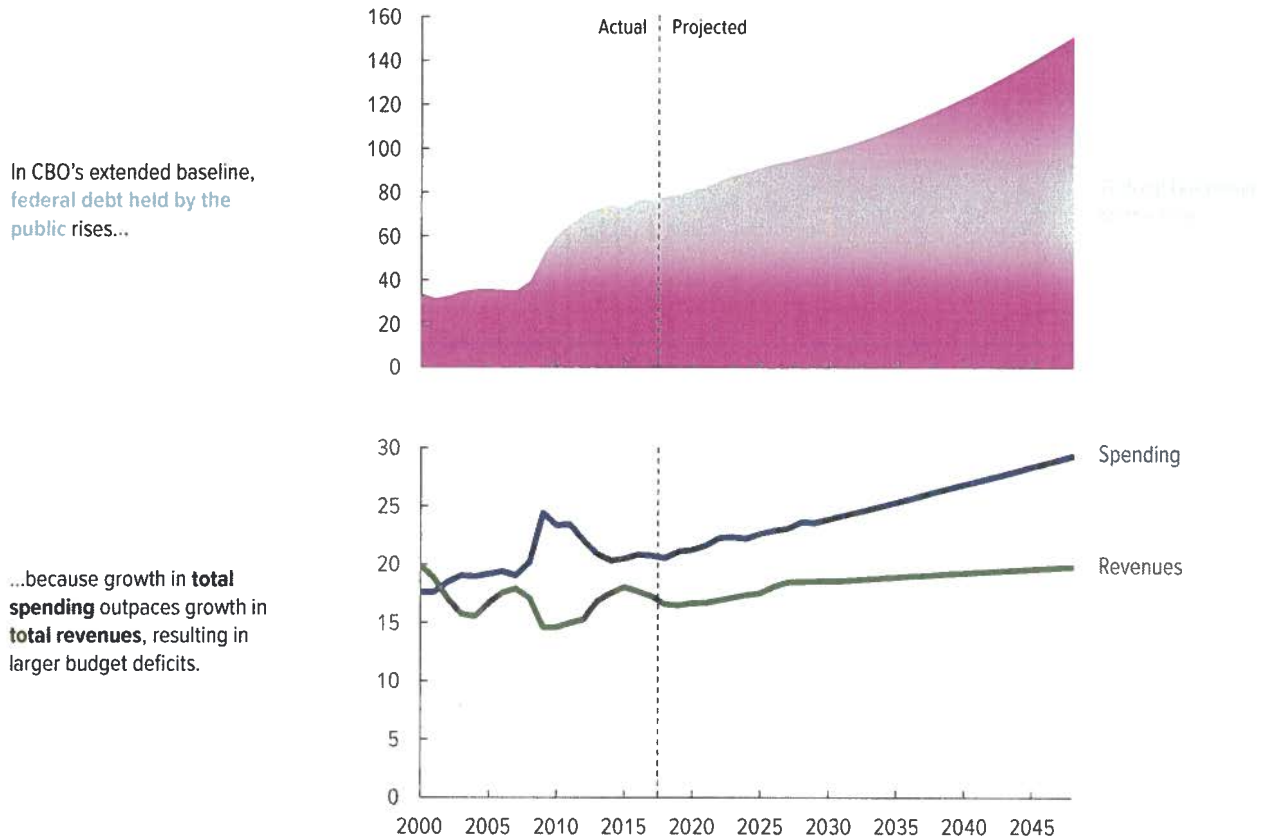
5. See Congressional Budget Office, *The 2017 Long-Term Budget Outlook* (March 2017), www.cbo.gov/publication/52480.

6. That law made many significant changes to the individual and corporate income tax systems. Those changes, on net, lowered taxes owed by most individuals and businesses beginning in calendar year 2018. Nearly all of the changes to individual income taxes are set to expire at the end of calendar year 2025.

Figure 2.

Federal Debt, Spending, and Revenues

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

GDP = gross domestic product.

Continued

than spending. In part, revenues would rise because of real bracket creep, which pushes more income into higher tax brackets as people's income rises faster than inflation. In addition, revenues would grow rapidly from a new excise tax on certain employment-based health insurance plans if that law took effect, as scheduled, in 2022. All told, CBO projects, revenues would reach 19.8 percent of GDP in 2048. Although that share would exceed the 50-year average of about 17 percent, it would still fall short of projected spending.

Greater Accumulation of Federal Debt

Debt held by the public represents the amount that the federal government has borrowed in financial markets by issuing Treasury securities to pay for its operations

and activities.⁷ Measuring debt as a percentage of GDP is useful for comparing amounts of debt in different

7. When the federal government borrows in financial markets, it competes with other participants for financial resources and, in the long term, crowds out private investment, thus reducing economic output and income. By contrast, federal debt held by trust funds and other government accounts represents internal transactions of the government and does not directly affect financial markets. (Together, that debt and debt held by the public make up gross federal debt.) For more discussion, see Congressional Budget Office, *Federal Debt and Interest Costs* (December 2010), www.cbo.gov/publication/21960. Several factors not directly included in the budget totals also affect the government's need to borrow from the public. They include fluctuations in the government's cash balance, as well as the cash flows of the financing accounts used for federal credit programs.

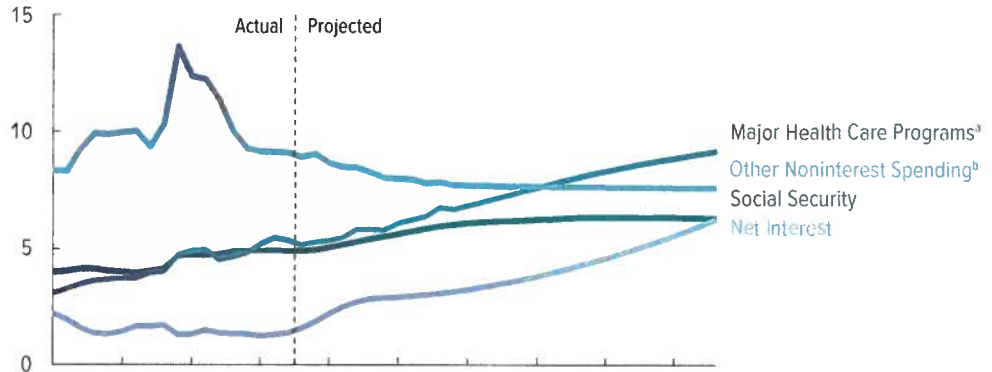
Figure 2.

Continued

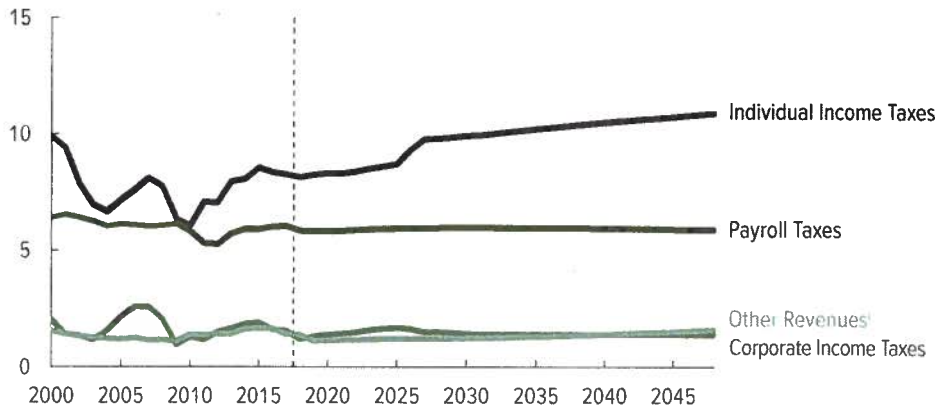
Federal Debt, Spending, and Revenues

Percentage of Gross Domestic Product

Spending on certain components of the budget—Social Security, the major health care programs, and net interest—is projected to rise relative to GDP; other spending, in total, is projected to decline.



Increases in individual income taxes account for most of the rise in total revenues relative to GDP. Receipts from all other sources, taken together, are projected to be slightly higher in 2048 than they are today.



- a. Consists of spending for Medicare (net of premiums and other offsetting receipts), Medicaid, and the Children’s Health Insurance Program, as well as outlays to subsidize health insurance purchased through the marketplaces established under the Affordable Care Act and related spending.
- b. Consists of all federal spending other than that for Social Security, the major health care programs, and net interest.
- c. Consists of excise taxes, remittances to the Treasury from the Federal Reserve System, customs duties, estate and gift taxes, and miscellaneous fees and fines.

years because it accounts for changes in price levels, population, output, and income—all of which affect the nation’s ability to finance the debt. The ratio of debt to GDP places the effects of potential adjustments to the budget within the context of the nation’s resources. Examining whether debt as a percentage of GDP is increasing is therefore a simple and meaningful way to assess the budget’s sustainability.

Federal debt held by the public has ballooned over the past decade. At the end of 2007, that debt stood at 35 percent of GDP, but deficits arising from the 2007–2009 recession and the resulting policy responses caused it to grow sharply over the next five years. By the end of 2012, debt as a share of GDP had doubled to

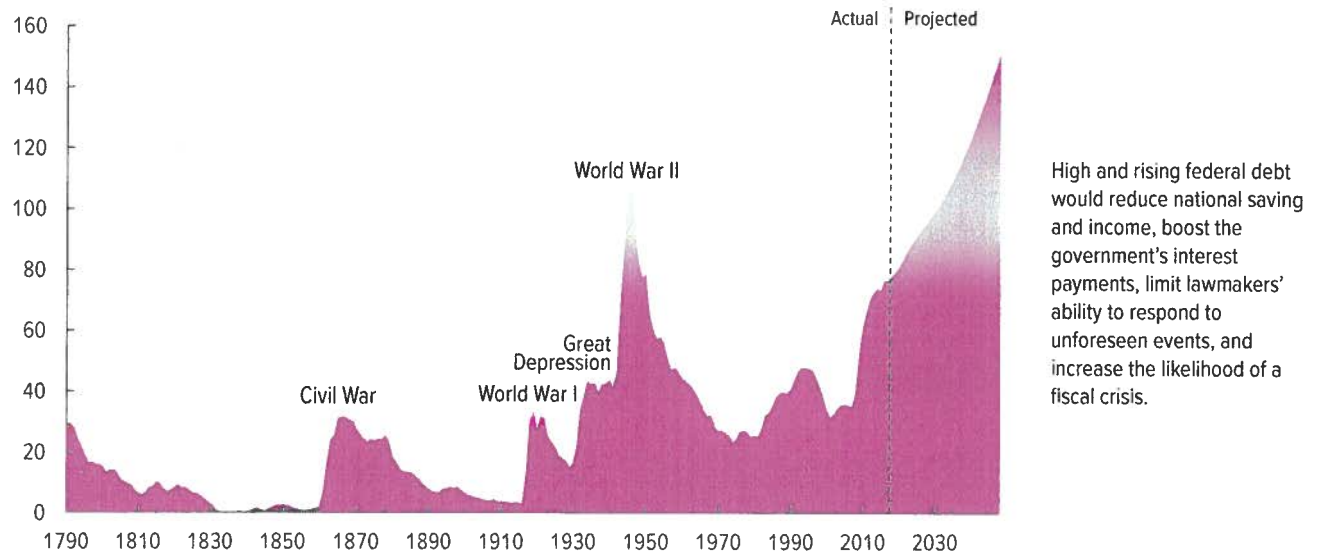
70 percent. Since then, the upward trajectory has generally continued, and debt is projected to reach 78 percent of GDP by the end of this year—a very high amount by historical standards. (For comparison, such debt has averaged 41 percent of GDP over the past 50 years.) During only one other period in U.S. history—from 1944 through 1950, because of the surge in federal spending during World War II—has that debt exceeded 70 percent of GDP (see Figure 3).

If current laws generally remained unchanged, the gap between spending and revenues would grow substantially through 2022, stabilize for a few years, and then continue to widen. As a result, federal debt as a percentage of GDP would reach unprecedented levels. CBO projects that debt

Figure 3.

Federal Debt Held by the Public

Percentage of Gross Domestic Product



High and rising federal debt would reduce national saving and income, boost the government's interest payments, limit lawmakers' ability to respond to unforeseen events, and increase the likelihood of a fiscal crisis.

Source: Congressional Budget Office.

would rise to 96 percent of GDP by 2028, and six years later, in 2034, it would surpass the peak of 106 percent recorded in 1946. By 2048, federal debt would reach 152 percent of GDP—significantly larger than the average of the past five decades—and would be on track to grow even larger. Moreover, if lawmakers changed current laws to maintain certain policies now in place—preventing a significant increase in individual income taxes in 2026, for example—the result would be even larger increases in debt.

Consequences of a Large and Growing Federal Debt

The burgeoning federal debt over the coming decades would have these effects:

- Reduce national saving and income in the long term;
- Increase the government's interest costs, putting more pressure on the rest of the budget;
- Limit lawmakers' ability to respond to unforeseen events; and
- Increase the likelihood of a fiscal crisis, a situation in which the interest rate on federal debt rises abruptly, dramatically increasing the cost of government borrowing.

Less National Saving and Lower Income

Large federal budget deficits over the long term would reduce investment, resulting in lower national income and higher interest rates than would otherwise be the case. If the government borrowed more money, a greater amount of household and business saving would be used to buy Treasury securities, thus crowding out private investment. Both the government and private borrowers would face higher interest rates to compete for savings. Although those higher rates would strengthen the incentive to save, the increased government borrowing would exceed the rise in saving by households and businesses. As a result, total saving by all sectors of the economy (national saving) would be lower, as would private investment and economic output. (Private investment would be affected less than national saving because higher interest rates tend to attract more foreign capital to the United States and induce U.S. savers to keep more of their money at home.) With less investment in capital goods—such as factories and computers—workers would be less productive. Because productivity growth is the main driver of growth in people's real compensation, decreased investment also would reduce average compensation per hour, making people less inclined to work. CBO's extended baseline incorporates those economic effects as well as the feedback to the budget from negative effects on the economy.

Greater Pressure on the Budget From Higher Interest Costs

Current net interest costs are relatively small because interest rates have been so low. Under CBO's extended baseline, however, rising interest rates and increased federal borrowing boost net interest costs substantially. By 2045, those costs would surpass discretionary spending for the first time since 1962 (the earliest year for which relevant data are available).

Over the next few years, the unemployment rate is expected to decline and inflation is projected to rise. CBO expects the Federal Reserve to respond to those developments by continuing to raise the federal funds rate to keep inflation close to the central bank's long-term goal.⁸ In addition, long-term interest rates are projected to rise gradually relative to short-term rates as the term premium (the premium paid to bondholders for the extra risk associated with holding longer-term bonds) moves up from its recent low levels. The term premium is projected to rise as investors gain more confidence in global economic growth, the demand for long-term Treasury securities as a hedge against unexpected declines in inflation dissipates, and the Federal Reserve reduces its holdings of long-term assets. CBO projects that interest rates would eventually settle at levels consistent with factors such as productivity growth, the demand for investment, and federal deficits. Under the extended baseline, interest costs are much higher than they would be if deficits were smaller and interest rates were lower.

The higher the government's interest costs, the more difficult it would be to achieve any particular target for deficit reduction. That is because, in order to reduce the deficit, tax increases, spending reductions, or both would have to be greater. Such policy changes could affect the economy and people's well-being. If, for example, policy changes included an increase in marginal tax rates (the rates that apply to an additional dollar of income), people's incentives to work and save would diminish as tax rates rose.⁹ Alternatively, if policy changes included a reduction in federal spending for investment, both output and income would be lower than they would

have been if that spending had not been reduced.¹⁰ In contrast, if reductions in, say, Social Security benefits were made to lessen spending, people might feel compelled to work more to replace that lost income, thus increasing output.

Reduced Ability to Respond to Unforeseen Events

When outstanding debt is relatively small, the federal government is able to borrow money at lower rates to cover unexpected costs, such as those that arise from recessions, financial crises, natural disasters, or wars. By contrast, when outstanding debt is large, the government has less flexibility to address financial and economic crises. A large debt also can compromise a country's national security by constraining military spending in times of international crisis or by limiting the government's ability to prepare for (or respond to) such a crisis.

At the outset of the 2007–2009 recession, when federal debt held by the public was below 40 percent of GDP, lawmakers had the flexibility necessary to respond to the financial crisis. The recession resulted in lower output and income, which caused sharp declines in tax revenues and increases in mandatory spending. The policy responses included increases in federal spending to stabilize the financial sector, boost investment in infrastructure, and add to income security programs, along with temporary decreases in business and payroll taxes. As a result, by 2012, federal debt as a percentage of GDP had doubled from its 2007 level.

If another recession or fiscal crisis occurred and if federal debt was at its current level or higher, the government might have a more difficult time implementing similar costly actions in response. As a result, such events could have larger negative effects on the economy and on people's well-being. Moreover, the reduced financial flexibility and increased dependence on foreign investors that would accompany high and rising debt could weaken U.S. international leadership.

Greater Chance of a Fiscal Crisis

A large and growing federal debt would increase the chance of a fiscal crisis in the United States—a situation in which it would become increasingly difficult to finance federal borrowing and investors would have to be compensated with continuously increasing interest

8. The federal funds rate is the interest rate financial institutions charge each other for overnight loans of their monetary reserves.

9. See Congressional Budget Office, *How the Supply of Labor Responds to Changes in Fiscal Policy* (October 2012), www.cbo.gov/publication/43674.

10. For more information, see Congressional Budget Office, *The Macroeconomic and Budgetary Effects of Federal Investment* (June 2016), www.cbo.gov/publication/51628.

rates.¹¹ Those concerns could perpetuate a cycle: Higher interest rates would increase concerns over repayment, which would continue to raise interest rates even further. Even in the absence of a full-blown crisis, such risks would lead to higher rates and borrowing costs for the U.S. government and the private sector.

In a fiscal crisis, dramatic increases in Treasury rates would reduce the market value of outstanding government securities, and the resulting losses—for mutual funds, pension funds, insurance companies, banks, and other holders of government debt—could be large enough to cause some financial institutions to fail. Because the United States currently benefits from the U.S. dollar being the world's reserve currency and because the federal government borrows in dollars, it is less likely that a sudden fiscal crisis would lead to a catastrophic financial crisis similar to those that befell Argentina, Greece, or Ireland. As one example, in the event of a dramatic increase in interest rates, the Federal Reserve could buy Treasury securities and thereby limit losses to bondholders. However, such moves, if extensive, would ultimately lead to high inflation, a sharp depreciation in the value of the dollar, or both.¹² Those developments would reduce the value of U.S. assets.

No one can accurately predict whether or when a fiscal crisis might occur in the United States or how it would unfold. In particular, the debt-to-GDP ratio has no identifiable tipping point to indicate that a crisis is likely or imminent. Nonetheless, a large and rising federal debt would almost certainly increase the risk of a fiscal crisis.

The likelihood of a fiscal crisis also depends on economic conditions. If investors anticipate continued economic growth and low interest rates, they are generally less concerned about the government's debt burden. Conversely, substantial debt can reinforce a more generalized concern about the economy. Thus, fiscal crises around the world often have begun during recessions and, in turn, have exacerbated them.

If a fiscal crisis occurred in the United States, policymakers would have limited—and unappealing—options for

responding. The government would need to undertake some combination of three approaches: restructure the debt (that is, seek to modify the contractual terms of existing obligations), use monetary policy to raise inflation above expectations, or implement large and abrupt spending cuts or tax increases.

Demographic and Economic Trends That Underlie CBO's Long-Term Projections

Demographic and economic projections are key determinants of the long-term budget outlook. Through 2028, the projections in this report are the same as those that underlie CBO's 10-year baseline; for later years, the agency projects conditions according to its assessment of long-term trends. (Appendix A describes CBO's demographic and economic projections.) In addition, the economic projections take into account the effects that projected fiscal policies—in particular, increased federal borrowing and rising effective marginal tax rates—would have on the economy. Such effects would result in a smaller labor supply, a smaller stock of capital, and lower output than would otherwise be the case.

Demographic Projections

The size and age profile of the U.S. population affect the federal budget and the nation's economy. For example, the composition of the population influences the size of the labor force and the number of beneficiaries of Social Security and other federal programs. In CBO's projections, the U.S. population increases from 332 million at the beginning of this year to 392 million in 2048, expanding by 0.6 percent per year, on average. That annual rate of growth is slower than the rate of the past 50 years (0.9 percent). The share of the population age 65 or older also rises over the coming decades, maintaining a long-standing historical trend. By 2048, 22 percent of the population would be age 65 or older, compared with 16 percent today (see Figure 4).

To estimate growth in the U.S. population, CBO projects rates of fertility, immigration, and mortality. The total fertility rate is calculated as the sum of fertility rates for women between 15 and 49 in a given year and represents the average number of children that a woman would have in her lifetime.¹³ In general, that rate tends to decline during recessions and rebound during recoveries. Instead of rebounding after the

11. For more information, see Congressional Budget Office, *Federal Debt and the Risk of a Fiscal Crisis* (July 2010), www.cbo.gov/publication/21625. That report points out, for example, that during past fiscal crises, Argentina, Greece, and Ireland were forced to make difficult choices in the face of sharp increases in interest rates on government debt.

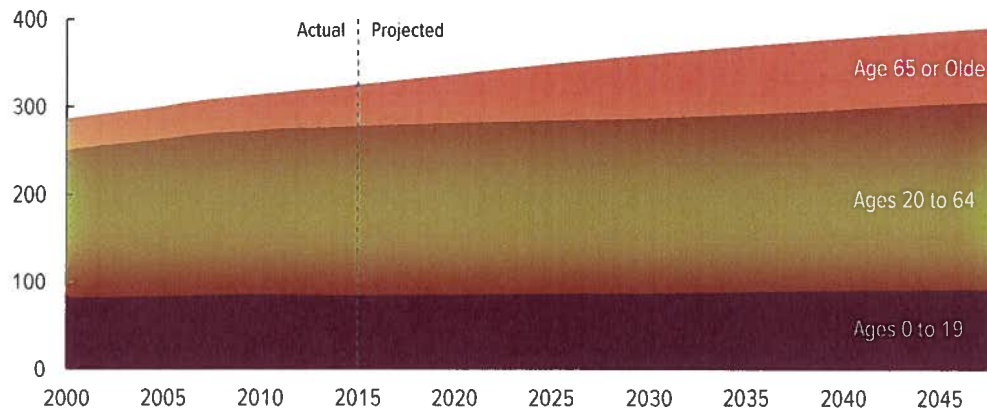
12. Over time, such currency debasement would erode the status of the U.S. dollar as the world's reserve currency.

13. The total fertility rate can also be defined as the average number of children that a woman would have if, in each year of her life, she experienced the birth rates observed or assumed for that year and if she survived her entire childbearing period.

Figure 4.

Population, by Age Group

Millions of People



The share of the population age 65 or older is projected to rise over the coming decades, maintaining a long-standing historical trend.

Source: Congressional Budget Office.

This figure shows actual data through calendar year 2015, the most recent year for which such data are available.

2007–2009 recession, however, the fertility rate fell. In 2007, the rate was 2.1 births per woman, but it declined to 1.9 by 2010 and has remained below that point since then. CBO expects the total fertility rate to be 1.9 for the next 30 years.¹⁴

Under current law, the rate of net annual immigration to the United States is expected to rise slightly over the next three decades. CBO projects that rate would inch up from an average of 3.1 per thousand people in the U.S. population over the next decade to 3.2 in 2048. That rate, which accounts for anyone who either enters or leaves the United States in any year, is slightly higher than the average net annual immigration rates since the end of the 2007–2009 recession. On balance, CBO projects that the increase in net annual immigration over the next decade would be mostly driven by higher numbers of legal permanent residents. The annual increase in the number of legal temporary and unauthorized immigrants is projected to be relatively steady over the next 10 years. Beyond 2028, the annual average rate of growth is the same for different categories of immigrants in CBO’s projections. Using that simplified approach, CBO projects that net annual immigration would grow at an average rate of 0.6 percent annually through 2048,

slightly faster than the average rate of growth in the U.S. population overall.¹⁵

Mortality rates are projected to improve over the next 30 years, on average. Those rates, which measure the number of deaths per thousand people in the population, are projected to decline at the same rates that were recorded for each age and sex group from 1950 to 2014. Improved, or lower, mortality rates mean higher life expectancy. CBO projects an average life expectancy at birth of 82.8 years in 2048, compared with 79.2 years in 2018.¹⁶ Similarly, CBO projects life expectancy at age 65 in 2048 to be 21.7 years, or 2.2 years longer than life expectancy at age 65 in 2018.

Economic Projections

The performance of the U.S. economy in coming decades will affect the federal government’s spending, revenues, and debt accumulation. CBO makes its economic projections by projecting trends in key economic

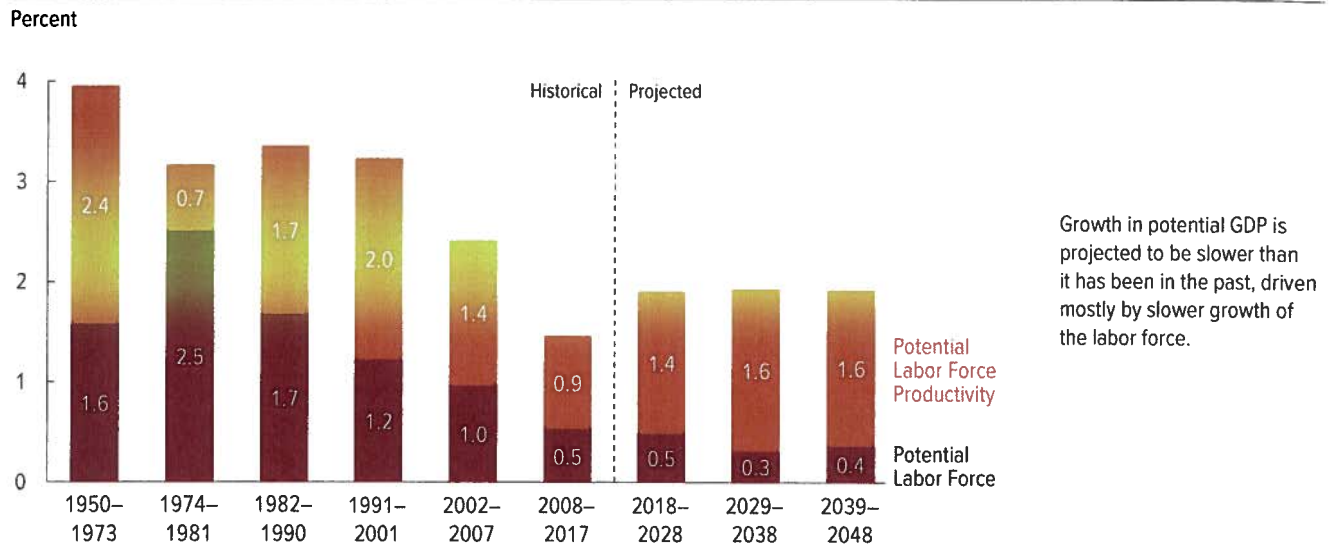
14. Recent data show that low total fertility rates have persisted since the recession, remaining below 1.9. See Brady E. Hamilton and others, *Births: Provisional Data for 2017*, Vital Statistics Rapid Release Report 4 (National Center for Health Statistics, May 2018), www.cdc.gov/nchs/nvss/vsr/r/reports.htm.

15. That rate is based on the Census Bureau’s projections for late in the coming decade. See Census Bureau, “2014 National Population Projections: Summary Tables,” Table 1, <https://go.usa.gov/xQAbu>. The Census Bureau has recently released a new set of projections, but information from those projections has not been incorporated in this analysis. In those projections, the population is slightly smaller than the Census Bureau projected in 2014.

16. Life expectancy as used here is period life expectancy, which is the amount of time that a person in a given year would expect to survive beyond his or her current age on the basis of that year’s mortality rates for various ages.

Figure 5.

Average Annual Growth of Real Potential GDP in CBO's Extended Baseline



Source: Congressional Budget Office.

Real potential GDP is the maximum sustainable output of the economy adjusted to remove the effects of inflation. The two contributing factors are potential labor force productivity (the ratio of potential GDP to the potential labor force) and the potential labor force (the labor force adjusted for ups and downs in the business cycle).

GDP = gross domestic product.

variables, such as the size and composition of the labor force, capital accumulation, productivity, inflation, and interest rates. The agency also considers ways in which fiscal policy influences economic activity.

In CBO's projections, growth in potential (maximum sustainable) GDP in the future is slower than it has been over the past 50 years. Under its extended baseline, CBO projects an increase in real potential GDP of 1.9 percent per year, on average, over the next 30 years, compared with its historical growth rate of 2.8 percent. That slower economic growth is attributable to several factors—most notably, slower growth of the potential labor force (the labor force adjusted for ups and downs in the business cycle). In CBO's projections, the potential labor force grows by 0.4 percent per year, on average, through 2048 (see Figure 5); the average annual growth rate over the 1968–2017 period was 1.5 percent. That slower projected growth of the potential labor force mainly results from the aging of the population and the relative

stability (after rising for decades) in the share of women participating in the labor force.¹⁷

In CBO's projections, total factor productivity grows more slowly than its historical average, increasing by 1.2 percent per year, on average, from 2018 to 2048. That rate, which measures the average real output per unit of combined labor and capital services, is slower than the annual average of 1.5 percent since 1950. Factors influencing that projection include slower productivity growth over the past several decades (except during a period of rapid growth in the late 1990s and early 2000s), modest growth in labor quality (a measure of workers' skills), and a projected reduction in federal investment as a share of GDP. Potential labor productivity—defined as real potential output per potential hour of labor—is likewise projected to grow more slowly than it has in the past, reflecting less

17. For more details about how CBO projects labor force participation rates, see Joshua Montes, *CBO's Projection of Labor Force Participation Rates*, Working Paper 2018-04 (Congressional Budget Office, March 2018), www.cbo.gov/publication/53616.

private investment in capital goods. Since 1950, labor productivity has expanded by 1.7 percent per year, on average; through 2048, that growth rate is projected to average 1.5 percent per year (see Figure 5).

Interest rates, in CBO's projections, rise as the economy continues to expand but remain lower than they have been historically. Slower growth of the labor force and lower inflation push interest rates down from their historical levels, and those factors are projected to outweigh the effects of rising federal debt and other factors that tend to push interest rates up. In CBO's latest economic projections, the interest rate on 10-year Treasury notes rises from 2.4 percent at the end of 2017 to 3.7 percent in 2028. That rate is projected to rise to 4.8 percent in 2048—1 percentage point below the 5.8 percent average recorded over the 1990–2007 period. (That period is used for comparison because it was characterized by fairly stable expectations for inflation and by a lack of significant financial crises or severe economic downturns.)

The average interest rate on all federal debt held by the public tends to be lower than the rate on 10-year Treasury notes. (Interest rates generally are lower on shorter-term debt than on longer-term debt, and the average term to maturity of federal debt has been less than 10 years since the 1950s.) Based on projections of interest rate spreads and the term structure of rates on federal debt, the average interest rate on federal debt is projected to be about 0.4 percentage points lower than the interest rate on 10-year Treasury notes after 2028.¹⁸ As a result, in CBO's projections, the average interest rate on federal debt rises to 4.4 percent by 2048.

CBO's economic projections incorporate the macroeconomic effects of federal tax and spending policies. In particular, the agency projects that increased borrowing by the federal government under current law generally would crowd out some private investment in productive capital in the long term. Less private investment in capital goods would make workers less productive, leading to lower wages and a smaller supply of labor. Furthermore, the extended baseline incorporates the economic effects of higher marginal tax rates. As more income is pushed into higher tax brackets over time, labor and capital

income face higher tax rates. Higher marginal tax rates on labor income would lessen people's incentive to work, and the increase in the marginal tax rate on capital income would reduce their incentive to save. All told, less private domestic investment and a smaller labor supply would result in lower economic output and income than would otherwise be the case.

Projected Spending Through 2048

Spending for all of the government's programs and activities, combined with net interest costs, is projected to account for a larger percentage of GDP in coming years than it has, on average, over the past 50 years. From 1968 to 2017, federal outlays other than those for the government's net interest costs averaged 18 percent of GDP. The percentage was higher over the past decade, when noninterest spending averaged 20 percent of GDP, because of underlying demographic trends and because of temporary conditions in the economy (namely, the financial crisis, the weak recovery, and the federal policies that were created to address those circumstances). Under current law, noninterest outlays are projected to rise from 19 percent in 2018 to 20 percent in 2028 (adjusted to exclude shifts in timing; the share would be 21 percent if timing shifts were included). Over the next decade, mandatory spending (which includes spending on Social Security and the major health care programs, along with many smaller programs) is generally projected to increase as a share of the economy, and discretionary spending is generally projected to decrease.

After 2028, under the assumptions that govern the extended baseline, noninterest spending would continue to rise relative to the size of the economy, reaching 23 percent of GDP by 2048. (For a summary of CBO's assumptions about spending and revenues, see Table 2.) That increase would mostly result from larger outlays for the two biggest mandatory programs: Social Security and Medicare (see Figure 6).

Under current law, net interest costs would rise from 1.6 percent of GDP in 2018 to 3.1 percent in 2028, CBO projects, as debt accumulates and as interest rates increase from their currently low levels. By 2048, net interest costs would equal 6.3 percent of GDP, boosting total federal spending to 29 percent of GDP. Spending has exceeded that amount only once, for a three-year period during World War II. For those years, when

18. Term structure is the relationship between interest rates or bond yields and different terms or maturities.

Table 2.

Assumptions About Spending and Revenues Underlying CBO's Extended Baseline

Assumptions About Spending	
Social Security	As scheduled under current law ^a
Medicare	As scheduled under current law through 2028; thereafter, projected spending depends on the estimated number of beneficiaries and health care costs per beneficiary (for which excess cost growth is projected to move smoothly to a rate of 1.0 between 2029 and 2048) ^a
Medicaid	As scheduled under current law through 2028; thereafter, projected spending depends on the estimated number of beneficiaries and health care costs per beneficiary (for which excess cost growth is projected to move smoothly to a rate of 1.0 between 2029 and 2048)
Children's Health Insurance Program	As projected in CBO's baseline through 2028; constant as a percentage of GDP thereafter
Subsidies for Health Insurance Purchased Through the Marketplaces Established Under the Affordable Care Act	As scheduled under current law through 2028; thereafter, projected spending depends on the estimated number of beneficiaries, an additional indexing factor for subsidies, and excess cost growth for private health insurance premiums (which is projected to move smoothly to an annual rate of 1.0 between 2029 and 2048)
Other Mandatory Spending	As scheduled under current law through 2028; thereafter, refundable tax credits are estimated as part of revenue projections, and the rest of other mandatory spending is assumed to decline as a percentage of GDP at roughly the same annual rate at which it is projected to decline between 2023 and 2028 ^b
Discretionary Spending	As projected in CBO's baseline through 2028; roughly constant as a percentage of GDP thereafter ^c
Assumptions About Revenues	
Individual Income Taxes	As scheduled under current law
Payroll Taxes	As scheduled under current law
Corporate Income Taxes	As scheduled under current law
Excise Taxes	As scheduled under current law ^d
Estate and Gift Taxes	As scheduled under current law
Other Sources of Revenues	As scheduled under current law through 2028; constant as a percentage of GDP thereafter

Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

For CBO's most recent 10-year baseline projections, see Congressional Budget Office, *An Analysis of the President's 2019 Budget* (May 2018), www.cbo.gov/publication/53884.

Excess cost growth refers to the extent to which the growth rate of nominal health care spending per person—adjusted for demographic characteristics of the relevant populations—exceeds the growth rate of potential GDP per person. (Potential GDP is the maximum sustainable output of the economy.)

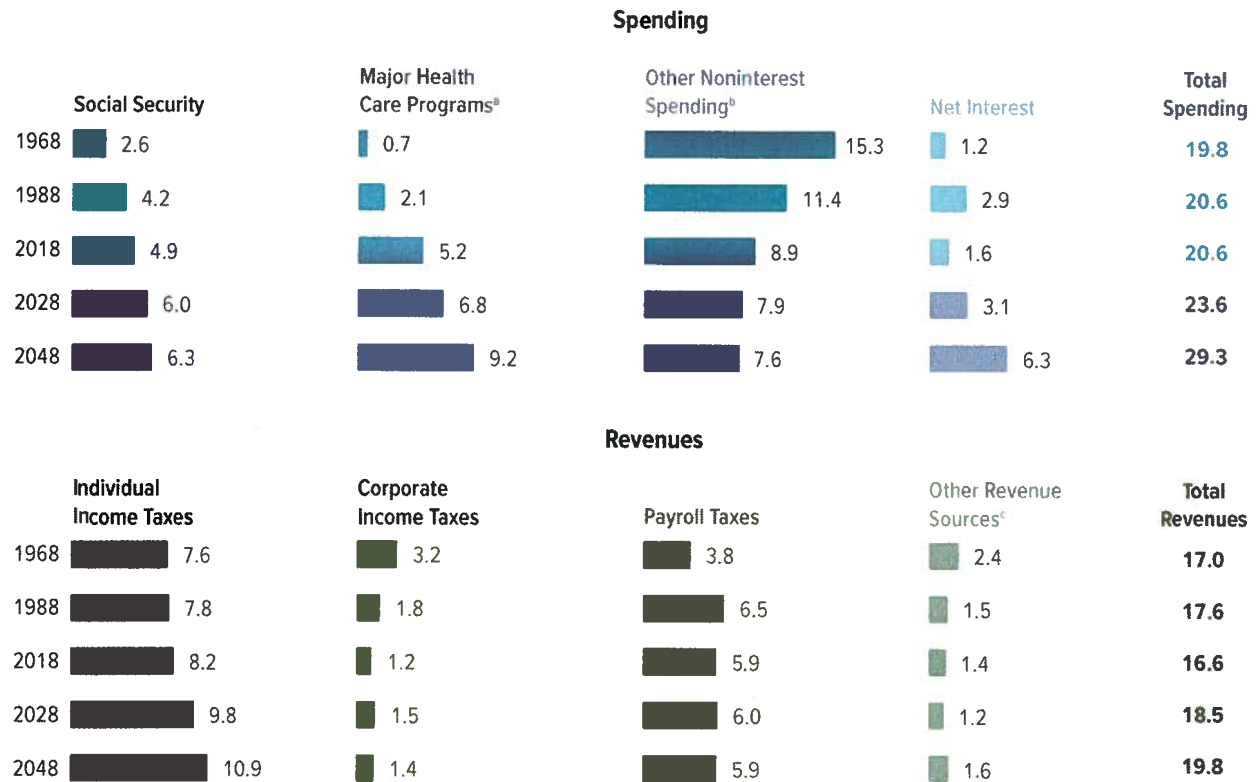
GDP = gross domestic product.

- a. Assumes the payment of full benefits as calculated under current law, regardless of the amounts available in the program's trust funds.
- b. In that projection, GDP includes the macroeconomic effects of the policies underlying the extended baseline. If it did not, the rest of other mandatory spending after 2028 would decline at the same rate at which it is projected to decline between 2023 and 2028 (excluding the decline in spending for the Supplemental Nutrition Assistance Program).
- c. In that projection, GDP includes the macroeconomic effects of the policies underlying the extended baseline. If it did not, discretionary spending after 2028 would remain the same (measured as a percentage of GDP) as the amount projected for 2028.
- d. The exception to the current-law assumption applies to expiring excise taxes dedicated to trust funds. The Balanced Budget and Emergency Deficit Control Act of 1985 requires CBO's baseline to reflect the assumption that those taxes would be extended at their current rates. That law does not stipulate that the baseline include the extension of other expiring tax provisions, even if they have been routinely extended in the past.

Figure 6.

Spending and Revenues in the Past and in CBO's Extended Baseline

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

- a. Consists of spending for Medicare (net of premiums and other offsetting receipts), Medicaid, and the Children's Health Insurance Program, as well as outlays to subsidize health insurance purchased through the marketplaces established under the Affordable Care Act and related spending.
- b. Consists of all federal spending other than that for Social Security, the major health care programs, and net interest.
- c. Consists of excise taxes, remittances to the Treasury from the Federal Reserve System, customs duties, estate and gift taxes, and miscellaneous fees and fines.

defense spending increased sharply, total federal spending topped 40 percent.

CBO projects that the growth in spending for Social Security, the major health care programs, and net interest would continue to reshape the spending patterns of the U.S. government (see Figure 7). Spending for net interest would account for a much greater portion of total federal spending by 2048 than it does today, and spending on Social Security and the major health care programs would account for a much larger share of all federal non-interest spending.

Spending for Social Security and the Major Health Care Programs

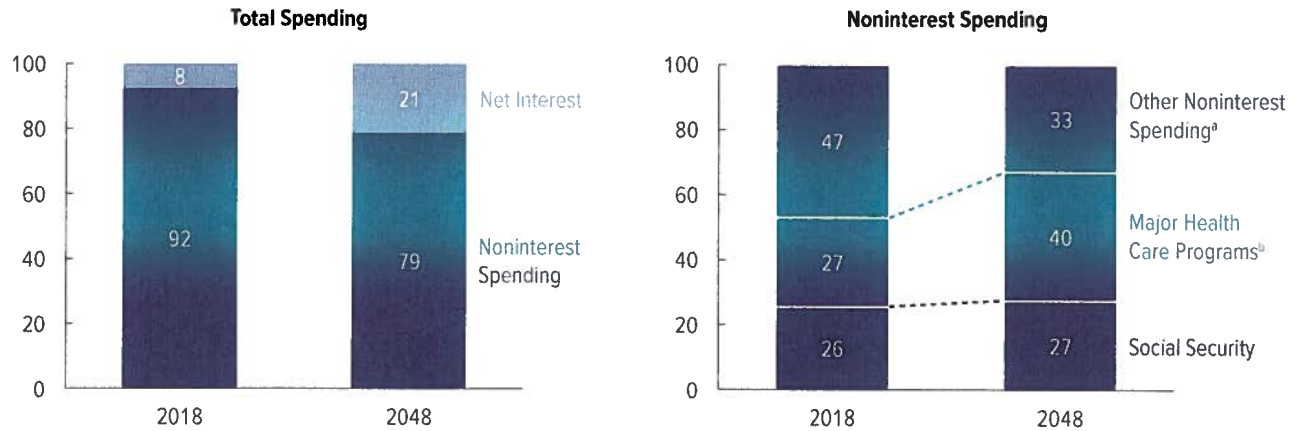
Mandatory programs have accounted for a rising share of the federal government's noninterest spending over the past few decades. Most of the growth has occurred because Social Security and Medicare provide benefits mainly to people age 65 or older, a group that has been growing significantly.

Social Security. Created in 1935, Social Security is the largest single program in the federal budget. Its two components pay benefits to 62 million people in all.

Figure 7.

Composition of Federal Spending in CBO's Extended Baseline

Percent



Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

- a. Consists of all federal spending other than that for Social Security, the major health care programs, and net interest.
- b. Consists of spending for Medicare (net of premiums and other offsetting receipts), Medicaid, and the Children's Health Insurance Program, as well as outlays to subsidize health insurance purchased through the marketplaces established under the Affordable Care Act and related spending.

The larger of the two, Old-Age and Survivors Insurance (OASI), pays benefits to retired workers, to their eligible dependents, and to some survivors of deceased workers. The smaller program, Disability Insurance (DI), makes payments to disabled workers and to their dependents until those workers are old enough to claim full retirement benefits under OASI.

Under current law, CBO projects, spending for Social Security would increase noticeably as a share of the economy, continuing the trend of the past five decades. That spending would increase from 4.9 percent of GDP in 2018 to 6.3 percent in 2048 (see Figure 6 on page 15), and the number of beneficiaries would rise from 62 million to nearly 99 million. In CBO's extended baseline projections, Social Security is assumed to pay benefits as scheduled under current law, regardless of the status of the program's trust funds.¹⁹ That approach

is consistent with a statutory requirement that CBO's 10-year baseline projections incorporate the assumption that funding for such programs is adequate to make all payments required by law.²⁰

The Social Security program is funded by dedicated tax revenues from two sources. Currently, 96 percent comes from a payroll tax; the rest is collected from income taxes on Social Security benefits. Revenues from the payroll tax and the tax on benefits are credited to the Old-Age and Survivors Insurance Trust Fund and the Disability Insurance Trust Fund, which finance the program's benefits.

A common measure of the sustainability of a program that has a trust fund and a dedicated revenue source is its estimated actuarial balance over a given period—that

19. The balances of the trust funds represent the total amount that the government is legally authorized to spend for those purposes. For more details about the legal issues related to exhaustion of a trust fund, see Noah P. Meyerson, *Social Security: What Would Happen If the Trust Funds Ran Out?* Report for Congress RL33514 (Congressional Research Service, August 28, 2014),

available from U.S. House of Representatives, Committee on Ways and Means, *2014 Green Book*, Chapter 1: Social Security, "Social Security Congressional Research Service Reports" (accessed April 19, 2018), <http://go.usa.gov/cXcG>.

20. Sec. 257(b)(1) of the Balanced Budget and Emergency Deficit Control Act of 1985 (Deficit Control Act), Public Law 99-177 (codified at 2 U.S.C. §907(b)(1) (2016)).

is, the sum of the present value of projected tax revenues and the current trust fund balance minus the sum of the present value of projected outlays and a year's worth of benefits at the end of the period.²¹ For Social Security, that difference is traditionally presented as a percentage of the present value of taxable payroll over 75 years.²²

Over the next 75 years, if current laws remained in place, the program's actuarial shortfall would be 1.5 percent of GDP, or 4.4 percent of taxable payroll, CBO projects (see Table 3).²³ According to CBO's projections, therefore, it would be possible to pay the benefits prescribed by current law and maintain the necessary trust fund balances through 2092 if payroll taxes were raised immediately and permanently by about 4.4 percent of taxable payroll, if scheduled benefits were reduced by an equivalent amount, or if some combination of tax increases and spending reductions of equal present value was adopted.²⁴

21. A present value expresses a flow of past and future income or payments as a single amount received or paid at a specific time. The value depends on the rate of interest, known as the discount rate, used to translate past and future cash flows into current dollars at that time. To account for the difference between a trust fund's current balance and the balance desired for the end of the period, the balance at the beginning is added to the projected tax revenues, and an additional year of costs at the end of the period is added to projected outlays.

22. Taxable payroll is the total amount of earnings (wages and self-employment income) for employment covered by Social Security that is below the applicable annual taxable maximum (\$128,400 in 2018).

23. The 75-year projection period used here begins in calendar year 2018 and ends in calendar year 2092. The Social Security trustees have estimated that the program's 75-year actuarial shortfall would be 2.8 percent of taxable payroll, which is about 1.6 percentage points less than CBO's projection. For details on the trustees' projections, see Social Security Administration, *The 2018 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds* (June 2018), www.ssa.gov/oact/tr/2018.

24. A policy that either increased revenues or reduced outlays by the same percentage of taxable payroll each year that would be required to eliminate the 75-year shortfall would not necessarily place Social Security on a permanently stable financial path. Estimates of the actuarial shortfall do not account for revenues or outlays after the 75-year projection period. Because shortfalls are smaller earlier in the 75-year projection period than they are later, such a policy would create surpluses in the next several decades but result in deficits later and leave the system financially unbalanced after calendar year 2092. Additionally, the calculation of the actuarial balance excludes the effects of any macroeconomic feedback that would result from an increase in taxes or a reduction in benefits.

Table 3.

Financial Measures for Social Security

Projection Period (Calendar years)	Income Rate	Cost Rate	Actuarial Balance
			(Difference)
As a Percentage of Gross Domestic Product			
25 Years (2018 to 2042)	5.1	6.2	-1.0
50 Years (2018 to 2067)	4.8	6.2	-1.4
75 Years (2018 to 2092)	4.7	6.2	-1.5
As a Percentage of Taxable Payroll			
25 Years (2018 to 2042)	14.6	17.5	-2.9
50 Years (2018 to 2067)	14.0	18.0	-4.0
75 Years (2018 to 2092)	13.9	18.3	-4.4

Source: Congressional Budget Office.

These projections incorporate the assumption that spending for Social Security continues as scheduled even if its trust funds are exhausted. Through 2048, the projections incorporate macroeconomic feedback caused by rising federal debt and marginal tax rates. After 2048, they do not account for such feedback.

Over each projection period, the income rate is the present value of annual tax revenues plus the initial trust fund balance, and the cost rate is the present value of annual outlays plus the present value of a year's worth of benefits as a reserve at the end of the period, each divided by the present value of gross domestic product or taxable payroll. (The present value of a flow of revenues or outlays over time expresses that flow as a single amount received or paid at a specific time. The present value depends on a rate of interest, known as the discount rate, that is used to translate past and future cash flows into current dollars.) The actuarial balance is the difference between the income and cost rates.

Another commonly used measure of Social Security's sustainability is a trust fund's date of exhaustion. CBO projects that, under current law, the DI trust fund would be exhausted in fiscal year 2025 and the OASI trust fund would be exhausted in calendar year 2032. If their balances were combined, the OASDI trust funds would be exhausted in calendar year 2031, according to CBO's estimate.

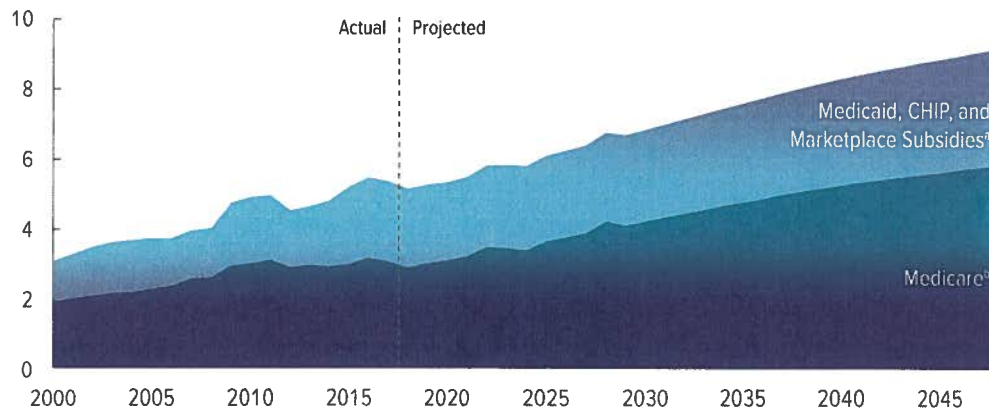
The Major Health Care Programs. Outlays for the major health care programs consist of spending for Medicare, Medicaid, and the Children's Health Insurance Program (CHIP), as well as outlays to subsidize health insurance purchased through the marketplaces established under the Affordable Care Act (ACA) and related spending.²⁵ Medicare, which provides health insurance to about

25. Spending related to subsidies for insurance purchased through the marketplaces includes spending for subsidies for insurance provided through the Basic Health Program and spending for the risk-adjustment and reinsurance programs that were established by the ACA to stabilize premiums for health insurance purchased by individuals and small employers.

Figure 8.

Federal Spending on the Major Health Care Programs, by Category

Percentage of Gross Domestic Product



Medicare spending, net of offsetting receipts, would account for about three-quarters of the increase in spending for the major health care programs over the next 30 years.

Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

CHIP = Children's Health Insurance Program; GDP = gross domestic product.

- a. "Marketplace Subsidies" refers to spending to subsidize health insurance purchased through the marketplaces established under the Affordable Care Act and insurance provided through the Basic Health Program, as well as spending to stabilize premiums for health insurance purchased by individuals and small employers.
- b. Refers to net spending for Medicare, which accounts for offsetting receipts that are credited to the program. Those offsetting receipts are mostly premiums paid by beneficiaries to the government.

59 million people (most of whom are at least 65 years old), accounts for more than half of that spending.

CBO projects federal spending for the government's major health care programs for 2018 through 2028 under the assumption that the laws governing those programs will, in general, remain unchanged. As with Social Security, CBO assumes that Medicare will pay benefits as scheduled under current law, regardless of the amounts in the program's trust funds. For longer-term projections, considerable uncertainty surrounds the evolution of health care delivery and financing systems. That uncertainty leads CBO to employ a formulaic approach for its projections beyond 2028: It combines estimates of the number of expected beneficiaries of the government's health care programs with mechanical estimates of the growth in spending per beneficiary.

Over the past five decades, spending for the major health care programs has steadily grown faster than the economy, and that trend continues in CBO's extended baseline. In 2018, net federal spending for the major health care programs is estimated to equal 5.2 percent of

GDP, CBO projects. If current laws generally remained in place, net outlays for those programs would increase to 9.2 percent in 2048, with Medicare spending, net of offsetting receipts (mostly premiums paid by enrollees), growing by about 3 percent of GDP, and spending on Medicaid and CHIP, combined with outlays for marketplace subsidies and related spending, growing by about 1 percent of GDP (see Figure 8).²⁶

Causes of Growth in Spending for Social Security and the Major Health Care Programs

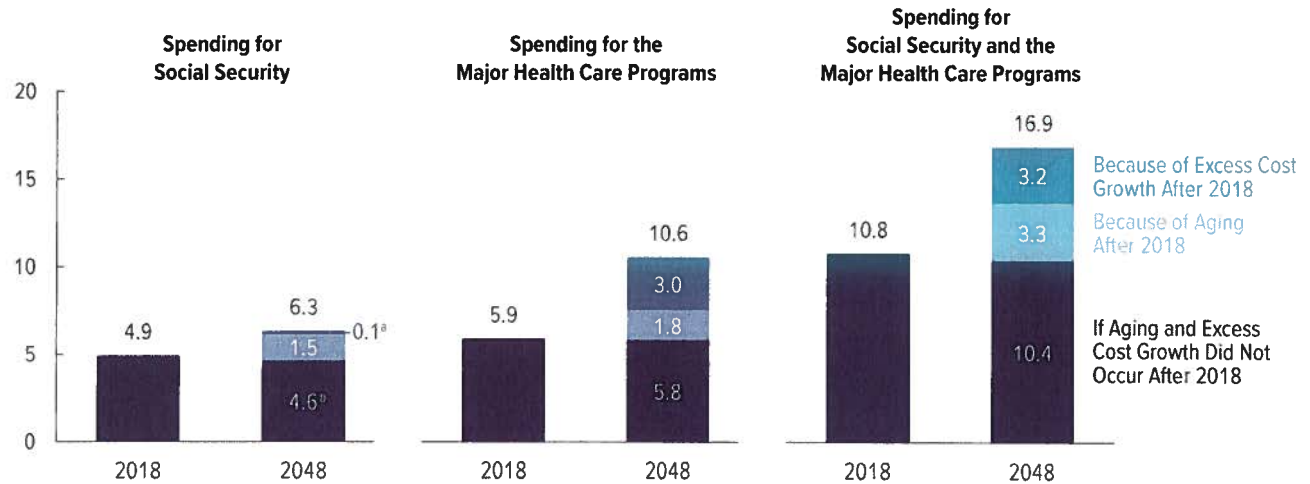
The aging of the population and rising health care costs per person are reasons for the sharp rise in projected spending for Social Security and the major federal health care programs over the next 30 years. The extent to which health care costs per person, adjusted for demographic changes, grow faster than potential GDP per person is known as excess cost growth.

26. In CBO's projections, the outlays for subsidies for insurance purchased through the marketplaces and related spending are presented in combination with outlays for Medicaid and CHIP. Most of those outlays constitute federal subsidies for health insurance for low- and moderate-income households.

Figure 9.

Spending Growth in Social Security and the Major Health Care Programs in CBO's Extended Baseline

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

Outlays for the major health care programs consist of gross spending for Medicare (which does not account for offsetting receipts that are credited to the program), Medicaid, and the Children's Health Insurance Program, as well as outlays to subsidize health insurance purchased through the marketplaces established under the Affordable Care Act and related spending. Those outlays have been adjusted to exclude the effects of shifting payments from one fiscal year into another so that those payments are not made on a weekend.

Excess cost growth refers to the extent to which the growth rate of nominal health care spending per person—adjusted for demographic characteristics of the relevant populations—exceeds the growth rate of potential gross domestic product per person. (Potential gross domestic product is the maximum sustainable output of the economy.)

This figure highlights the most important effects of aging and excess cost growth.

- a. Excess cost growth accounts for a small portion of the increase in spending for Social Security as a share of GDP in 2048 because greater spending on federal health care programs leads to larger deficits, which in turn slow the growth of GDP.
- b. If aging and excess cost growth did not occur after 2018, spending on Social Security as a share of GDP would be lower in 30 years, mainly because of the scheduled increase in the full retirement age for Social Security.

In developing its projections, if CBO had set the shares of the population by age at today's proportions and had set excess cost growth at zero, spending on those programs as a share of GDP in 2048 would be 0.4 percentage points below the 10.8 percent estimated for 2018 (adjusted to exclude shifts in timing).²⁷ In the extended baseline, however, that spending reaches 16.9 percent of GDP by 2048 (see Figure 9).²⁸ Aging accounts for an

increase of 3.3 percentage points, or roughly half of the difference. Excess cost growth, at an increase of 3.2 percentage points, accounts for the other half.

The Aging Population. In CBO's projections, the aging of the baby-boom generation and continued gains in life expectancy increase the share of the population that is age 65 or older from 16 percent to 22 percent between 2018 and 2048.

27. Excluding aging and excess cost growth, spending on those programs as a percentage of GDP would be lower in 30 years, mainly because of the scheduled increase in the full retirement age for Social Security.

28. This analysis of causes of spending growth includes gross spending on Medicare.

Aging accounts for nearly all of the projected long-term increase in Social Security spending as a percentage of

GDP.²⁹ Because of growth in the share of the population that is 65 or older, a larger segment of the population will consist of Social Security beneficiaries, and their benefits will require greater federal spending.

Aging also contributes to the projected increase in the share of GDP taken up by spending for the major health care programs, particularly Medicare, which is the largest such program. Most beneficiaries qualify for Medicare at age 65. As that group becomes larger and older, on average, Medicare spending will increase because the number of beneficiaries will rise and because people tend to require more health care as they age. In CBO's projections for the 2018–2048 period, aging explains about one-third of the increase in spending for the major health care programs as a share of GDP.

Rising Health Care Costs per Person. Even though growth in health care costs per person has slowed recently, over the next 30 years it is projected to still be faster than growth in potential GDP per person. In CBO's extended baseline, excess cost growth accounts for about two-thirds of the increase in spending for the major health care programs as a share of GDP between 2018 and 2048. Such cost growth also leads to greater federal debt, which slows the growth of GDP and slightly raises projected spending as a share of GDP.

Other Noninterest Spending

In the extended baseline, total federal spending for everything other than Social Security, the major health care programs, and net interest declines to a smaller percentage of GDP than has been the case for more than 70 years. During the past 50 years, such spending has averaged 11 percent of GDP, but it has been as high as 15 percent (in 1968) and as low as 8 percent (in the late 1990s and early 2000s). Other noninterest spending in 2018 is estimated to equal 8.9 percent of GDP. Under the assumptions used for this analysis, that spending is projected to fall to 7.9 percent of GDP in 2028 and to 7.6 percent of GDP in 2048.

Discretionary Spending. About half of all discretionary spending is dedicated to national defense, and the rest is for an array of federally funded investments and

activities, including education, transportation, housing assistance, veterans' health care, health-related research and public programs, administration of justice, and international affairs.

Over the past half-century, discretionary spending has diminished markedly as a percentage of GDP: Between 1968 and 2017, it declined from 13.1 percent to 6.3 percent. In CBO's baseline, discretionary outlays remain at about that level through next year before decreasing again, to 5.4 percent of GDP by 2028.

Through 2021, most discretionary funding is limited by caps on annual discretionary appropriations that were originally specified in the Budget Control Act of 2011 (P.L. 112-25, as amended). The Bipartisan Budget Act of 2018 increased limits on discretionary funding that otherwise would have been in place for 2018 and 2019. The subsequent decline in discretionary outlays relative to GDP reflects lower statutory limits on discretionary funding in 2020 and 2021 and the assumption (required by law) that discretionary funding will grow at the rate of inflation—which is slower than projected growth in GDP—beginning in 2022. After 2028, in CBO's extended baseline projections, discretionary spending is assumed to remain roughly constant as a percentage of GDP (see Figure 10).³⁰

Other Mandatory Spending. Since the mid-1960s, mandatory spending other than that for Social Security and the major health care programs has generally remained between 2 percent and 4 percent of GDP. (An exception was the spike to 5.1 percent in 2009 because of higher spending in response to the severe recession.) That category of mandatory spending includes retirement programs for federal civilian and military employees, certain veterans' programs, the Supplemental Nutrition Assistance Program (SNAP), Supplemental Security

29. Excess cost growth accounts for a small portion of the increase in spending for Social Security as a share of GDP in 2048, amounting to about 0.1 percent of GDP, because greater spending on federal health care programs leads to larger deficits, which in turn slow the growth of GDP.

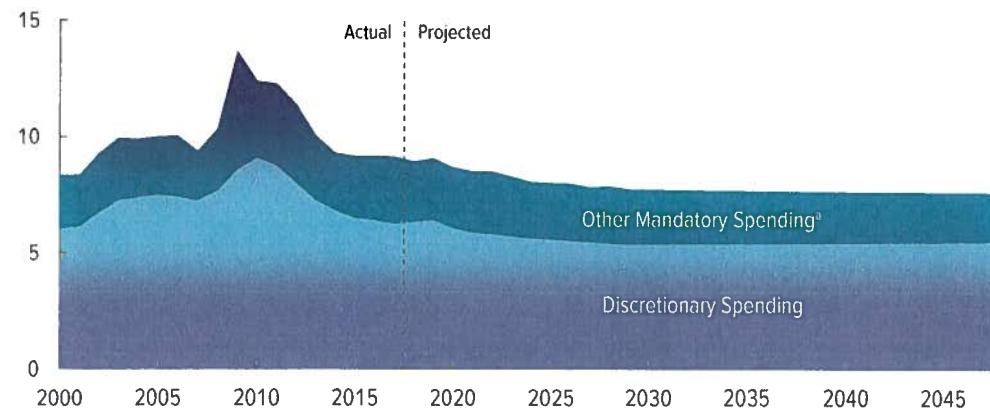
30. CBO assumed that discretionary spending after 2028 would remain constant as a percentage of GDP before the agency accounted for the effect on the economy of the fiscal policies projected under the extended baseline. Because CBO estimates that fiscal policy under the extended baseline would dampen economic growth, its projection of discretionary spending would not grow at precisely the same rate as GDP.

Although discretionary spending would decline relative to GDP from 2018 to 2028 in CBO's projections, historical evidence suggests that such a decline is unlikely to persist: Discretionary spending has historically been a larger share of economic output than it is projected to be in 2028. For that reason, CBO did not assume that the share would decline further.

Figure 10.

Other Federal Noninterest Spending in CBO's Extended Baseline

Percentage of Gross Domestic Product



Measured as a percentage of economic output, other federal noninterest spending in CBO's extended baseline declines between 2018 and 2048, mainly because of a projected decrease in discretionary spending over the next decade.

Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

- a. "Other Mandatory Spending" is all mandatory spending other than that for Social Security and the major health care programs. It includes the refundable portions of the earned income and child tax credits and of the American Opportunity Tax Credit.

Income, unemployment compensation, and refundable tax credits.³¹

Other mandatory spending is projected to decline slightly as a share of the economy over the next 10 years. That category accounts for 2.6 percent of GDP today and, if current laws generally remained unchanged, it would decline to 2.4 percent of GDP in 2028, CBO projects.³² That small decrease primarily reflects the effects of growth in average income on eligibility for some programs and refundable tax credits as well as reductions in the average payment per beneficiary (when measured relative to average income) for certain large programs.

In CBO's extended baseline, other mandatory spending is projected to fall to 2.1 percent of GDP by 2048. In

part, that reduction reflects the effects of further growth in income on eligibility for refundable tax credits. It also reflects the assumption that other mandatory spending, excluding outlays for such tax credits, would decline roughly in line with projections for such spending between 2023 and 2028.³³

Net Interest Costs

Over the past 50 years, the government's net interest costs have averaged 2.0 percent of GDP, although they have been as high as 3.2 percent and as low as 1.2 percent. In CBO's extended baseline, net interest costs are projected to roughly double as a share of the economy over the next decade—from 1.6 percent of GDP in 2018 to 3.1 percent by 2028—as greater federal borrowing boosts debt-service costs and as currently low interest

31. Refundable tax credits reduce a filer's overall income tax liability; if the credit exceeds the rest of the filer's income tax liability, the government pays all or some portion of that excess to the taxpayer (and the payment is treated as an outlay in the budget). See Congressional Budget Office, *Refundable Tax Credits* (January 2013), www.cbo.gov/publication/43767.

32. Sec. 257(b)(2) of the Deficit Control Act, which governs CBO's baseline projections, makes exceptions regarding current law for some programs, such as SNAP, that have expiring authorizations but that are assumed to continue as currently authorized.

33. For the years after 2028, mandatory spending excluding that for Social Security, the major health care programs, and refundable tax credits was not projected in detail because of the number of programs involved and the variety of factors that influence spending on them. Instead, CBO used an approximate method to project spending for those programs as a group. Except for the outlays for refundable tax credits, such spending is assumed to decline relative to GDP (excluding any effects that fiscal policy may have on the economy) after 2028 at the same rate at which it is projected to fall between 2023 and 2028 (excluding the decrease in spending for SNAP).

rates rise. In the extended baseline, those costs reach 6.3 percent of GDP by 2048, a higher amount than has ever been experienced (see Figure 6 on page 15). Those costs would exceed mandatory spending other than that for Social Security and the major health care programs in the next few years, exceed all discretionary spending by 2045, and be about equal to spending for Social Security by 2048.

In CBO's projections, deficits and debt rise because of the growing gap between spending and revenues, and higher interest costs are a major contributor to that growing gap. Between 2018 and 2048, more than half of the increase in spending as a percentage of GDP results from higher net interest costs. In large part, those rising interest costs stem from increases in interest rates that reflect long-term economic trends, which CBO projects would occur even if debt did not rise beyond its current level. But greater federal borrowing places additional upward pressure on interest rates and thus on interest costs. Moreover, growth in net interest costs and growth in debt reinforce one another: Rising interest costs would boost deficits and debt, and rising debt would push up interest costs.

Projected Revenues Through 2048

In CBO's extended baseline, revenues are generally projected to constitute a larger share of GDP than they have, on average, in recent decades. Over the past 50 years, revenues as a share of GDP have averaged about 17 percent, but the number has fluctuated between 15 percent and 20 percent of GDP because of changes in tax laws and interactions between those laws and economic conditions.

If current laws generally remained unchanged, revenues would increase as a share of GDP over the coming decade, CBO projects. Revenues would remain near 16.6 percent of GDP through 2021, rise steadily to 17.5 percent by 2025, and then increase sharply in 2026—to 18.1 percent of GDP—following the scheduled expiration of many temporary provisions of the 2017 tax act. By 2028, revenues are projected to total 18.5 percent of GDP.

For years beyond 2028, revenues are projected following the assumption that the rules for all tax sources will evolve as scheduled under current law.³⁴ Thus, under

34. The sole exception to the current-law assumption during the baseline period applies to expiring excise taxes dedicated to trust

CBO's extended baseline, revenues would continue to grow faster than GDP beyond 2028 and, two decades later, would total 19.8 percent of GDP. Increases in receipts from individual income taxes account for most of the projected rise of 3.2 percentage points in total revenues as a share of GDP over the next three decades. All told, receipts from all other sources combined are projected to increase slightly as a share of GDP (see Figure 6 on page 15).

The projected increase in total revenues through 2048 reflects structural features of the income tax system, new and expiring tax provisions, demographic trends, changes in the distribution of income, and other factors.

Structural features of the income tax system are the largest contributor to the increase in total revenues (see Table 4). If current laws remained generally unchanged, real bracket creep would continue to gradually push up taxes relative to income over the next three decades, CBO projects. That occurs because most income tax brackets, exemptions, and other tax thresholds are indexed only to inflation. When income grows faster than inflation, as generally happens during economic expansions, tax receipts grow faster than income.³⁵

Under current law, some provisions of tax law will expire and others will take effect during the next decade. In total, those changes lead to higher tax revenues in the extended baseline. The most significant change is the expiration, after calendar year 2025, of nearly all provisions in the 2017 tax act that affect individual income taxes. The expiration of those provisions boosts individual income tax receipts relative to GDP by 0.7 percentage points, CBO projects. In addition, a new tax on certain employment-based health insurance plans with high premiums is scheduled to take effect in 2022. Although the revenues raised by that tax would be small initially, rapid growth in health care costs would cause revenues from that tax to rise rapidly over subsequent decades. Also, some rules that allow businesses to accelerate

_____ funds. The Deficit Control Act requires CBO's baseline to reflect the assumption that those taxes would be extended at their current rates. That law does not stipulate that the baseline include the extension of other expiring tax provisions, even if lawmakers have routinely extended them before.

35. The 2017 tax act changed the measure of inflation used to index many parameters of the tax system to an alternative measure that grows more slowly. Consequently, the effect of real bracket creep is slightly greater than CBO projected in prior years.

Table 4.

Reasons for Growth in Total Revenues in CBO's Extended Baseline, 2018 to 2048

Percentage of Gross Domestic Product

Reason for Growth	2018–2028	2029–2048	Total, 2018–2048
Structural Features of the Individual Income Tax ^a	0.5	0.9	1.4
New and Expiring Tax Provisions	0.8	0.4	1.2
Aging and the Taxation of Retirement Income	0.2	0.1	0.3
Changes in the Distribution of Income (Effect on individual income taxes)	0.1	0.1	0.2
Changes in the Distribution of Income (Effect on payroll taxes)	-0.1	-0.1	-0.2
Other Factors	0.4	-0.1	0.3
Total Growth in Revenues Between 2018 and 2048	1.9	1.3	3.2

Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

a. Includes real bracket creep, which occurs as more income is pushed into higher tax brackets because people's income rises faster than inflation.

deductions for investment expenses are scheduled to be phased out by the end of December 2027, increasing revenues as a result.

As the population ages, distributions from tax-deferred retirement accounts (including individual retirement accounts, 401(k) plans, and traditional defined benefit pension plans) will tend to grow more rapidly than GDP. Those rising taxable distributions would also boost revenues relative to GDP, mainly between 2018 and 2028, CBO projects.

Earnings are projected to grow faster for higher-income people than for other people over the next 30 years. That trend would cause a larger share of income to be taxed at higher rates under the individual income tax, pushing up revenues relative to GDP by nearly 0.2 percentage points. That increase would be largely offset by a projected decrease of nearly the same amount in payroll tax receipts, as a greater share of earnings would be above the maximum amount subject to Social Security payroll taxes.

As a result of those factors, the effects of the tax system in 2048 would differ substantially from the effects today, both because of the changes in tax rules scheduled under current law and because of structural features in the tax code that gradually push up taxes relative to income. Average taxpayers at every income level would pay more of their income in taxes in 2048 than similar taxpayers do now, primarily because of real bracket creep. Effective marginal federal tax rates also would rise if current laws

generally stayed in place, so a larger share of each additional dollar of income that households earned would go to pay taxes (see Table 5). The increase in the marginal tax rate on labor income would reduce people's incentive to work, and the increase in the marginal tax rate on capital income would reduce their incentive to save, thus dampening economic activity, in CBO's estimation.³⁶ (For a discussion of the long-term economic effects of the 2017 tax act, see Box 1 on page 26.)

Uncertainty of CBO's Long-Term Projections

Even if future tax and spending policies did not vary from those specified in current law, budgetary outcomes would undoubtedly differ from those in CBO's baseline projections because of unexpected changes in the economy, demographics, and other factors. To illustrate the uncertainty of its projections, CBO examined the extent to which federal debt as a percentage of GDP would differ from the amounts in its extended baseline if the agency varied four key factors in its analysis:³⁷

- The labor force participation rate,³⁸

36. Even though the marginal tax rate on capital income is projected to rise under current law, it would still be lower than in recent years.

37. For additional details about this analytical approach, see Congressional Budget Office, *The 2016 Long-Term Budget Outlook* (July 2016), Chapter 7, www.cbo.gov/publication/51580.

38. The labor force participation rate is the percentage of people in the civilian noninstitutionalized population who are age 16 or older and either working or actively seeking work.

Table 5.

Effective Marginal Federal Tax Rates in CBO's Extended Baseline

Percent	2018	2028	2048
Marginal Tax Rate on Labor Income	27.2	30.8	32.4
Marginal Tax Rate on Capital Income	14.7	16.5	17.0

Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

The effective marginal tax rate on labor income is the share of an additional dollar of such income that is paid in federal individual income taxes and payroll taxes, averaged among taxpayers, with weights proportional to their labor income. The effective marginal tax rate on capital income is the share of the return on an additional dollar of investment made in a particular year that will be paid in taxes over the life of that investment. The before- and after-tax rates of return used to calculate that effective tax rate are weighted averages of the rates for every combination of asset type, industry, form of organization, and source of financing; the weights used are the asset values of each combination.

- The growth rate of total factor productivity,
- Interest rates on federal debt held by the public, and
- Excess cost growth for Medicare and Medicaid spending.

The degree of variation was based on historical movements and on possible future developments. The resulting estimates show that if CBO varied one factor at a time, federal debt held by the public after 30 years would range from 42 percentage points of GDP below the agency's central estimate—152 percent of GDP—to 60 percentage points above it.³⁹

If all four factors were varied simultaneously such that projected deficits increased, federal debt held by the public in 2048 would be about 96 percent of GDP above CBO's central estimate.⁴⁰ Conversely, if all four

39. CBO's estimates of federal debt with each factor varied individually are presented in the supplemental data accompanying this report at www.cbo.gov/publication/53919.

40. When CBO varied all factors simultaneously, it varied each factor by only 60 percent of the amount of variation in each factor individually. The agency used only part of the full range for each

factors were varied such that projected deficits decreased, debt after 30 years would be 67 percentage points below the central estimate (see Figure 11).

Those calculations do not cover the full range of possible outcomes, and they do not address other sources of uncertainty in the budget projections, such as the risk of an economic depression or a major war or catastrophe, or the possibility of unexpected changes in rates of birth, immigration, or mortality. Nonetheless, they show that the main implications of this report apply under a wide range of possible values for some key factors that influence federal spending and revenues. In 30 years, if current laws remained generally unchanged, federal debt—which is already high by historical standards—would probably be at least as high as it is today and would most likely be much higher.

Policymakers could take that uncertainty into account in various ways as they make choices for fiscal policy.⁴¹ For example, they might design policies that reduced the budgetary implications of certain unexpected events. Or they might decide to provide a buffer against events with negative budgetary implications by aiming for lower debt than they would in the absence of such uncertainty.

The Size and Timing of Policy Changes Needed to Meet Various Goals for Deficit Reduction

CBO estimated the size of changes in spending or revenues that would be needed if lawmakers wanted to achieve some specific targets for federal debt held by the public. CBO also assessed the extent to which the size of policy adjustments would change if such deficit reduction was delayed, and it examined the effects of waiting to resolve the long-term fiscal imbalance on different generations of the U.S. population.

The Size of Policy Changes Needed to Meet Various Goals for Deficit Reduction

If lawmakers set out to ensure that debt in 2048 matched its current level of 78 percent of GDP, they could achieve

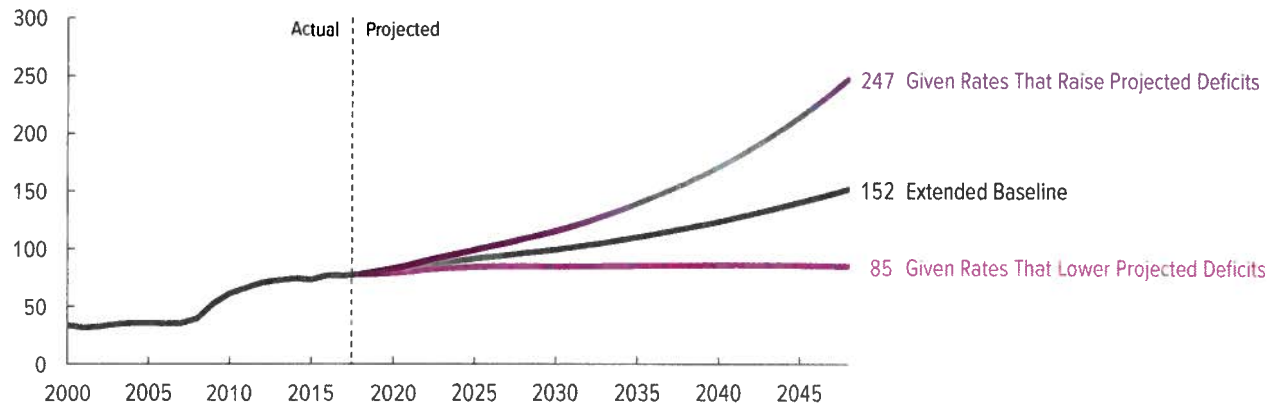
of the four factors because the chances of federal debt being above or below the estimates when all four factors are at the high or low ends of their ranges are much smaller than when each individual factor is at the high or low end of its range.

41. See Alan J. Auerbach and Kevin Hassett, "Uncertainty and the Design of Long-Run Fiscal Policy," in Auerbach and Ronald D. Lee, eds., *Demographic Change and Fiscal Policy* (Cambridge University Press, 2001), pp. 73–92, <http://tinyurl.com/p93enf>.

Figure 11.

Federal Debt Given Different Rates of Labor Force Participation, Productivity Growth, Federal Borrowing, and Excess Cost Growth for Federal Spending on Medicare and Medicaid

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

Federal debt refers to debt held by the public. Values are CBO's central estimates from ranges determined by alternative assessments of two factors: how much deficits crowd out investment in capital goods, such as factories and computers (because a larger portion of private saving is being used to purchase government securities), and how much people respond to changes in after-tax wages by adjusting the number of hours they work.

The labor force participation rate is the percentage of people in the civilian noninstitutionalized population who are age 16 or older and either working or actively seeking work.

Productivity growth is the growth of total factor productivity—that is, the growth of real (inflation-adjusted) output that is not explained by the growth of labor and capital.

The federal borrowing rate is the interest rate on the federal debt.

Excess cost growth refers to the extent to which the growth rate of nominal health care spending per person—adjusted for demographic characteristics of the relevant populations—exceeds the growth rate of potential gross domestic product per person. (Potential gross domestic product is the maximum sustainable output of the economy.)

For this figure, CBO used values for four factors with a deviation from the extended baseline that was about 60 percent as large as the deviation the agency used when it varied each factor separately. The alternative projections for the four factors begin in 2019.

that result by cutting noninterest spending or raising revenues (or both) in each year beginning in 2019 by amounts totaling 1.9 percent of GDP (see Figure 12 on page 28). (In 2019, 1.9 percent of GDP would be about \$400 billion, or \$1,200 per person.) If the changes came entirely from revenues or entirely from spending, they would amount, roughly, to an 11 percent increase in revenues or a 10 percent cut in noninterest spending (in comparison with amounts in the extended baseline).

Increases in revenues or cuts in noninterest spending would need to be larger than 1.9 percent of GDP to reduce debt to the percentages of GDP that are more typical of those in recent decades. If lawmakers wanted

to lower the debt to 41 percent of GDP (its average over the past 50 years) by 2048, they could achieve that outcome by increasing revenues or cutting noninterest spending (relative to amounts under current law) or by adopting some combination of those two actions beginning in 2019 by amounts totaling 3.0 percent of GDP each year. (In 2019, 3.0 percent of GDP would be about \$630 billion, or \$1,900 per person.)

If lawmakers wanted to lower debt to its average over the past 50 years by increasing all revenues or by cutting all noninterest spending, the following changes would be necessary:

Box 1.

Effects of the 2017 Tax Act on the Long-Term Budget Outlook

The Congressional Budget Office’s extended baseline generally reflects current law, including the economic and budgetary effects of changes to legislation enacted over the past year—notably, the 2017 tax act (Public Law 115-97, originally called the Tax Cuts and Jobs Act). Those long-term projections are consistent with CBO’s prior estimates of the 2017 tax act’s effects on the U.S. economy—including higher investment, employment, and output—over the 2018–2028 period.¹

Because various provisions of the 2017 tax act expire by the end of 2026, the economic and budgetary effects of the act as a whole are expected to peak during the early to middle part of the next decade. Beyond 2028, the effects of the major permanent provisions are expected to be modest, although their precise magnitudes are highly uncertain. CBO has not performed a detailed, quantitative analysis of the long-run effects of the 2017 tax act but is able to describe the qualitative effects of its most significant provisions.

Major Provisions of the 2017 Tax Act

The 2017 tax act has temporary and permanent provisions. For the next eight years, the major individual income tax changes are lower rates, a larger standard deduction, limits on the deductibility of mortgage interest and state and local taxes, elimination of personal exemptions, expansion of the child tax credit, changes to the treatment of “pass-through” business income, changes to the individual alternative minimum tax, and increases in the tax exemptions for property transferred at death and for certain gifts. For the next five years, the act allows businesses to immediately deduct the full cost of their investments for eligible equipment and software; that bonus-depreciation provision then phases out over the subsequent five years.

Following the expiration of most of the individual provisions at the end of 2025 and the phaseout of bonus depreciation by the end of 2026, the major permanent provisions of the act that continue are these:

- Lower corporate income taxes (a single rate of 21 percent);
- Higher thresholds for deducting the cost of a tangible asset in the year it is placed in service under section 179 of the tax code;
- Amortization of spending for research and experimentation;
- Limitations on net interest deductions and the use of net operating losses;

- Changes in the inflation adjustments for most tax parameters, including for income tax brackets;
- Elimination of the penalty for not having health insurance; and
- Changes in the taxation of foreign income and measures to reduce profit shifting.

Budgetary Effects Without Macroeconomic Feedback

The 2017 tax act has significant direct effects on CBO’s budget projections. Those direct effects do not take into account any changes to the aggregate economy.

Budgetary Effects for 2018 to 2028. Before incorporating macroeconomic feedback, CBO estimated that the tax act would increase the primary deficit (that is, the deficit excluding the costs of servicing the debt) by a cumulative \$1.843 trillion from 2018 to 2028 as a result of higher deficits through 2026. Once the temporary provisions have expired and scheduled changes to certain business provisions have taken effect, the permanent provisions are projected to reduce, on net, the primary deficit in 2027 and 2028. Because of the increased deficits, debt-service costs are higher in every year by growing amounts, totaling \$471 billion over the period. The total direct effect on the deficit through 2028 would be \$2.314 trillion.

Budgetary Effects for 2029 to 2048. After 2028, CBO estimates, the permanent provisions of the act would continue to reduce the primary deficit, on net, over the next 20 years. In particular, the change in the inflation indexing of tax parameters and elimination of the penalty for not having health insurance (which causes fewer people to enroll in health insurance programs subsidized by the federal government) would reduce the deficit by more than the revenues lost through lower corporate taxes.

Economic Effects of the 2017 Tax Act

The largest effects on investment, employment, and output are estimated to occur in the early to middle part of the 2018–2028 period, when both individual and corporate income tax rates are lower and when other temporary provisions and investment incentives (notably, full bonus depreciation) are in place. Most of the tax act’s positive effects on the growth of real (inflation-adjusted) gross domestic product (GDP) would occur in the first few years of CBO’s projection period. The positive effects on the economy would diminish over the following several years and are expected to be modest after 2028.

Economic Effects for 2018 to 2028. The 2017 tax act would boost the level of real GDP by 0.7 percent, on average, through 2028, with a peak effect of 1.0 percent in 2022. By lowering the corporate income tax rate, the act would give businesses

1. See Congressional Budget Office, *The Budget and Economic Outlook: 2018 to 2028* (April 2018), Appendix B, www.cbo.gov/publication/53651.

Box 1.

Continued

Effects of the 2017 Tax Act on the Long-Term Budget Outlook

incentives to boost investment, and by decreasing individual income tax rates through 2025, it would give people incentives to increase their participation in the labor force and work more hours, expanding the labor supply and employment. Although some provisions of the tax act would deter residential investment, the overall effect on investment is estimated to be positive. However, private investment gains would be partially crowded out by higher federal deficits. Altogether, the largest positive effects on the economy would occur from 2022 to 2024 (before the individual income tax provisions expire at the close of 2025).

The effect of the tax act on real GDP is more modest over the following few years, and by 2028, real GDP would be 0.5 percent higher than it would have been otherwise. Between 2026 and 2028, investment would be boosted by the permanent reduction in the corporate income tax rate. However, the permanent change to amortization of research and experimentation expenses (instead of immediate expensing) would reduce the incentive for that type of investment.

The effects on the supply of labor are projected to be mixed. Marginal personal income tax rates would be higher after 2025 than under prior law because of the change in how various parameters of the tax system, including income tax brackets, are adjusted for inflation. That change would tend to reduce the supply of labor, as more income is pushed into higher tax brackets for a given amount of income growth because the new measure of inflation is expected to rise more slowly than the measure it replaced. In contrast, the permanent elimination of the penalty for not having health insurance would tend to increase the supply of labor, in part because under prior law the penalty rose as household income grew, causing it to act as a tax on income.

From 2026 to 2028, the pattern of the economic effects of the act reflects the transition from all the major provisions of the tax act being in place to only the permanent provisions remaining in effect. As a result, the positive effects on labor, investment, and real GDP would diminish. Nonetheless, those positive effects would be boosted by the reduction in the budget deficit by 2027 that results from the tax act, which makes additional resources available for private investment.

Furthermore, the tax act's international provisions are expected to change the reported location of profits in a way that boosts GDP through 2028, without changing the location of labor or capital. As a result, the provisions are expected to raise total factor productivity slightly over time.

Economic Effects for 2029 to 2048. In CBO's assessment, the various permanent provisions of the act would continue to boost the level of real GDP, on net, for a few years after 2028; over the longer term, the economic effects of the different provisions are expected to be modest, but the net effect is uncertain. The accelerated bracket creep resulting from the change in the indexing of tax parameters for inflation and the permanent change to amortization of research and experimentation expenses would tend to lower output by modestly reducing the supply of labor and capital, respectively. Elimination of the penalty for not having health insurance is expected to partially offset the negative effect on labor, and the permanent reduction in the corporate income tax rate and lower federal deficits would tend to increase output modestly by boosting investment.

The tax act's international provisions are expected to increase GDP slightly over the long term, although their overall economic effects are uncertain. Those effects would depend on how companies adjusted their international business structures and transactions and how foreign governments changed their tax rules in response.

Overall, the net impact on output would depend on the balance of all those effects. Individually and collectively, the effects become increasingly uncertain over the last 20 years of the projection period.

Budgetary Effects With Macroeconomic Feedback

CBO estimates that macroeconomic feedback from the tax act—that is, the ways in which the act would affect the budget by changing the overall economy—would subtract a total of \$571 billion from primary deficits over the 2018–2028 period. That reduction would mainly result from the act's boost to taxable income, which would increase revenues. With that macroeconomic feedback incorporated, CBO projects that the act would increase primary deficits by \$1.272 trillion through 2028. Incorporating the act's effects on debt-service costs from changes in federal borrowing and changes in interest rates would push the deficit to an estimated \$1.854 trillion over the 2018–2028 period.

The net effects of the tax act on real GDP and other economic variables are expected to be modest after 2028 but the magnitudes are uncertain (in part because a number of factors tend to offset each other). As a result, the macroeconomic feedback to federal spending and revenues is also expected to be small but uncertain in those years. Despite that uncertainty, the overall effects of the permanent provisions of the act, including their macroeconomic feedback, are projected to reduce the primary deficit somewhat from 2029 to 2048.

Figure 12.

The Size of Policy Changes Needed to Make Federal Debt Meet Two Possible Goals in 2048

If lawmakers aimed for debt in 2048 to equal...

41% of GDP
 (Its 50-year average)

78% of GDP
 (Its Current Level)

Each year, they would need to reduce deficits as a share of GDP by...

3.0% of GDP,
 which is equal to a

17% ▲ increase in revenues
 or a
 15% ▼ cut in spending

1.9% of GDP,
 which is equal to a

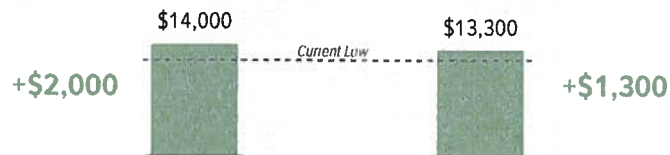
11% ▲ increase in revenues
 or a
 10% ▼ cut in spending

In 2019, that would amount to...

\$630 billion

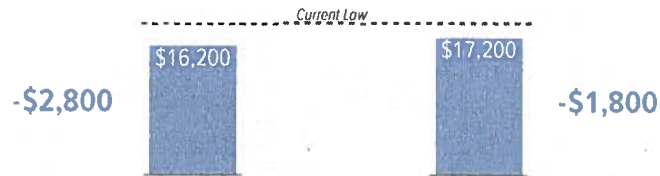
\$400 billion

If the changes were increases (of equal percentage) in all types of revenues, one effect in 2019 is that taxes per household would be higher than they would be under current law by...



Values are for households in the middle fifth of the income distribution. Under current law, their taxes are projected to average \$12,000.

If the changes were cuts (of equal percentage) in all types of noninterest spending, one effect in 2019 is that initial Social Security benefits would be lower than they would be under current law by...



Values are averages for people in the middle fifth of the lifetime earnings distribution who were born in the 1950s and who would claim benefits at age 65. Under current law, their benefits are projected to be \$19,000.

Source: Congressional Budget Office.

In this figure, the indicated sizes of the policy changes are relative to CBO's extended baseline, which generally reflects current law, following CBO's 10-year baseline budget projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period. The projected effects of the policy changes on debt include the direct effects of the policy changes and the feedback to the federal budget that would be attributable to faster economic growth. The effects on growth and the feedback to the federal budget reflect the positive economic effects of lowering the debt but do not reflect any assumptions about the specific details of the policy changes.

GDP = gross domestic product; n.a. = not applicable.

- If collections of the various types of revenues were increased proportionally, total revenues would need to rise by about 17 percent each year over the 2019–2048 period. On average, that adjustment would result in federal taxes that were about \$2,000 higher than they are under current law for households in the middle fifth of the income distribution in 2019.
- If all types of noninterest spending were cut by an equal percentage, spending overall would need to decrease by about 15 percent in each of the next 30 years. For example, such cuts would lower initial annual Social Security benefits by about \$2,800, on average, for people in the middle fifth of the lifetime earnings distribution who were born in the 1950s and who first claimed benefits at age 65.

In all of those examples, the projected effects on debt include both the direct effects of the policy changes and the feedback to the federal budget that would result from faster economic growth. Those economic effects reflect the reduction in debt but do not reflect any assumptions about the specific details of the policy changes. For example, such changes could alter productivity growth and people's incentives to work and save, which would then affect overall economic output and have macroeconomic feedback effects on the federal budget.

The Timing of Policy Changes Needed to Meet Various Goals for Deficit Reduction

The size of the policy changes that would be needed to achieve a particular goal for federal debt would depend, in part, on how quickly that goal was expected to be reached. Regardless of the chosen goal for federal debt, lawmakers would face trade-offs in deciding how quickly to implement policies designed to put federal debt on a sustainable path. The benefits of reducing the deficit sooner would include a smaller accumulated debt, smaller policy changes required to achieve long-term outcomes, and less uncertainty about the policies lawmakers would adopt. However, if lawmakers implemented spending cuts or tax increases too quickly, people might have insufficient time to plan for or adjust to the new system.

Over the next few years, such policy changes would dampen overall demand for goods and services, thus decreasing output and employment relative to CBO's

projections under current law. However, that dampening effect would be temporary, CBO expects, because of the response of prices and interest rates to the reductions in demand and to the resulting actions by the Federal Reserve. Those responses to changing demand would be stronger over the next few years than they would be if the economy was weaker.

By contrast, if policymakers waited several years to reduce federal spending or increase taxes, more debt would accumulate over the long term, which would slow long-term growth in output and income. Thus, reaching any chosen target for debt would require larger changes. Nonetheless, if policymakers waited several years to enact deficit-reduction policies, the economy probably would be affected less over the short term than would be the case if immediate changes were made.

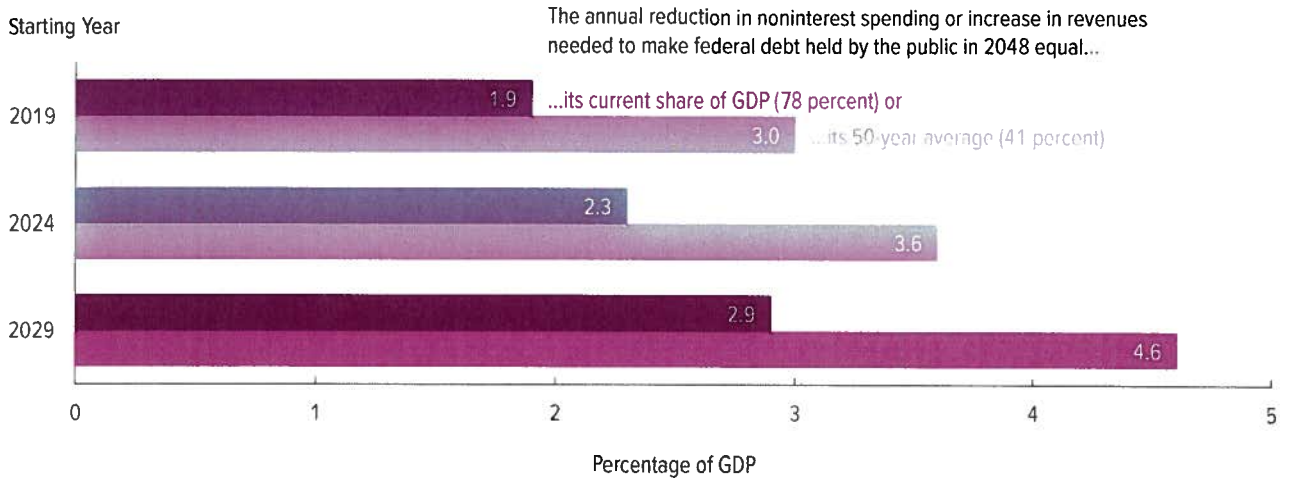
Faster or slower implementation of policies to reduce budget deficits would tend to impose different burdens on different generations. Reducing deficits sooner would probably require older workers and retirees to sacrifice more but would benefit younger workers and future generations. Reducing deficits later would require smaller sacrifices from older people but greater ones from younger workers and future generations.

CBO has analyzed those trade-offs in two ways. First, it estimated the extent to which the size of policy adjustments would change if deficit reduction was delayed. For example, if lawmakers sought to reduce debt as a share of GDP to its historical 50-year average of 41 percent in 2048 and if the necessary policy changes did not take effect until 2024, the annual deficit reduction would need to amount to 3.6 percent of GDP rather than the 3.0 percent that would accomplish the same goal if the changes were made in 2019 (see Figure 13). If lawmakers chose to wait another five years to implement the policies (having them take effect in 2029 instead), even larger changes would be necessary; the required annual deficit reduction in that case would amount to 4.6 percent of GDP.

Second, CBO studied the effects on various generations from waiting to resolve the long-term fiscal imbalance. In 2010, CBO compared economic outcomes under two policies. One would stabilize the debt-to-GDP ratio starting in a particular year; the other would wait

Figure 13.

How Timing Affects the Size of Policy Changes Needed to Make Federal Debt Meet Two Possible Goals in 2048



Source: Congressional Budget Office.

GDP = gross domestic product.

10 years to do so.⁴² That analysis suggested that people in generations born after the earlier implementation date would be worse off under the second option. However, people born more than 25 years before the earlier implementation date would be better off if action was delayed—largely because they would partly or entirely avoid the policy changes needed to stabilize the debt. Generations born between those two groups could either gain or lose from delayed action, depending on the details of the policy changes.⁴³

Even if lawmakers waited several years to implement policy changes to reduce deficits in the long term,

making decisions about them sooner would offer two main advantages. First, people would have more time to prepare. Second, policy changes that reduced the debt would hold down longer-term interest rates and could lessen uncertainty—thus enhancing businesses’ and consumers’ confidence. Those factors would boost output and employment in the near term.

Changes From Last Year’s Long-Term Budget Outlook

Compared with last year’s projections of federal debt, those presented in this report are higher through 2041 and slightly lower thereafter. Most of the increases in debt through 2041 stem from larger projected deficits through 2025 that arise from tax and spending legislation enacted since last March: the 2017 tax act, the Bipartisan Budget Act of 2018, and the Consolidated Appropriations Act, 2018. After 2025, deficits are smaller as a share of GDP than CBO projected last year because of lower projected noninterest spending and similar or higher projected revenues. Those lower deficits ultimately result in lower projected debt as a share of GDP. (Appendix A describes the differences in demographic and economic projections between last year’s report and this year’s, and Appendix B describes key revisions to the budgetary projections since last year that are summarized in this section.)

42. See Congressional Budget Office, *Economic Impacts of Waiting to Resolve the Long-Term Budget Imbalance* (December 2010), www.cbo.gov/publication/21959. That analysis was based on a projection of slower growth in debt than CBO now projects, so the estimated effects of a similar policy today would be close, but not identical, to the effects estimated in that analysis. For a different approach to analyzing the costs of debt reduction for different generations, see Felix Reichling and Shinichi Nishiyama, *The Costs to Different Generations of Policies That Close the Fiscal Gap*, Working Paper 2015-10 (Congressional Budget Office, December 2015), www.cbo.gov/publication/51097.

43. Those conclusions do not incorporate the possible negative effects of a fiscal crisis or effects that might arise from the government’s reduced flexibility to respond to unexpected challenges.

As a percentage of GDP, noninterest spending is generally lower than the amount projected last year. That slowdown is driven by lower projected spending as a share of GDP for Social Security, the major health care programs, and other mandatory spending. Those declines are partially offset by increases in discretionary spending. Revenues are lower as a share of GDP through 2026, largely unchanged for most of the next two decades, and slightly higher by 2048. Those changes reflect provisions of the 2017 tax act.

Under the extended baseline, CBO projects that debt would reach 148 percent of GDP in 2047, which is lower than the amount the agency projected last year. Projected deficits as a share of GDP in this year's report are larger from 2018 through 2025 and smaller thereafter than those in last year's report. The budgetary changes needed to make federal debt 30 years from now

equal either today's level or the 50-year historical average (as a share of GDP) are similar to the changes CBO projected would be required in last year's report.

The 75-year actuarial deficit currently projected for Social Security is 1.5 percent of GDP (the same amount that CBO estimated last year) or 4.4 percent of taxable payroll (slightly smaller than last year's estimate of 4.5 percent). The projected actuarial deficit declined since last year because CBO boosted its projection of the share of earnings that are subject to Social Security payroll taxes over the next 30 years and because CBO projects slightly smaller benefits relative to GDP and taxable payroll and, over the next two decades, higher interest rates. Offsetting those changes is an adjustment to the 75-year period of analysis, which ends in 2092 in this report and thus includes an additional year of deficits.



CBO's Projections of Demographic and Economic Trends

The Congressional Budget Office's assessment of the long-term outlook for the federal budget is based on projections over the next three decades of trends in a host of demographic and economic variables. Through 2028, the economic and demographic projections presented in this report are the same as those that CBO published in April.¹ For the years beyond 2028, CBO's projections generally reflect historical trends and anticipated demographic changes. (Average values for 2018 to 2048, the period encompassed by CBO's extended baseline, as well as for shorter periods, are shown in Table A-1.² The table also provides historical data for comparison. A set of annual projections is included in this report's supplemental data, available online at www.cbo.gov/publication/53919.)

Demographic Variables

Both the size and composition of the U.S. population influence the overall growth of the economy and affect federal tax revenues and spending. Rates of fertility, immigration, and mortality determine the population and thus the size of the labor force and the number of people receiving benefits from federal programs such as Social Security and Medicare. CBO projects the population to be about the same in the future as it projected last year.

Population

In CBO's projections, the total population increases from 332 million at the beginning of 2018 to 392 million in 2048, and its annual growth rate gradually declines from 0.7 percent in 2018 to 0.4 percent in 2048. The population is projected not only to grow more slowly but also to become older, on average, than in the

past. In the agency's projections, over the 30-year period, the share of the population that is 65 or older grows, whereas the share that is of working age (defined as those between ages 20 and 64) shrinks. As a result, CBO projects, a growing portion of the population will receive benefits from the Social Security and Medicare programs while a shrinking portion will pay into the trust funds that support them.

Fertility

CBO projects a total fertility rate of 1.9 children per woman for the 2018–2048 period.³ (That rate, which represents the average number of children that a woman would have in her lifetime, is calculated as the sum of fertility rates for all ages between 15 and 49 in a given year.)⁴ The total fertility rate for the 1988–2007 period averaged 2.0 children per woman. Fertility rates often decline during recessions and rebound during recoveries. However, the U.S. fertility rate did not recover after the 2007–2009 recession; the rate (which was 2.1 in 2007) dropped and has remained below 1.9.⁵ CBO's projected rate is consistent with the rate recommended to the Social Security Advisory Board by its 2015 Technical Panel on Assumptions and Methods, the board's most recent panel.⁶

1. See Congressional Budget Office, *The Budget and Economic Outlook: 2018 to 2028* (April 2018), www.cbo.gov/publication/53651.

2. The extended baseline generally reflects current law, following CBO's 10-year baseline projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

3. In CBO's long-term model, the likelihood that a particular woman will have a child depends on such factors as that woman's education, marital status, immigration status, and childbearing history.

4. The total fertility rate can also be defined as the average number of children that a woman would have in her lifetime if, in each year of her life, she experienced the birth rates observed or assumed for that year and if she survived her entire childbearing period.

5. Recent data show that total fertility rates have remained below 1.9. See Brady E. Hamilton and others, *Births: Provisional Data for 2017*, Vital Statistics Rapid Release Report 4 (National Center for Health Statistics, May 2018), www.cdc.gov/nchs/nvss/vsrr/reports.htm.

6. See 2015 Technical Panel on Assumptions and Methods, *Report to the Social Security Advisory Board* (September 2015), p. 9, <https://go.usa.gov/cJYR5> (PDF, 3.4 MB).

Table A-1.

Average Annual Values for Demographic and Economic Variables That Underlie CBO's Extended Baseline

	1988–2017	2018–2028	2029–2038	2039–2048	Overall, 2018–2048
Demographic Variables					
Growth of the Population (Percent)	0.9	0.7	0.5	0.4	0.6
Fertility Rate (Children per woman)	2.0	1.9	1.9	1.9	1.9
Immigration Rate (Per 1,000 people in the U.S. population)	3.7	3.1	3.2	3.2	3.2
Life Expectancy at Birth, End of Period (Years) ^a	79.1	80.5	81.7	82.8	82.8
Life Expectancy at Age 65, End of Period (Years) ^a	19.4	20.2	20.9	21.7	21.7
Economic Variables (Percent)					
Growth of GDP					
Real GDP	2.5	1.9	1.9	1.9	1.9
Nominal GDP (Fiscal Year)	4.7	4.1	4.0	4.0	4.0
Growth of the Labor Force	1.0	0.5	0.4	0.4	0.4
Labor Force Participation Rate	65.6	62.1	60.3	59.6	60.7
Unemployment					
Unemployment rate	5.9	4.4	4.8	4.7	4.6
Natural rate of unemployment	5.1	4.6	4.5	4.5	4.5
Growth of Average Hours Worked	-0.1	*	-0.1	-0.1	*
Growth of Total Hours Worked	1.0	0.5	0.3	0.4	0.4
Earnings as a Share of Compensation	81	81	81	81	81
Growth of Real Earnings per Worker	0.9	1.5	1.2	1.1	1.2
Share of Earnings Below the Taxable Maximum	85	81	81	80	81
Growth of Productivity					
Total factor productivity	1.2	1.1	1.2	1.2	1.2
Labor productivity ^b	1.5	1.4	1.6	1.6	1.5
Inflation					
Growth of the CPI-U	2.6	2.4	2.4	2.4	2.4
Growth of the GDP price index	2.1	2.1	2.0	2.0	2.0
Interest Rates					
Real rates					
On 10-year Treasury notes and Social Security bonds	2.3	1.4	1.6	2.1	1.7
Nominal rates					
On 10-year Treasury notes and Social Security bonds	4.9	3.8	4.0	4.5	4.1
On all federal debt held by the public ^c	5.0	3.1	3.6	4.1	3.6

Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2028 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

CPI-U = consumer price index for all urban consumers; GDP = gross domestic product; * = between -0.05 percent and 0.05 percent.

- a. Life expectancy as used here is period life expectancy, which is the amount of time that a person in a given year would expect to survive beyond his or her current age on the basis of that year's mortality rates for various ages.
- b. The measure of labor productivity reported here is the ratio of real output to hours worked in the economy. Note that elsewhere CBO reports different measures of labor productivity, such as the ratio of potential real output to the potential labor force.
- c. The interest rate on all federal debt held by the public equals net interest payments in the current fiscal year divided by debt held by the public at the end of the previous fiscal year.

Immigration

Under current law, CBO projects, net immigration to the United States (a measure that accounts for all people who either enter or leave the United States in any year) would grow by an average of 0.7 percent per year over the next decade. Thereafter, net immigration is projected to grow more slowly, at a rate of 0.6 percent per year. On the basis of those projections, CBO expects net annual immigration to rise from 1.1 million people in 2018 to 1.3 million people in 2048. Expressed another way, the rate of net annual immigration per thousand people in the U.S. population would rise from an average of 3.1 over the next decade to 3.2 in 2048.

CBO's projection of net immigration over the next decade is informed by the agency's economic projections and by recent demographic trends, both of which have particularly important implications for projections of net unauthorized immigration. CBO's projections of unauthorized immigration are the result of two offsetting effects, to which the agency gave equal weight in its analysis. On the one hand, in CBO's estimation, periods of moderate growth in the U.S. economy over the past two decades have been associated with increases in unauthorized immigration; consequently, CBO's projections of economic growth suggest growth in such immigration over the coming decade. On the other hand, although unauthorized immigration is very difficult to measure, historical estimates indicate that the number of unauthorized immigrants in the United States in 2015 was about the same as in 2005. The implication is that factors other than the strength of the economy have been more important recently and may continue to be in the future.⁷

CBO projects that the increase in net immigration over the next decade would be mostly driven by increases in the number of legal permanent residents. The annual increase in the number of legal temporary and unauthorized immigrants is projected to be relatively steady over the next 10 years.

7. For the most recent estimates, see Jens Manuel Krogstad, Jeffrey S. Passel, and D'Vera Cohn, *As Mexican Share Declined, U.S. Unauthorized Immigrant Population Fell in 2015 Below Recession Level* (Pew Research Center, April 2017), <https://tinyurl.com/mn5zbb5>. For more details, see Jeffrey S. Passel and D'Vera Cohn, *Overall Number of U.S. Unauthorized Immigrants Holds Steady Since 2009* (Pew Research Center, September 2016), <https://tinyurl.com/j45zw05>. Official data on unauthorized immigrants do not exist, so historical estimates are very uncertain.

For projections beyond the next decade, CBO employed a simplified approach: After 2028, under current law, the agency projects that net immigration would grow at an average rate of 0.6 percent annually, slightly faster than the overall average rate of population growth.⁸

Mortality

The mortality rate, which is the number of deaths per thousand people, has generally declined in the United States for at least the past half century. For the most part, the mortality rate has dropped more quickly for younger people than for older people during that period. Mortality rates for each five-year age group are projected to decline at the same average pace each group experienced from 1950 through 2014. After projecting average mortality rates for men and women in each age group, CBO incorporates differences in those rates on the basis of marital status, education, disability insurance status, and lifetime household earnings. CBO projects lower mortality rates and thus longer life expectancies for people who are married, have more education, do not receive benefits through the Social Security Disability Insurance (DI) program, or are in higher-income groups.⁹ (For people under 30, the mortality projections account for age and sex only.)

CBO's projections result in an average life expectancy at birth of 82.8 years in 2048, compared with 79.2 years in 2018.¹⁰ Similarly, CBO projects life expectancy at age

8. That rate is based on the Census Bureau's projections for late in the coming decade. See Census Bureau, "2014 National Population Projections: Summary Tables," Table 1, <https://go.usa.gov/xQGwc>. The Census Bureau has recently released a new set of projections, but information from those projections has not been incorporated in this analysis. In those projections, the population is slightly smaller than the Census Bureau projected in 2014.

9. For more information about mortality differences among groups with different earnings, see Tiffany Bosley, Michael Morris, and Karen Glenn, *Mortality by Career-Average Earnings Level*, Actuarial Study 124 (Social Security Administration, April 2018), <https://tinyurl.com/yct5qdew> (PDF, 301KB); Congressional Budget Office, *Growing Disparities in Life Expectancy* (April 2008), www.cbo.gov/publication/41681; and Julian P. Cristia, *The Empirical Relationship Between Lifetime Earnings and Mortality*, Working Paper 2007-11 (Congressional Budget Office, August 2007), www.cbo.gov/publication/19096.

10. Life expectancy as used here is period life expectancy, which is the amount of time that a person in a given year would expect to survive beyond his or her current age on the basis of that year's mortality rates for various ages.

65 to be 21.7 years in 2048, or 2.2 years longer than life expectancy at age 65 in 2018.¹¹

Changes in Demographic Projections Since Last Year

CBO's projections of population growth in most years are very similar to those published in last year's report, except for small changes to CBO's projections of net immigration and mortality rates. Net immigration was projected to grow, on average, more quickly in the decade following 2017 in last year's report than it is projected to grow in the decade following 2018 in this year's report. That is because last year's projections included growth in 2017 that was higher than in the rest of the 10-year period. The average growth in net immigration over the decade following 2018 in this year's report does not include that year of higher growth.

The life expectancies CBO now projects are only slightly different from those reported last year. Life expectancy at birth is projected to be 82.7 years in 2047, 0.1 year shorter than CBO projected last year, and life expectancy at age 65 is projected to be 21.6 years, 0.1 year longer than in last year's projection. Those changes reflect recent data that show higher mortality rates than CBO expected last year for people ages 15 to 74 and lower mortality rates than expected last year for people 75 or older. Those data led CBO to increase its projection of mortality rates for people ages 15 to 74 in the near term and to reduce their rates of mortality improvement over the next three decades, which reduced CBO's projection of life expectancy at birth. In contrast, for people 75 or older, CBO decreased its projection of mortality rates and increased the rate of mortality improvement, which increased CBO's projection of life expectancy at age 65 throughout the 30-year period.

Economic Variables

The performance of the U.S. economy in coming decades will affect the federal government's tax revenues, spending, and debt accumulation. In CBO's analysis, the long-term effects depend on key economic variables such

as the growth of gross domestic product (GDP), the size and composition of the labor force, the number of hours worked, earnings per worker, capital accumulation, and productivity. Over the short term, the effects also depend on variables that fluctuate over the business cycle, such as inflation and interest rates. The agency also considers ways in which fiscal policy influences economic activity.

Gross Domestic Product

CBO expects total output in the economy to grow moderately over the 2018–2048 period. In the agency's projections, real GDP growth over that period averages 1.9 percent per year, about what was projected last year for the 2017–2047 period. However, the pattern of that growth is different in this year's projections; CBO now projects that real GDP grows faster over the next few years. As a result, the level of real GDP remains higher over the projection period.

Projections of GDP. CBO anticipates that recent changes to the tax code, changes in discretionary spending, and continuing increases in aggregate demand will spur a pickup in the growth of real GDP over the next few years (see Box 1 on page 26 for details on the effects of the recent changes to the tax code).¹² Thereafter, growth in real GDP is projected to make a transition to a pace that reflects the increases in the supply of labor, capital services, and productivity described below. That projected pace also takes into consideration the influences of the marginal tax rates and increases in federal debt that CBO projects in its extended baseline.¹³

Over the long term, total GDP is projected to be one-half of one percent below its potential (maximum sustainable) amount, as it has roughly been, on average, over past decades. Those projected outcomes reflect CBO's assessment that, during and after economic downturns, actual output has fallen short of potential output to a greater extent and for longer periods than actual output has exceeded potential output during economic booms.¹⁴

11. CBO projects life expectancy in 2090 to be 86.9 years at birth and 24.4 years at age 65. CBO's projections of life expectancies are longer than those of the Social Security trustees (85.8 and 23.5 years, respectively) but shorter than the projections (88.3 and 25.3 years, respectively) recommended by the 2015 Technical Panel on Assumptions and Methods in *Report to the Social Security Advisory Board* (September 2015), pp. 13–20, <https://www.usa.gov/cjYR5> (PDF, 3.4 MB).

12. Aggregate demand is total purchases by consumers, businesses, government, and foreigners of a country's output of final goods and services during a given period.

13. The marginal tax rate is the percentage of an additional dollar of income from labor or capital that is paid in taxes.

14. See Congressional Budget Office, *Why CBO Projects That Actual Output Will Be Below Potential Output on Average* (February 2015), www.cbo.gov/publication/49890.

Projected real GDP growth over the next three decades is slower than the average annual rate of 2.5 percent recorded over the past three decades, primarily because the labor force is anticipated to grow more slowly in the coming years. Moreover, with the labor force growing more slowly than the overall population, per capita real GDP is expected to increase at a slower pace than it has in the past—at an average annual rate of 1.4 percent over the 2018–2048 period, compared with 1.6 percent for the past 30 years.

Changes in Projections of GDP Since Last Year. In CBO’s current projections, the level of real GDP is about 1.4 percent higher in 2027 than the agency projected last year. That gap shrinks over the next two decades; by 2047 real GDP is 0.7 percent higher than it was last year. The higher level of real GDP in this year’s projections stems primarily from three factors: revisions to historical data, changes in federal fiscal policy, and improvements in analytical methods.

The Rate of Labor Force Participation

The size of the labor force is determined by the size of the population and the rate at which people participate in the labor market. CBO has slightly raised its projection of the labor force participation rate since last year.

Projections of the Labor Force Participation Rate. In CBO’s projections, the rate of labor force participation—that is, the share of the civilian noninstitutionalized population age 16 or older that is either working or seeking work—declines from 62.8 percent in 2018 to 61.0 percent in 2028 and to 59.5 percent in 2048. The aging of the population is the most important factor driving down the overall participation rate over the next 30 years; the effects of other factors roughly offset one another.

Because older people tend to participate in the labor force at lower rates than younger people, the aging of the population is expected to significantly dampen the rate of participation over the next 30 years. The share of people over the age of 65 is projected to increase from 16 percent in 2018 to 22 percent in 2048, and the share of the population ages 20 to 64 is expected to decline from 59 percent to 55 percent during that 30-year period. Without the effects of an aging population—that is, if the age-and-sex composition of the population remained the same as it is expected to be in 2018—the

labor force participation rate would stay roughly constant over the next 30 years, in CBO’s judgment.¹⁵

The effects of several other trends and fiscal policies roughly offset one another. Three trends put downward pressure on the participation rate:

- Men of the generations that followed the baby boomers tend to participate in the labor force at lower rates than male baby boomers did at the same age. (The participation of women from generations following the baby boomers has remained relatively constant.)
- The share of people receiving DI benefits is generally projected to continue to rise, and people who receive such benefits are less likely to work.
- The marriage rate is projected to continue to fall, especially among men, and unmarried men tend to participate in the labor force at lower rates than married men.

CBO expects those forces to be mostly offset by two trends. As the population becomes more educated, labor participation rates are expected to increase because workers with more education tend to participate in the labor force at higher rates than do people with less education. Second, increasing longevity is expected to lead people to continue working to increasingly older ages.¹⁶

In addition to the effects of those demographic trends, recent changes in tax law, combined with economic and budgetary trends, would also affect the labor force:

- CBO estimates that, under current law, lower tax rates on labor would increase participation in the labor force over most of the next decade because individuals would see a greater return on their labor. However, the lower tax rates are scheduled to expire

15. That calculation includes an adjustment for age and sex, but the sex composition of the population is projected to change only slightly. Therefore, the decline in the labor force participation rate is attributable almost entirely to aging.

16. The agency recently updated its methods for projecting labor force participation to more adequately account for recent trends in educational attainment and aging. See Josh Montes, *CBO’s Projection of Labor Force Participation Rates*, Working Paper 2018-04 (Congressional Budget Office, March 2018), www.cbo.gov/publication/53616.

at the end of 2025, reducing the incentive to work, which would in turn reduce participation in the labor force toward the end of the decade.

- In addition, major tax legislation enacted in 2017 adopted an alternative measure of inflation for the tax code that grows slightly more slowly than the inflation measure used previously. Tax brackets, which are set to increase with inflation, will increase more slowly because of this new measure. Consequently, real income growth in the future will cause an increased share of labor income to be pushed into higher tax brackets. Over time, under an assumption that current laws remain unchanged, that bracket creep would reduce incentives to work.
- Rising federal deficits are projected to slow growth in the stock of private capital and limit the growth of after-tax wages, also reducing the supply of labor. However, recent changes to the tax code provide greater incentives to invest, mitigating some of the effects of higher deficits on the stock of private capital.

Changes in Projections of the Labor Force Participation Rate Since Last Year. CBO's current projections of the labor force participation rate through 2025 are higher than its projections last year because of the enactment of individual tax provisions that raise after-tax wages during the next several years. Last year, CBO projected the participation rate would be 61.3 percent by 2025. This year, CBO projects the participation rate to be 61.7 percent in 2025.

Beyond 2025, participation rates over the next three decades are slightly higher than the rates published last year. Last year, the participation rates were projected to be 61.0 percent in 2027 and 59.3 percent in 2047. In the current projections, those rates are 61.2 percent and 59.5 percent, respectively.

When combined with CBO's projections of the population, the projected rates of labor force participation imply that the labor force grows by 0.4 percent per year, on average, over the 2018–2048 period. That rate is slightly less than the 0.5 percent per year projected a year ago.

Other Labor Market Outcomes

Among the factors accounted for in CBO's labor market projections—in addition to the size of the population and the rate of labor force participation—are the unemployment rate, the average and total number of hours that people work, and various measures of workers' earnings. The agency has changed its projections of those variables over the past year because of updates to historical data and reexamination of recent trends.

Unemployment. In CBO's projections, the unemployment rate, which was 4.1 percent at the end of 2017, declines to 3.3 percent in 2019, gradually rises to 4.8 percent by 2024, and then remains at that level, on average, through 2028. In the meantime, the natural rate of unemployment (the rate that results from all sources other than fluctuations in overall demand related to the business cycle) is projected to remain at 4.6 percent from 2018 to 2028. From 2024 onward, the unemployment rate is expected to remain about one-quarter of one percentage point above the natural rate, a difference that is consistent both with the historical average relationship between the two measures and with the projected gap of one-half of one percent between actual and potential GDP.

After 2028, both the actual and the natural rates of unemployment are projected to decline gradually as the labor force ages and becomes increasingly more educated. (Older and more educated workers tend to have lower actual and natural rates of unemployment.) By 2048, the natural rate of unemployment is projected to be slightly less than 4.4 percent, and the actual rate is projected to be about 4.7 percent.

Average Hours Worked. Different subgroups of the labor force work different numbers of hours, on average. Men tend to work more hours than women do, for example, and people between the ages of 30 and 40 tend to work more hours than people between the ages of 50 and 60. In CBO's estimation, those differences among groups will remain stable. However, over the long term, the composition of the labor force is projected to shift toward groups that tend to work less (such as older workers). As a result, the average number of hours worked by the labor force as a whole is expected to decline slightly. By 2048, the average number of hours that people work is expected to be about 1 percent less than it is today.

Total Hours Worked. On the basis of projections of the size of the labor force, average hours worked, and unemployment, total hours worked are estimated to increase at an average annual rate of 0.4 percent between 2018 and 2048.

Earnings as a Share of Compensation. Workers' total compensation consists of taxable earnings and non-taxable benefits such as employers' contributions to health insurance and pensions. Over the years, the share of total compensation paid in the form of earnings has declined—from about 90 percent in 1960 to about 81 percent in 2017—mainly because the cost of health insurance has risen more quickly than total compensation.¹⁷

CBO expects that trend in health care costs to continue, which would further decrease the proportion of compensation that workers receive as earnings. However, under current law, a new excise tax on certain employment-based health insurance plans that have premiums above specified amounts is scheduled to take effect in 2022. Some employers and workers are expected to respond by shifting to less expensive plans, thereby reducing the share of compensation consisting of health insurance premiums and increasing the share that consists of earnings. In CBO's projections, the effects of the tax on the mix of compensation roughly offset the effects of rising costs for health care until the effects of rising costs outweigh those of the excise tax late in the projection period. As a result, the share of compensation that workers receive as earnings is projected to remain close to 81 percent through most of the 2018–2048 period.

Growth of Real Earnings per Worker. Projections of prices, nonwage compensation (such as employment-based health insurance), average hours worked, and labor productivity (discussed below) imply that real earnings per worker grow by an average of 1.2 percent annually over the 2018–2048 period. That rate is higher than the average annual growth—0.9 percent—of real earnings per worker over the last 30 years.

Distribution of Earnings. Over the past several decades, earnings have grown faster for higher earners than for lower earners. In CBO's projections, the unequal growth in earnings continues for the next three decades. The

distribution of earnings affects revenues from income taxes and payroll taxes, among other things. Income taxes are affected by the earnings distribution because of the progressive rate structure of the income tax; people with lower earnings pay a smaller share of their earnings than people with higher earnings.

Social Security payroll taxes are also affected by the earnings distribution. Those taxes are levied only on earnings up to a certain annual amount (\$128,400 in 2018). Below that amount, earnings are taxed at a combined rate of 12.4 percent, split between the employer and employee (self-employed workers pay the full amount); no tax is paid on earnings above the cap. The taxable maximum has remained a nearly constant proportion of the average wage since the mid-1980s, but because earnings have grown more for higher earners than for others, the portion of covered earnings on which Social Security payroll taxes are paid has fallen from 90 percent in 1983 to 83 percent in 2016.¹⁸ The portion of earnings subject to Social Security taxes is projected to fall to about 81 percent by 2028 and to fall below 80 percent by 2048.

Changes in Projections of Other Labor Market

Outcomes Since Last Year. Projections of most other labor market outcomes are similar to what CBO projected last year. For example, CBO's long-term projection of the natural rate of unemployment is only slightly lower than its projection a year ago because of updates to historical data and trends.

An important change since last year in the labor market outcomes discussed in this section is to the projected distribution of earnings. Data for the past few years show smaller-than-expected increases in the share of wages and salaries received by higher earners. In response, the agency made a downward revision to projected increases in that share over the next decade. As a result, in this year's projections, households with lower individual income tax rates earn a larger share of total income than CBO projected last year, and total income tax revenues are lower than would otherwise be the case.

Additionally, with a smaller share of wages and salaries received by higher earners, a larger share is received by

17. For more details, see Congressional Budget Office, *How CBO Projects Income* (July 2013), www.cbo.gov/publication/44433.

18. Covered earnings are those received by workers in jobs subject to Social Security payroll taxes. Most workers pay payroll taxes on their earnings, although a small number—mostly in state and local government jobs or in the clergy—are exempt.

people whose annual earnings are below the maximum amount subject to Social Security payroll taxes. Thus, the share of earnings below the taxable maximum is expected to decline more slowly than CBO projected last year. In last year's projections, the share of earnings below the taxable maximum declined until 2027 and then remained at roughly that level through the end of the projection period. In this year's projections, the share of earnings below the taxable maximum declines gradually through 2048. By 2027 that share is 1.4 percentage points higher than in last year's projections, and declines to roughly the same level in 2047 as CBO projected last year. Over the 30-year period, that share is about half of a percentage point higher, on average, than CBO estimated last year.

Capital Accumulation and Productivity

In addition to growth in the labor force and the number of hours worked, two other important factors affect the growth in output. One is the accumulation of capital, including physical structures, equipment, land, and inventories used in production, along with intangible capital such as computer software. The accumulated stock contributes a stream of services to production. The second is the growth of total factor productivity (TFP), which is the growth of real output per unit of combined labor and capital services—that is, the growth of output that is not explained by the growth of labor and capital. Combined, the growth rates projected for the labor supply, the capital stock, and TFP result in a projection of the average growth of labor productivity (output per worker).

Capital Services. Over the longer term, in CBO's view, growth in the nation's stock of capital will be driven by private saving, federal borrowing, and international flows of financial capital. Private saving and international capital flows tend to move with the after-tax rate of return on investment, which measures the extent to which investment in the stock of capital results in a flow of income. That rate is affected both by tax rates and by the growth of TFP. Recent reductions in statutory tax rates on corporations permanently increase incentives to invest in capital and consequently raise the level of capital services.

Total Factor Productivity. The annual growth of TFP is projected to increase from about 0.9 percent in 2018 to about 1.2 percent in 2022 and then to remain at that rate through 2048, yielding an average annual growth rate of roughly 1.2 percent from 2018 to 2048. That projected growth rate is about 0.3 percentage points

slower than the average annual rate of 1.5 percent observed since 1950 and slightly slower than the average rate recorded since 1990.

The projected path for TFP reflects several considerations that, in CBO's judgment, suggest slower growth in coming decades than the long-term historical average. For example, with the exception of a period of rapid growth in the late 1990s and early 2000s, productivity has tended to grow more slowly in recent decades than it did during the 1950s and 1960s. The long-term trend suggests that projections for the next few decades should place greater weight on more recent, slower growth than on the relatively rapid growth of the more distant past. Thus, although CBO projects an acceleration of TFP growth from its unusually slow recent rate, the agency anticipates it to return to a rate that is slower than its long-term historical average.

A number of developments support slow-growth projections for TFP. One is the anticipated slowing of growth in labor quality, a measure of workers' skills that accounts for educational attainment and work experience that, in CBO's analysis, is implicitly a part of TFP. Following a relatively rapid rise during the 1980s and 1990s, growth in labor quality slowed after 2000. In CBO's judgment, that change results both from a gradual slowdown in the increase in average educational attainment and from the burgeoning retirement of a relatively large and skilled portion of the workforce—the baby-boom generation. In coming decades, however, the slowdown in the growth of labor quality is expected to be partly offset by the aging of those remaining in the labor force, especially as better health and longer life expectancy lead people to stay in the workforce longer than did members of previous generations. (An older workforce generally has a larger proportion of more highly educated workers because they tend to remain in the labor force longer than do workers with less education.) Nevertheless, CBO anticipates slower growth in labor quality than in the past.

Another factor that is projected to slow the growth of TFP relative to its long-term average is the projected reduction in spending for federal investment. Under the assumptions used for CBO's baseline, the government's nondefense discretionary spending is projected to decline over the next decade to a much smaller percentage of GDP than it has averaged in the past. About half of nondefense discretionary spending from the 1980s onward has consisted of federal investment in physical

capital (such as roads and other infrastructure), education and training, and research and development—all of which, in CBO’s judgment, contributed to TFP growth. Consequently, lower nondefense discretionary spending as a percentage of GDP would mean less federal investment, causing TFP to grow more slowly.

In contrast, changes to the tax code are projected to raise productivity by discouraging multinational corporations’ profit-shifting strategies that historically have reduced official estimates of TFP. Because TFP is a component of GDP, CBO projects an increase in GDP as tax incentives encourage firms to claim as domestic production the services of intellectual property that were previously claimed as production abroad. CBO has slightly increased its projections of TFP to account for this anticipated increase in output, which is not matched by an increase in production inputs.

Labor Productivity. Taken together, the projections of labor supply, capital services, and TFP result in labor productivity that is expected to grow by 1.5 percent annually over the 2018–2048 period.¹⁹

Changes in Projections of Capital Accumulation and Productivity Since Last Year. CBO projects roughly the same average TFP growth that it projected last year. However, CBO’s projection of capital services is above the level it projected last year, largely because of stronger investment incentives in the tax code that cause businesses to raise investment.

Inflation

CBO projects rates of inflation for two categories: prices of consumer goods and services and prices of final goods and services in the economy.²⁰ Those rates influence nominal (current year) levels of income and interest rates and thereby influence tax revenues, various types of federal expenditures that are indexed for inflation, and interest payments on federal debt.

Prices of Consumer Goods and Services. One measure of consumer price inflation is the annual rate of change in the consumer price index for all urban consumers (CPI-U). Over the 2018–2048 period, inflation in that measure averages 2.4 percent in CBO’s projections. That long-term rate is slightly less than the average rate of inflation since 1990 of 2.5 percent per year. CBO projects that, under a chained measure of inflation, prices grow at a rate 0.25 percent less than the annual increase in the consumer price index.²¹

Prices of Final Goods and Services. After 2018, the annual inflation rate for all final goods and services produced in the economy, as measured by the rate of increase in the GDP price index, is projected to average 0.4 percentage points less than the annual increase in the consumer price indexes. The GDP price index grows more slowly than the consumer price indexes because it is based on the prices of a different set of goods and services and a different method of calculation.

Changes in Projections of Inflation Since Last Year.

Inflation in both measures of consumer prices is projected to be roughly the same as the rates CBO projected last year for the 2017–2047 period.

Interest Rates

CBO projects the interest rates, both real and nominal, that apply to federal borrowing, including the rate on 10-year Treasury notes and special-issue Social Security bonds. It also projects the average nominal interest rates on federal debt held by the public and on the bonds held in the Social Security trust funds. Those rates influence the cost of the government’s debt burden and the evolution of the trust funds.

After considering a number of factors, including slower growth of the labor force, CBO expects real interest rates on federal borrowing to be lower in the future than they have been, on average, over the past few decades. The

19. The measure of labor productivity reported here is the ratio of real output to hours worked in the economy. Note that elsewhere CBO reports different measures of labor productivity, such as the ratio of potential real output to the potential labor force.

20. Final goods and services are those purchased directly by consumers, businesses (for investment), and governments, as well as net exports.

21. The chained CPI-U tends to grow more slowly than the standard CPI-U because it uses a formula that better accounts for households’ tendency to substitute similar goods and services for each other when relative prices change and because, unlike the CPI-U, it is little affected by statistical bias related to the sample sizes that the Bureau of Labor Statistics uses in computing each index. Historically, inflation as measured by the chained CPI-U has been 0.25 percentage points lower, on average, than inflation as measured by the CPI-U. CBO’s projections reflect that average difference between the two measures.

real interest rate on 10-year Treasury notes (calculated by subtracting the rate of increase in the consumer price index from the nominal yield on those notes) averaged roughly 2.9 percent between 1990 and 2007.²² That rate has averaged 1.0 percent since 2009 and is projected to be 1.4 percent in 2028. In CBO's projections, the rate continues to rise thereafter, reaching 2.4 percent in 2048, 0.5 percentage points below its average over the 1990–2007 period. CBO's projections of interest rates this year are higher than last year's.

Factors Affecting Interest Rates. Interest rates are determined by a number of factors. CBO projects the rates by comparing how the values of those factors are expected to differ in the long term relative to their average values in the past. However, conclusions from such analyses depend greatly on the period being considered, as some recent decades show: Real interest rates were low in the 1970s because of an unexpected surge in inflation. In the 1980s, when inflation declined at an unexpectedly rapid pace, real rates were high.²³ Interest rates fell sharply during the financial crisis and recession that began in 2007.

To avoid using any of those possibly less representative periods, CBO considered average interest rates and their determinants over the 1990–2007 period and then judged how different those determinants might be over

the long term.²⁴ That period was chosen for comparison because it featured fairly stable expectations of inflation and no severe economic downturns or significant financial crises.

Some factors reduce interest rates; others increase them. In CBO's estimates for the 2018–2048 period, several factors tend to reduce interest rates on government securities relative to their 1990–2007 average:

- The labor force is projected to grow much more slowly than it did from 1990 to 2007. That slower growth in the number of workers would tend to increase the amount of capital per worker in the long term, reducing the return on capital and, therefore, also reducing the return on government bonds and other investments.²⁵
- The share of total income received by higher-income households is expected to be larger in the future than during the 1990–2007 period. Higher-income households tend to save a greater proportion of their income, so the difference in the distribution of income is projected to increase the total amount of saving available for investment, other things being equal. As a consequence, the amount of capital per worker is projected to rise and interest rates are expected to be lower.
- TFP is projected to grow more slowly in the future than it did from 1990 to 2007. For a given rate of investment, lower productivity growth reduces the return on capital and results in lower interest rates, all else being equal.
- CBO expects investors' preferences for Treasury securities relative to riskier assets to remain elevated compared with inclinations over the 1990–2007 period. Investors began to have less appetite for risk

22. Between 1970 and 2007, the real interest rate on 10-year Treasury notes averaged 2.8 percent; the average from 1954 to 2007 was 2.6 percent. Historical inflation rates are taken from the consumer price index, adjusted to account for changes over time in the way that the index measures inflation. See Bureau of Labor Statistics, "CPI Research Series Using Current Methods (CPI-U-RS)" (March 28, 2018), www.bls.gov/cpi/cpiurs.htm.

23. CBO calculates real interest rates by subtracting expected rates of inflation from nominal interest rates. In general, borrowers and lenders agree to nominal interest rates after accounting for their expectations of what inflation will be. However, if inflation ends up being higher than was expected when the rates were agreed to, real interest rates will turn out to be lower than anticipated. If inflation ends up lower than expected, the opposite will occur. CBO uses the actual consumer price index, adjusted to account for changes over time in the way that the index measures inflation, as a proxy for both what expectations of inflation have been in the past and what they will be in the future. One drawback is that if inflation fluctuates rapidly over time, changes in expectations may lag behind changes in actual inflation. Although CBO's approach could mismeasure expectations of inflation and real interest rates in some years, the way inflation has varied over time suggests that CBO's approach is a useful proxy over long periods, on average.

24. A Bank of England study identified a similar set of determinants that account for the decline in real interest rates over the past 30 years. See Rachel Lukasz and Thomas D. Smith, *Secular Drivers of the Global Real Interest Rate*, Staff Working Paper 571 (Bank of England, December 2015), <https://tinyurl.com/z6zqnb7> (PDF, 1.8 MB).

25. For more information about the relationship between the growth of the labor force and interest rates, see Congressional Budget Office, *How Slower Growth in the Labor Force Could Affect the Return on Capital* (October 2009), www.cbo.gov/publication/41325.

in the early 2000s, and the demand for low-risk assets was strengthened by the economic fallout from the financial crisis, the slow subsequent recovery, and financial institutions' response to increased regulatory oversight. Moreover, in the past several years, the perception that investments in emerging market economies were riskier than investments in the United States probably contributed to the increased demand for U.S. assets (particularly federal debt) that are considered to be relatively risk-free. The rise in demand for Treasury securities from those sources contributed to lower returns (that is, to lower interest rates). CBO expects preferences for Treasury securities relative to riskier assets to gradually decline over the next three decades but to remain above their average levels from 1990 to 2007.

At the same time, in CBO's estimates, several factors tend to boost interest rates on government securities relative to their average over the 1990–2007 period:

- Under CBO's extended baseline, federal debt is projected to be much larger as a percentage of GDP than it was before 2007—reaching 96 percent by 2028 and 152 percent by 2048. The latter figure is more than three and a half times the average over the 1990–2007 period. Greater federal borrowing tends to crowd out private investment in the long term, reducing the amount of capital per worker and increasing both interest rates and the return on capital over time.
- CBO anticipates that emerging market economies will attract a greater share of foreign investment in coming decades than they did in the 1990–2007 period. As economic and financial conditions in those economies continue to improve, they will become increasingly attractive destinations for foreign investment. CBO projects that development to put upward pressure on interest rates in the United States.
- The capital share of income—the percentage of total income that is paid to owners of capital—has been on an upward trend for the past few decades. The share is projected to decline over the next decade from its current, elevated level but remain higher than its average over recent decades. The factors that appear to have contributed to the rise in income for owners of capital (such as technological change and globalization) are likely to persist, keeping it above

the historical average. In CBO's estimation, a larger share of income accruing to owners of capital would directly boost the return on capital and, thus, interest rates.

- The retirement of members of the baby-boom generation and slower growth of the labor force will reduce the number of workers in their prime saving years relative to the number of older people who are drawing down their savings, CBO projects. As a result, in CBO's estimates, the total amount of saving available for investment decreases (all else being equal), which tends to reduce the amount of capital per worker and thereby push up interest rates. (CBO estimates that this effect only partially offsets the positive effect of increased income inequality on saving, leaving a net increase in savings available for investment.)

Some factors mentioned above are easier than others to quantify. For instance, the effect of labor force growth and rising federal debt can be estimated from available data, theoretical models, and estimates in the literature. The extent to which other factors will affect interest rates is more difficult to estimate. A shift in preferences for low- rather than high-risk assets is not directly observable, for example. And although the distribution of income is observable, neither models nor empirical estimates offer much guidance for quantifying its effect on interest rates.

In light of those sources of uncertainty, CBO relies not only on economic models and findings from the research literature but also on information from financial markets to guide its assessments of the effects of various factors on interest rates over the long term. The current rate on 30-year Treasury bonds, for example, reflects market participants' judgments about the path that interest rates on short-term securities will take 30 years into the future. That market forecast informs CBO's assessment of market expectations for the risk premium—the premium paid to investors for the extra risk associated with holding longer-term bonds—and for investment opportunities in the United States and abroad, and it points to considerably lower interest rates well into the future than those of recent decades.

Projections of Interest Rates. CBO anticipates considerable movement in long-term interest rates over the first 11 years of the projection. For the next few years, CBO

projects interest rates to rise as GDP expands beyond its potential and the Federal Reserve tightens monetary policy. Beginning in late 2021, CBO expects long-term interest rates to decline as GDP growth slows and the economy moves back towards its historical relationship with potential output. Beginning in 2024, long-term interest rates in CBO's projections gradually rise in response to increases in the ratio of debt to GDP.

The nominal interest rate on 10-year Treasury notes is projected to average 4.1 percent over the 2018–2048 period and to reach 4.8 percent in 2048. The real interest rate on 10-year Treasury notes is projected to average about 1.7 percent and, at the end of the period, to be 2.4 percent.

The average interest rate on all federal debt held by the public tends to be lower than the rates on 10-year Treasury notes because interest rates are generally lower on shorter-term debt than on longer-term debt and because Treasury securities are expected to mature, on average, over periods of less than 10 years.²⁶ CBO projects a 0.4 percentage-point difference between the rate on 10-year Treasury notes and the effective rate on federal debt over the 2029–2048 period. That difference is projected to average 0.6 percentage points over the next decade. The difference is larger over the coming decade than for later years because a significant portion of federal debt that will be outstanding during the next 10 years was issued at the very low interest rates prevailing in the aftermath of the 2007–2009 recession. (The average interest rate on all federal debt changes more slowly than the 10-year rate because only a portion of federal debt matures each year.) Thus, in CBO's projections, the average nominal interest rate on all federal debt held by the public is about 3.6 percent for the 2018–2048 period and reaches 4.4 percent in 2048.

The Social Security trust funds hold special-issue bonds that generally earn interest at rates that are higher than the average rate on federal debt. In CBO's projections, the nominal interest rate on bonds newly issued to the trust funds averages 4.1 percent over the

2018–2048 period and reaches 4.8 percent in 2048. The corresponding real rates are 1.7 percent, on average, over the full period and 2.4 percent in 2048.

Because interest rates have been low for much of the past decade, CBO projects the average interest rate earned by all bonds held (both new and previously issued) by the Social Security trust funds to be slightly lower than the interest rate on newly issued bonds over the next decade. The average interest rate on all bonds, which CBO uses to calculate the present value of future streams of revenues and outlays for those funds, is projected to average 3.8 percent for the 2018–2048 period.²⁷

Changes in Projections of Interest Rates Since Last Year. CBO's projections of interest rates this year are higher than last year's. The real rates on 10-year Treasury notes and the Social Security bonds are projected to average 1.7 percent over the 2018–2048 period and to be 2.3 percent in 2047. Last year, CBO projected both rates would average 1.5 percent over the 2017–2047 period and would be 2.3 percent in 2047.

The path of interest rates is higher in this year's projections than in last year's. Long-term interest rates are poised to end the first half of 2018 roughly half a percentage point higher than CBO projected last year. The higher rate probably reflects the expectation of tighter monetary policy (in response to a stronger labor market and greater inflationary pressure) as well as reduced demand for long-term Treasury bonds. Both trends are expected to continue over the next several years. In addition, CBO projects greater federal borrowing to push up interest rates. The upward revision to 10-year Treasury rates is anticipated to peak at 1 percentage point in 2020. The upward revision is predicted to be smaller in later years, as economic growth returns to its historical relationship with potential output growth and downward revisions to projected deficits gradually reduce the upward revision to the stock of debt. From 2023 to 2047, the 10-year Treasury rate is roughly unchanged in this year's report compared to last year's projection.

26. In particular, from 2018 to 2028, the difference between the rate on 3-month Treasury bills and the rate on 10-year Treasury notes shrinks from 1.2 percentage points to its longer-run level of 1 percentage point.

27. A present value is a single number that expresses a flow of past and future income or payments in terms of an equivalent lump sum received or paid at a specific time. The value depends on the rate of interest, known as the discount rate, that is used to translate past and future cash flows into current dollars at that time.

APPENDIX
B

Changes in Long-Term Budget Projections Since March 2017

The 30-year projections of federal spending and revenues presented in this report differ from the projections that the Congressional Budget Office published in 2017 because of certain changes in law, revisions to some of the agency's assumptions and methods, the availability of more recent data, and changes to the agency's projections of demographic and economic variables.¹ For the same reasons, CBO's 10-year projections have also changed since 2017, and they serve as the foundation for the 30-year projections. The 10-year projections are typically published in *The Budget and Economic Outlook*; however, since the publication of that report in April, the agency has adjusted them.² As a result, the long-term projections in this report are based on those adjusted projections (see Table B-1).

This appendix compares CBO's current long-term budget projections with those published last year. Because most of the projections in the 2017 report ended in 2047, the appendix compares projections only through that year.

Measured as a percentage of gross domestic product (GDP), federal debt held by the public is now projected to be higher through 2041, and lower thereafter, than CBO projected last year. Under the extended baseline, debt is projected to grow from about 78 percent of

GDP this year to 148 percent in 2047; last year, CBO projected that it would rise from 77 percent of GDP in 2018 to 150 percent in 2047 (see Figure B-1).³ The revised projections of debt resulted from changes in both spending and revenue projections, all of them presented here as a percentage of GDP:

- Projected noninterest spending is lower than CBO anticipated last year, though the difference shrinks toward the end of the 30-year projection period. The main cause is downward revisions to outlays for Social Security and the major health care programs in CBO's projections, though those reductions in mandatory spending are partially offset by increases in discretionary spending.⁴
 - Net spending for interest is projected to be higher through the late 2030s than it was in last year's projections and lower thereafter. The initial difference results from higher projected interest rates and greater projected levels of debt held by the public than CBO projected last year. That relationship reverses later in the projection period as deficits become smaller than projected a year ago, a change that leads to lower interest costs and slower accumulation of debt.
 - Projected revenues are lower through 2026 than they were in last year's projections, similar for most of the following two decades, and then slightly higher by the end of the 30-year projection period. Those changes reflect provisions of Public Law 115-97, which is referred to here as the 2017 tax act.
3. The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.
 4. Mandatory spending is generally governed by provisions of permanent law, whereas discretionary spending is controlled by annual appropriation acts.

1. See Congressional Budget Office, *The 2017 Long-Term Budget Outlook* (March 2017), www.cbo.gov/publication/52480. The changes in demographic and economic projections are described in Appendix A of this report.
2. In total, the adjustments reduced the projected deficit for 2018 by \$12 billion and reduced projected deficits over the 2019–2028 period by a cumulative \$17 billion. For the April report, see Congressional Budget Office, *The Budget and Economic Outlook: 2018 to 2028* (April 2018), www.cbo.gov/publication/53651. For the adjusted projections, see Congressional Budget Office, *An Analysis of the President's 2019 Budget* (May 2018), www.cbo.gov/publication/53884.

Table B-1.

Comparison of CBO's Adjusted April 2018 Baseline and January 2017 Baseline

Billions of Dollars											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Adjusted April 2018 Baseline											
Revenues	3,339	3,490	3,680	3,829	4,016	4,232	4,448	4,667	5,003	5,301	5,520
Outlays	4,131	4,463	4,683	4,947	5,290	5,505	5,693	6,020	6,324	6,616	7,047
Deficit	-793	-973	-1,003	-1,118	-1,275	-1,273	-1,245	-1,352	-1,321	-1,314	-1,527
Debt Held by the Public at the End of the Year ^a	15,676	16,743	17,804	18,970	20,290	21,609	22,904	24,310	25,687	27,058	28,642
January 2017 Baseline											
Revenues	3,604	3,733	3,878	4,019	4,176	4,346	4,527	4,724	4,931	5,140	n.a.
Outlays	4,091	4,334	4,562	4,816	5,135	5,346	5,554	5,890	6,228	6,548	n.a.
Deficit	-487	-601	-684	-797	-959	-1,000	-1,027	-1,165	-1,297	-1,408	n.a.
Debt Held by the Public at the End of the Year ^a	15,416	16,092	16,845	17,704	18,721	19,776	20,858	22,078	23,430	24,893	n.a.
Difference Between Adjusted April 2018 Baseline and January 2017 Baseline											
Revenues	-265	-243	-199	-190	-160	-114	-79	-57	72	161	n.a.
Outlays	40	129	121	132	155	158	139	130	96	68	n.a.
Deficit ^b	-305	-372	-320	-322	-315	-272	-217	-187	-24	93	n.a.
Debt Held by the Public at the End of the Year ^a	260	650	959	1,266	1,569	1,832	2,046	2,232	2,257	2,165	n.a.

Sources: Congressional Budget Office; staff of the Joint Committee on Taxation.

n.a. = not applicable.

a. The net amount that the Treasury borrows is determined primarily by the annual budget deficit. In addition, several factors—collectively labeled “other means of financing” and not directly included in budget totals—also affect the government’s need to borrow from the public.

b. Negative numbers indicate that CBO’s projection of the deficit has grown.

Over most of the coming decade, the decrease relative to last year’s projections, measured as a share of GDP, is larger for revenues than for noninterest spending (see Figure B-2). The result is that projected deficits through 2025 are now markedly larger than previously projected. Beginning in 2026, however, they are smaller than previously projected.

Changes in Projected Spending

In CBO’s extended baseline, noninterest spending as a percentage of GDP is slightly lower than anticipated last year, mainly because the agency’s projections of outlays for Social Security and the major health care programs have fallen. CBO’s projections of discretionary spending, by contrast, are higher than they were a year ago. Projections of net interest costs are higher than previously projected through the late 2030s and then lower.

Noninterest Spending

As a share of GDP, noninterest spending—that is, spending for Social Security, spending for the major federal health care programs, and other noninterest spending—is projected to be about the same in 2018 as projected last year and lower thereafter. Specifically, it is projected to equal 19.0 percent of GDP in 2018 and to reach 23.0 percent of GDP by 2047 (0.2 percentage points lower than in last year’s projection).

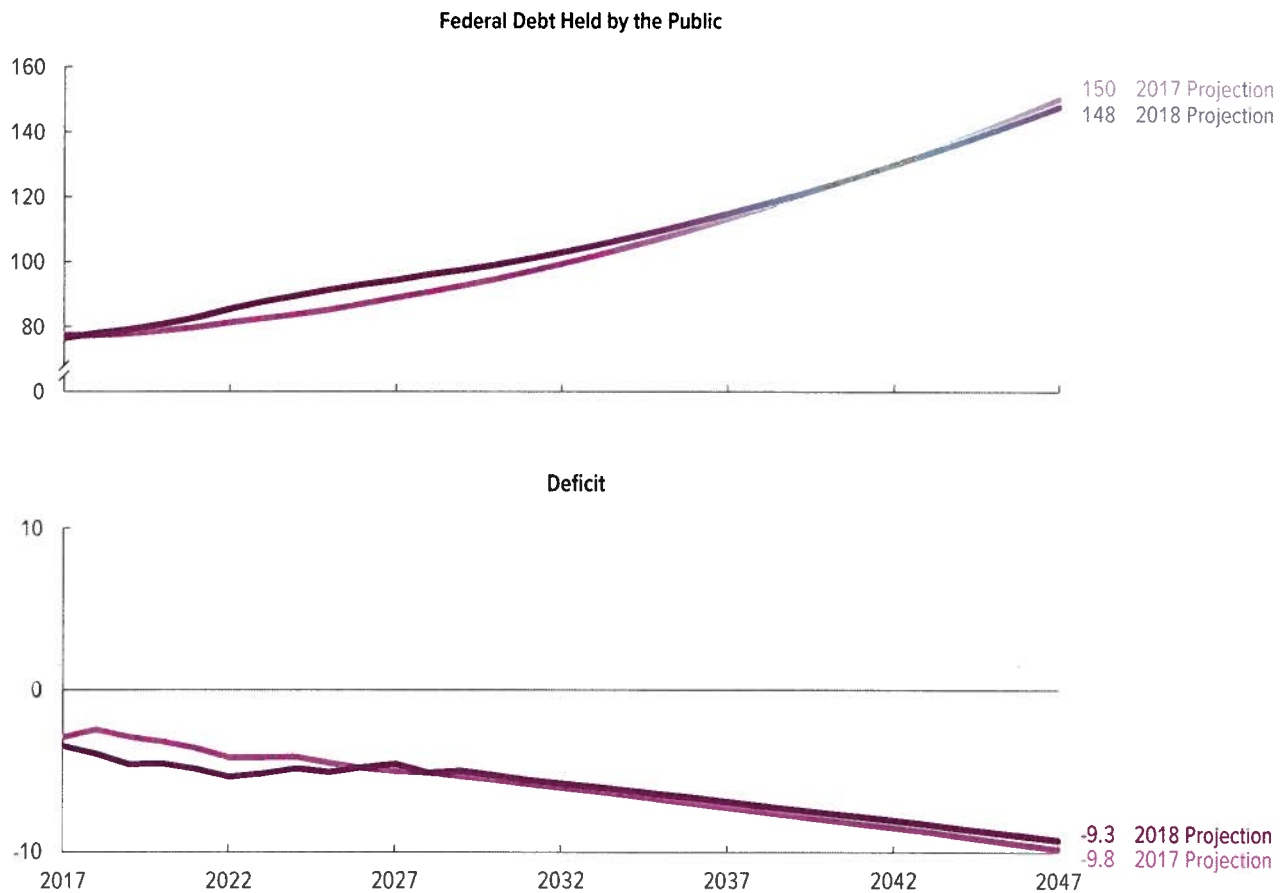
Social Security Spending. CBO projects that outlays for Social Security as a percentage of GDP will be slightly lower than the agency anticipated last year. That change reflects slightly lower projections of nominal outlays over the next 10 years and higher projections of GDP.

The revisions to nominal outlays over the next 10 years include a downward adjustment of projected spending

Figure B-1.

Comparison of CBO's 2017 and 2018 Projections of Federal Debt Held by the Public and the Deficit in the Extended Baseline

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

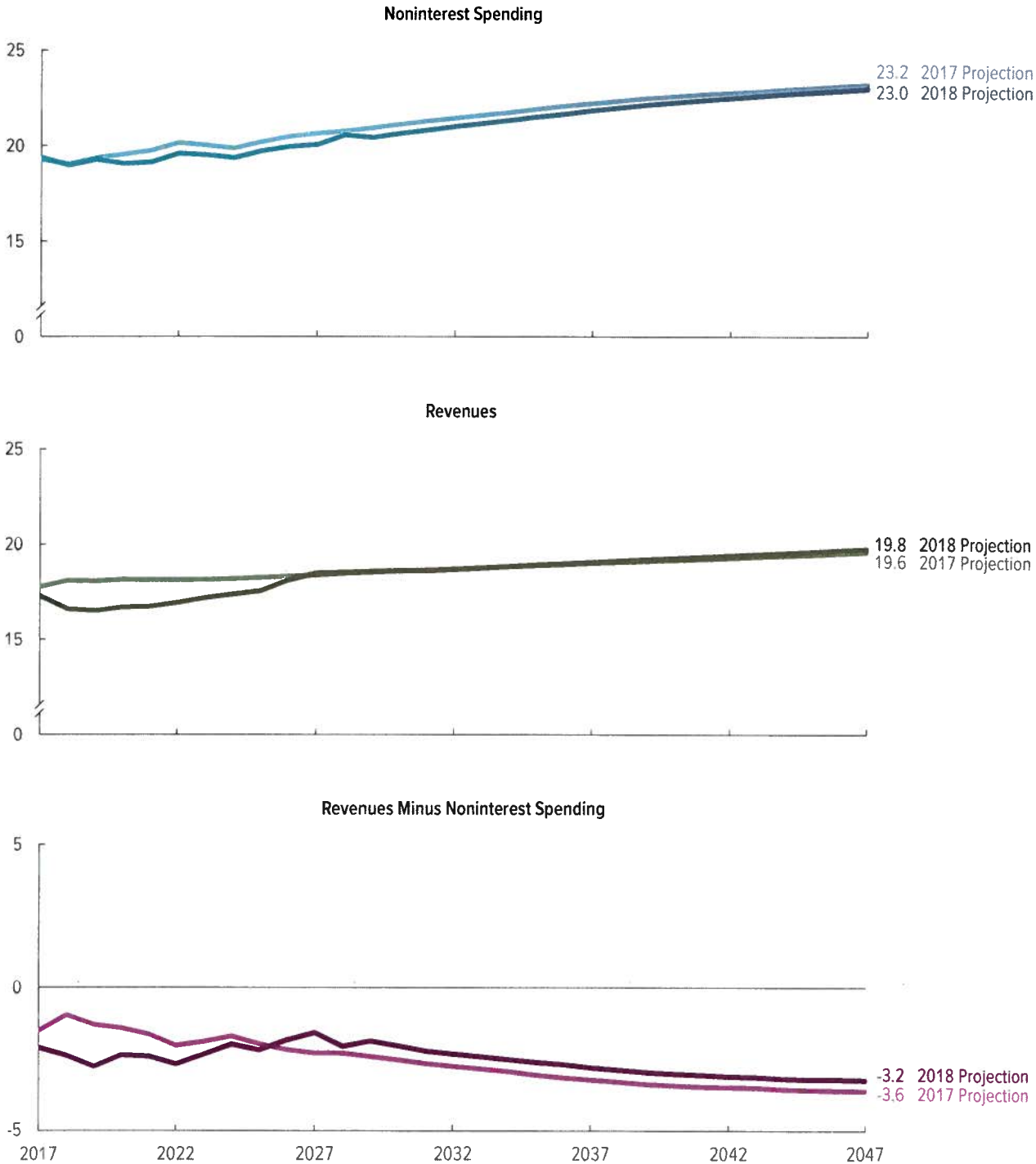
on Disability Insurance (DI), which is a component of the Social Security program, and lower projections of average wage rates through 2020. The DI projections are lower mainly because caseloads have been lower than anticipated over the past year, which led CBO to reduce its projection of the number of DI beneficiaries initially as well as projections of growth in the number of beneficiaries over the next several years. The projections of average wage rates are lower because of downward revisions to historical data. (Lower projections of average wage rates reduce projected spending on Social Security benefits because the earnings on which initial benefits are

based are indexed to growth in average wages. When that growth is lower, the resulting benefits are also lower.)

Major Federal Health Care Spending. CBO's current long-term projection of federal spending for the major health care programs, measured as a percentage of GDP, is lower than last year's projection. Spending for Medicare net of offsetting receipts (that is, premiums paid by beneficiaries) is now projected to equal 2.9 percent of GDP in 2018 (0.1 percent of GDP lower than projected last year) and then to rise steadily to 5.8 percent of GDP in 2047 (0.3 percent of GDP

Figure B-2.
Comparison of CBO's 2017 and 2018 Projections of Spending and Revenues in the Extended Baseline

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

lower than projected last year). That reduction occurred mostly because CBO has increased its projections of GDP. Outlays for Medicaid and the Children's Health Insurance Program (CHIP), combined with spending to subsidize health insurance purchased through the marketplaces established under the Affordable Care Act and related spending, are projected to be lower than previously anticipated through the late 2030s and higher thereafter, totaling 3.3 percent of GDP in 2047, slightly larger than the sum projected last year. That larger ultimate amount results from faster growth of Medicaid spending in the second and third decades than projected a year ago.

To project long-term spending for the major health care programs, CBO used the same method that it used last year. Namely, it combined estimates of the number of people who are projected to receive benefits from those programs with fairly mechanical estimates of the growth of spending per beneficiary (adjusted to account for demographic changes to the beneficiaries in each program). CBO has estimated such growth by combining projected growth in potential GDP per person with projected excess cost growth for each program.⁵ (From 2018 to 2027, potential GDP per person is projected to grow at an average rate of about 3.4 percent per year, up from the 3.1 percent estimated last year; from 2018 to 2047, the average growth rate is projected to be about 3.4 percent per year, roughly the same as last year's estimate.)

For each category of spending except CHIP, through 2028, CBO used the rate of excess cost growth implicit in the agency's 10-year baseline projections.⁶ For 2029, the rate equals the average rate from 2024 to 2028 (the last 5 years of the 10-year baseline projections). The rates of excess cost growth for Medicare, Medicaid, and private health insurance therefore all differ in 2029. After 2029, the rate for each category moves linearly, by the same fraction of a percentage point each year, from that category-specific rate to a rate of 1.0 percent in 2048.⁷

5. Potential GDP is the maximum sustainable output of the economy. Excess cost growth is the extent to which health care costs per person, after being adjusted for demographic changes, grow faster than potential GDP per person.
6. Spending for CHIP is projected differently. Outlays for CHIP are projected to be a constant percentage of GDP after 2028.
7. For more information, see Congressional Budget Office, *The 2016 Long-Term Budget Outlook* (July 2016), Chapter 3, www.cbo.gov/publication/51580.

For Medicare, the average annual rate of excess cost growth implicit in CBO's baseline projections is about 1.0 percent from 2019 through 2028, slightly lower than last year's average of 1.1 percent from 2018 through 2027. The rate of excess cost growth for 2029 is 1.2 percent, the same as last year's estimate. Excess cost growth is projected to average 1.1 percent over the full projection period, the same as last year's estimate but lower than the historical average of 1.3 percent from 1985 to 2016.

For Medicaid, the average annual rate of excess cost growth implicit in CBO's baseline projections for the federal share of such spending is 1.5 percent from 2019 through 2028, up by 0.3 percentage points from last year's estimate for 2018 through 2027. The rate for 2029 is 1.6 percent, up by 0.9 percentage points from last year's estimate. That change was the cumulative result of many updates that CBO made to its baseline projections for legislative, economic, and technical reasons—with the largest contribution resulting from an update to CBO's methods that made the agency's estimates of growth in costs per beneficiary more consistent throughout the 10-year projection period. The rate of excess cost growth is projected to average 1.4 percent over the full projection period, which is 0.4 percentage points higher than last year's estimate and 0.4 percentage points higher than the 1985–2016 average.

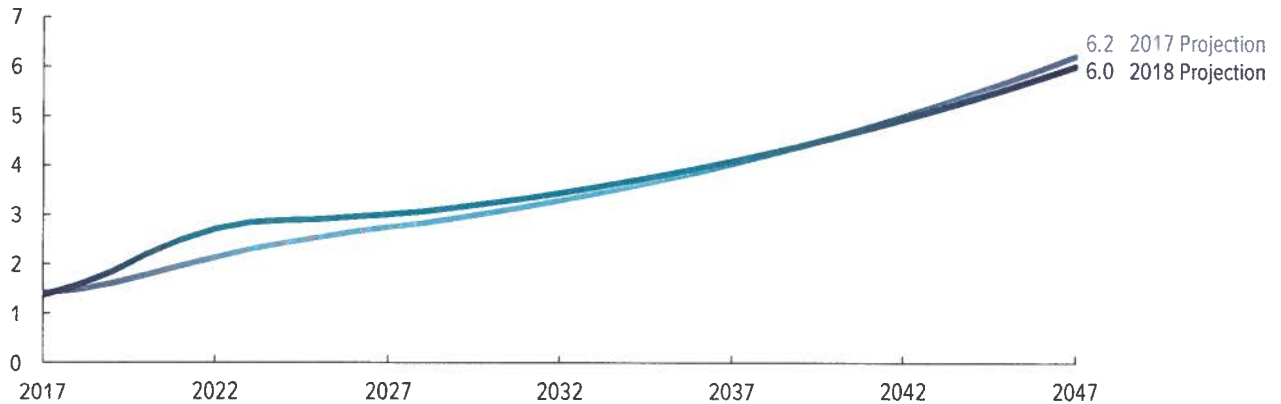
For private health insurance premiums, which CBO uses as an input to its calculation of marketplace subsidies, the average annual rate of excess cost growth implicit in CBO's baseline projections is about 2 percent from 2019 through 2028 (the same as last year's estimate). The rate for 2029 is also about 2 percent, which again is similar to last year's estimate. The rate is projected to decline from 2029 to 2048 and to be lower in 2048 than its historical average.

Other Noninterest Spending. Over the next 10 years, other noninterest spending—total federal spending on everything other than Social Security, the major federal health care programs, and net interest—is projected to be slightly higher as a percentage of GDP than projected last year and roughly the same thereafter. For most of the next 10 years, the part of that spending that is mandatory is slightly lower than previously projected as a share of GDP because CBO has revised its projections of GDP upward. But that decline is more than offset

Figure B-3.

Comparison of CBO's 2017 and 2018 Projections of Net Spending for Interest in the Extended Baseline

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

by an increase in projected discretionary spending. That increase stems primarily from legislative changes that increased funding for defense and nondefense spending limited by caps on annual appropriations and that increased funding for emergency requirements.

Beyond 2028, other noninterest spending as a share of GDP is projected to be about the same as projected last year, reflecting lower projections of other mandatory spending offset by higher projections of discretionary spending. The projections of other mandatory spending as a percentage of GDP are lower because such spending is projected to be slightly smaller after 10 years, and CBO projects that it will decline in relation to GDP at the same rate by which it is projected to fall between 2023 and 2028, although at a slightly slower rate than last year. The projections of discretionary spending are higher than they were last year because such spending, at the end of the 10-year period, is now higher than it was in last year's projections. (CBO assumes that discretionary spending will remain roughly constant as a share of GDP after 2028.)

Interest Costs

In CBO's projections, net interest costs are higher through the late 2030s and lower thereafter than they were a year ago (see Figure B-3). Those costs are higher initially because the agency's projections of interest rates and federal debt held by the public are likewise higher.

After the late 2030s, smaller deficits and eventually smaller debt result in lower net interest costs. For the coming decade, net interest costs are projected to average 2.5 percent of GDP; last year, the projected average was 2.2 percent. They are projected to equal 3.1 percent of GDP by 2028 (up 0.2 percentage points from last year's projections) and 6.0 percent of GDP by 2047 (down 0.2 percentage points from last year's projections).

Changes in Projected Revenues

In CBO's current projections, revenues measured as a percentage of GDP are lower through 2026 than they were in last year's projections, similar for most of the following two decades, and then slightly higher by the end of the 30-year projection period. They equal 16.6 percent of GDP this year (which is 1.5 percentage points lower than last year's estimate) and then rise to 18.1 percent of GDP in 2026 (which is 0.2 percentage points lower than last year's estimate). Those downward revisions are the result of recently enacted legislative changes and increased projections of GDP. In particular, provisions of the 2017 tax act temporarily reduced individual income tax rates, nearly doubled the standard deduction, modified or eliminated certain deductions or exemptions, and temporarily allowed firms to deduct the cost of capital investments immediately.

Measured as a share of GDP, revenues in 2027 are projected to be largely the same as in last year's projections,

following the scheduled expiration of most of the individual income tax provisions of the 2017 tax act.⁸ From 2027 to 2038, projected revenues average 18.8 percent of GDP (which is equal to last year's estimate). But by 2047, revenues are projected to be 0.2 percentage points higher than projected a year ago. That is because individual income taxes are now projected to grow more quickly through most of the projection period as a result of a change in the price index that is used to adjust tax brackets.⁹ As a consequence, income will be pushed into higher tax brackets more quickly than projected a year ago.

Those effects are partially offset by a change in CBO's projection of the distribution of earnings. Specifically, the agency has lowered its projection of the share of earnings that will accrue to the highest earners over the next 30 years (though it still projects that earnings will grow more quickly for higher-income people than for others). The change causes a smaller share of income to be taxed at higher rates under the individual income tax, reducing receipts from that tax source. That decrease is largely offset by an increase in projected payroll taxes, as a smaller increase in the share of income accruing to the highest earners results in more earnings falling below the maximum amount subject to Social Security payroll taxes.

Changes in Social Security's Projected Finances

A common measure of the sustainability of a program that has a trust fund and a dedicated revenue source is its estimated actuarial balance over a given period—that is, the sum of the present value of projected tax revenues and the current trust fund balance minus the sum of the present value of projected outlays and a year's worth of

benefits at the end of the period.¹⁰ When that balance is negative, it is a deficit.

The 75-year actuarial deficit currently projected for Social Security is 1.5 percent of GDP (which is the same as estimated last year) or 4.4 percent of taxable payroll (which is smaller than last year's estimate of 4.5 percent). That reduction resulted from a number of factors. CBO has lowered its projection of nominal outlays for Social Security over the next 10 years and increased its projection of the share of earnings that are subject to Social Security payroll taxes over the next 30 years.¹¹ In addition, the agency projects slightly higher interest rates over the 75-year period. Partially offsetting those effects is an increase in the actuarial deficit that results each year from incorporating another year of relatively large deficits into the analysis.¹²

Another commonly used measure of Social Security's sustainability is its trust funds' date of exhaustion. CBO projects that if current law did not change, the Disability Insurance Trust Fund would be exhausted in fiscal year 2025, the Old-Age and Survivors Insurance (OASI) Trust Fund would be exhausted in calendar year 2032, and the combined trust funds would be exhausted in calendar year 2031. Last year, those exhaustion dates were two years earlier for the DI trust fund, one year earlier for the OASI trust fund, and one year earlier for the combined funds. The changes in those dates are the result of the lower projections of nominal outlays from the trust funds, the higher projections of interest rates on balances in the trust funds, and higher projections of revenues into the trust funds. The revenues are projected to be higher because of increased projections of earnings relative to last year and because the projected share of earnings that is subject to Social Security payroll taxes has grown.

8. For more information about the effects of the 2017 tax act, see *The Budget and Economic Outlook: 2018 to 2028* (April 2018), Appendix B, www.cbo.gov/publication/53651, and Box 1 on page 26 of this report.

9. Beginning in 2018, the measure used for adjusting most parameters of the tax system will be changed from the standard consumer price index for urban consumers (CPI-U) to the chained CPI-U. The chained CPI-U tends to grow more slowly than the standard CPI-U because it uses a formula that better accounts for households' tendency to substitute similar goods and services for each other when relative prices change and because, unlike the CPI-U, it is little affected by statistical bias related to the sample sizes that the Bureau of Labor Statistics uses in computing each index. Historically, inflation as measured by the chained CPI-U has been 0.25 percentage points lower, on average, than inflation as measured by the standard CPI-U. CBO's projections reflect that average difference between the two measures.

10. A present value is a single number that expresses a flow of past and future income or payments in terms of an equivalent lump sum received or paid at a specific time. The value depends on the rate of interest, known as the discount rate, used to translate past and future cash flows into current dollars at that time. To account for the difference between the trust fund's current balance and the balance desired for the end of the period, the balance at the beginning is added to projected tax revenues, and an additional year of costs at the end of the period is added to projected outlays.

11. Beyond the 30-year projection period, the share of earnings subject to Social Security payroll taxes is held constant in CBO's projections.

12. The actuarial deficit includes the trust fund balance at the beginning of the projection period, and that balance represents the present value of all income and costs to the trust funds since their beginning.



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About This Document

This volume is one of a series of reports on the state of the budget and the economy that the Congressional Budget Office issues each year. In keeping with CBO's mandate to provide objective, impartial analysis, the report makes no recommendations.

Overseen by Julie Topoleski and prepared with guidance from Devrim Demirel, Ed Harris, John Kitchen, John McClelland, David Weaver, and Jeff Werling, the report represents the work of many analysts at CBO. Stephanie Hugie Barello wrote the main text of the report. Aaron Betz, Edward Gamber, and Charles Pineles-Mark wrote Appendix A. Ricci Reber wrote Appendix B. Susan Beyer, Barry Blom, Tom Bradley, Sebastien Gay, Lori Housman, Jamease Kowalczyk, Sarah Masi, Eamon Molloy, Sam Papenfuss, Lisa Ramirez-Branum, Dan Ready, Robert Stewart, and Rebecca Yip contributed to the analysis.

Michael Simpson developed the long-term budget simulations with assistance from Stephanie Hugie Barello, Marina Miller, Xiaotong Niu, and Charles Pineles-Mark. Aaron Betz and Robert Shackleton prepared the macroeconomic simulations. Ed Harris coordinated the revenue simulations, which were prepared by Paul Burnham, Shannon Mok, Cecilia Pastrone, Kurt Seibert, and Joshua Shakin. Justin Lee, Claire Sleigh, and Adam Staveski fact-checked the report. The report builds on the 10-year projections of the economy and budget that CBO released earlier this year, which reflected the contributions of more than 100 people at the agency.

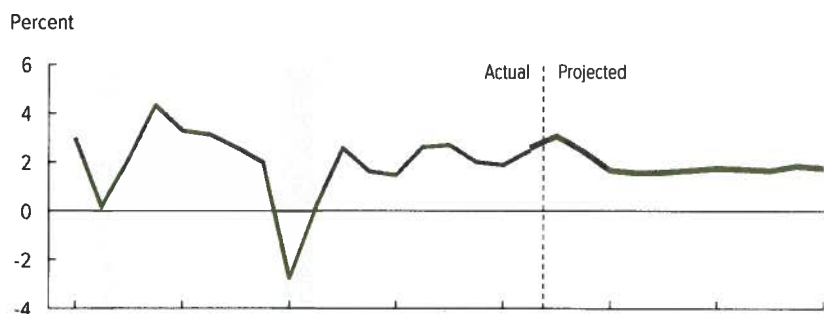
Wendy Edelberg, Mark Hadley, Jeffrey Kling, and Robert Sunshine reviewed the report. Christine Bogusz, Benjamin Plotinsky, and Elizabeth Schwinn edited it, and Casey Labrack prepared it for publication. Charles Pineles-Mark and Ricci Reber prepared the supplemental data.

The report is available on CBO's website (www.cbo.gov/publication/53919).

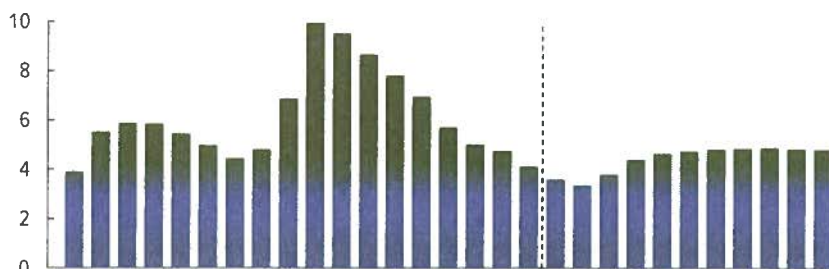
Keith Hall
Director
June 2018

CBO

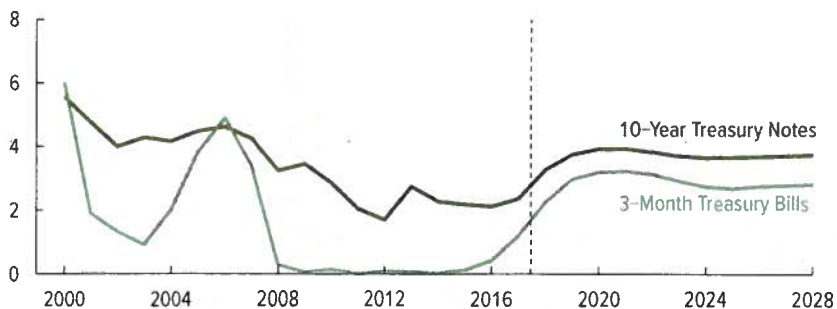
An Update to the Economic Outlook: 2018 to 2028



In CBO's forecast, **real GDP growth**, spurred by fiscal stimulus, is 3.1 percent this year and 2.4 percent next year.



That growth creates excess demand in the economy and lowers the **unemployment rate** through next year.



Interest rates rise over the next few years as the Federal Reserve raises the federal funds rate to reduce excess demand and the associated inflationary pressures.

AUGUST 2018

Notes

Unless otherwise indicated, all years referred to in describing the economic outlook are calendar years.

Numbers in the text, tables, and figures may not add up to totals because of rounding. Also, some values are expressed as fractions to indicate numbers rounded to amounts greater than a tenth of a percentage point.

Some figures in this report have vertical bars that indicate the duration of recessions. (A recession extends from the peak of a business cycle to its trough.)

The Congressional Budget Office completed its current economic forecast in early July 2018. Unless otherwise indicated, projections of economic variables presented in this report are based on information that was available at that time. Thus, the projections do not reflect the comprehensive update to the national income and product accounts that the Bureau of Economic Analysis released on July 27. However, the actual and historical data shown in figures describing the economic forecast are based on that update, as are the discussions of recent economic events in the text.

This report does not include updates to CBO's baseline budget projections. The agency's most recent budget projections were released in May as part of *An Analysis of the President's 2019 Budget* (www.cbo.gov/publication/53884).

Supplemental data for this analysis are available on CBO's website (www.cbo.gov/publication/54318), as is a glossary of common budgetary and economic terms (www.cbo.gov/publication/42904).



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An Update to the Economic Outlook: 2018 to 2028

Summary

The Congressional Budget Office regularly updates its economic forecast to incorporate changes in the agency's methodology and to ensure that the projections reflect recent economic developments and current law. This report presents the agency's latest economic forecast, which includes the following key projections of real (inflation-adjusted) gross domestic product (GDP) and other factors:

- **In 2018, real GDP is projected to grow by 3.1 percent.** That is about 0.6 percentage points faster than the pace of its growth in 2017 (see Figure 1). The pickup in growth is largely the result of increases in government spending, reductions in taxes, and faster growth in private investment. For the second half of the year, CBO expects real GDP to grow at roughly the same average pace as it grew in the first half of the year, which would represent a moderation following the 4.1 percent annualized growth of GDP reported in the second quarter. Such moderation occurs because several factors that boosted second-quarter growth—including a rebound in the growth of consumer spending from a weak first quarter and a surge in agricultural exports—are expected to either fade or reverse. In 2019, the pace of GDP growth slows to 2.4 percent in the agency's forecast as growth in business investment and government purchases slows.
- **Growth of actual output is expected to outpace the growth of its maximum sustainable amount through the rest of 2018 and 2019, creating excess demand in the economy.** Although that growth in actual output leads to lower unemployment rates and higher income in CBO's forecast, it also creates demand for goods, services, and labor that exceeds the economy's long-run capacity to supply them.
- **Excess demand will put upward pressure on prices, wages, and interest rates over the next few years.** In CBO's forecast, the growth of actual output slows markedly after 2019 because higher interest rates,

along with the slower growth of federal outlays projected under current law, restrain demand. As the excess demand dissipates, the unemployment rate rises and inflation and interest rates fall. By 2022, the excess demand in the economy disappears.

- **From 2023 to 2028, real GDP is projected to grow by about 1.7 percent each year.** That is slightly slower than potential output grows, on average. (Potential output is CBO's estimate of the maximum sustainable output of the economy.) The difference between actual and potential output arises because of a slight, temporary slowdown in the growth of actual output from 2025 to 2026, when some of the major provisions of the 2017 tax act (Public Law 115-97, originally called the Tax Cuts and Jobs Act) are scheduled to expire.

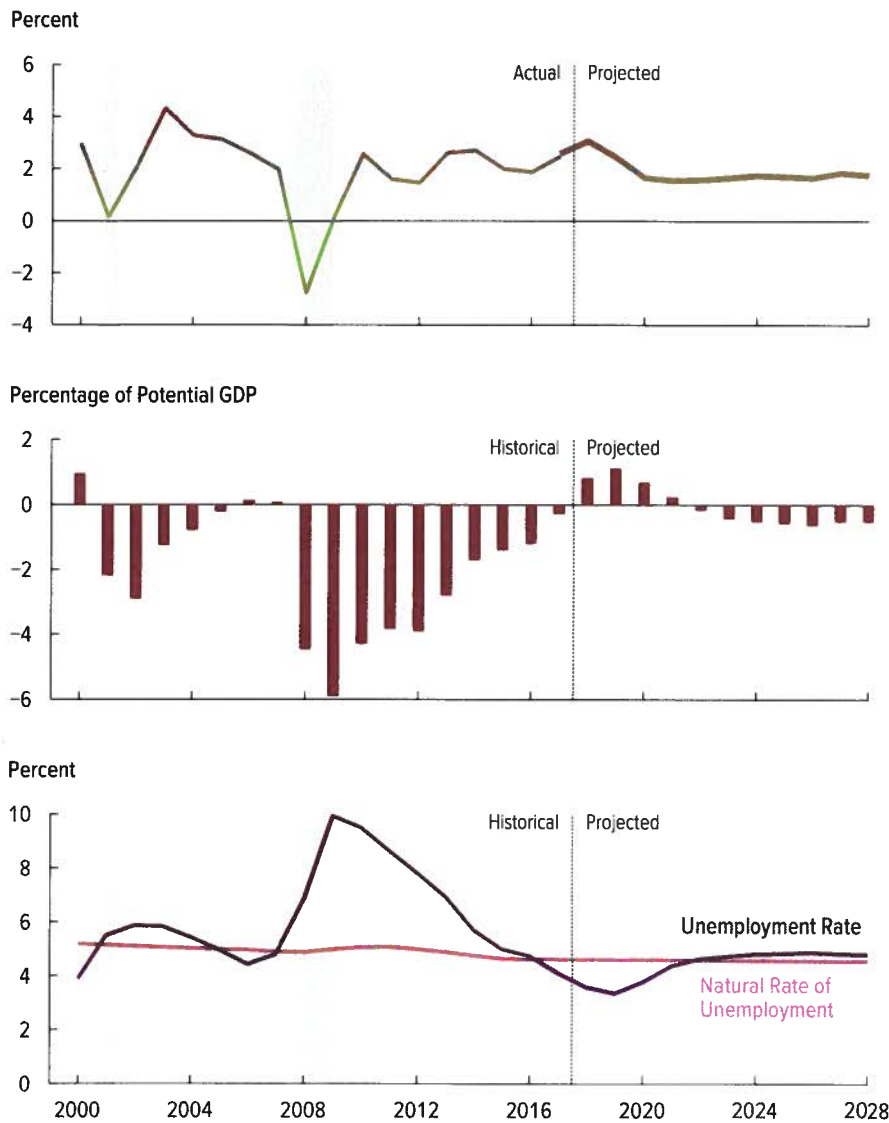
Although CBO's current economic forecast does not differ significantly from the forecast that the agency published in April 2018, it nevertheless incorporates several important changes. For example, the current forecast is based on the path for discretionary spending specified in CBO's most recent budget projections, which were released in May.¹ That path includes less fiscal stimulus over the next few years than did the path that the agency used when it previously projected economic growth. That revision slightly lowered the agency's projections of output growth and interest rates in the near term. Additionally, CBO has further revised downward its forecast of interest rates over much of the projection period on the basis of information about financial markets and the projections of other forecasters. It has also revised slightly upward its near-term inflation forecast on the basis of recent data on consumer prices.

The economic projections in this report do not differ significantly from those of other forecasters. They are slightly stronger in the near term than most of the

1. See Congressional Budget Office, *An Analysis of the President's 2019 Budget* (May 2018), Table 1, www.cbo.gov/publication/53884.

Figure 1.

CBO's Economic Forecast at a Glance



In CBO's forecast, **real GDP growth**, spurred by fiscal stimulus, is 3.1 percent this year and 2.4 percent next year.

That growth creates excess demand in the economy, which pushes GDP above potential GDP, resulting in a positive **output gap** and . . .

. . . lowering the **unemployment rate** below CBO's estimate of the **natural rate of unemployment**.

Sources: Congressional Budget Office; Bureau of Economic Analysis; Bureau of Labor Statistics; Federal Reserve.

Real values are nominal values that have been adjusted to remove the effects of changes in prices. Real GDP growth is measured from the fourth quarter of one calendar year to the fourth quarter of the next.

Excess demand exists when the demand for goods and services exceeds the amount that the economy can sustainably supply. Potential GDP is CBO's estimate of the maximum sustainable output of the economy. The output gap is the difference between GDP and potential GDP, expressed as a percentage of potential GDP. A positive value indicates that GDP exceeds potential GDP; a negative value indicates that GDP falls short of potential GDP. Values for the output gap are for the fourth quarter of each year.

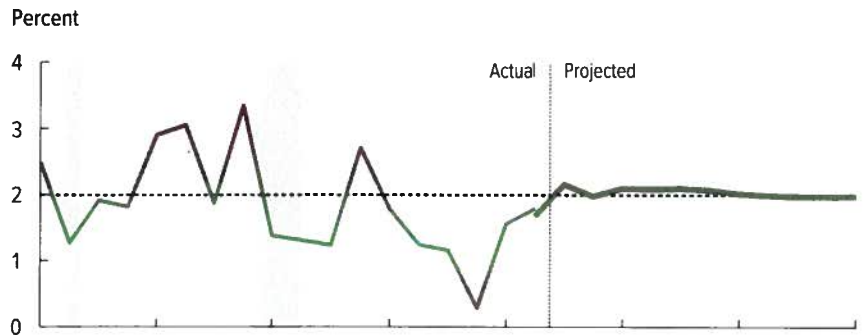
The unemployment rate is the number of jobless people who are available for and actively seeking work, expressed as a percentage of the labor force. The natural unemployment rate is the rate arising from all sources except fluctuations in the overall demand for goods and services. For the unemployment rate and the natural unemployment rate, data are fourth-quarter values.

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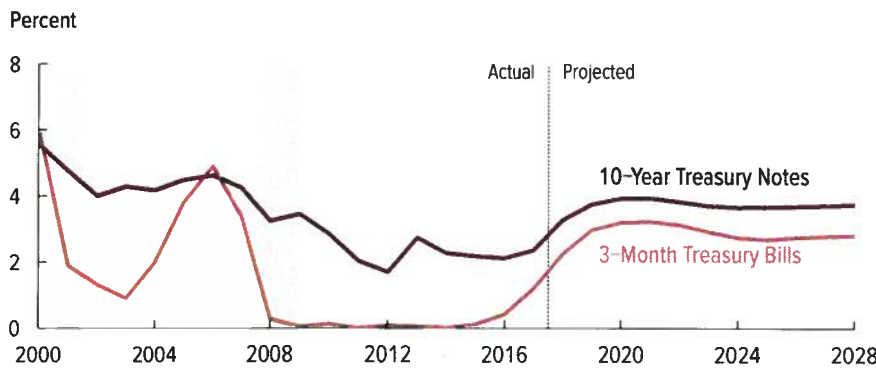
Figure 1.

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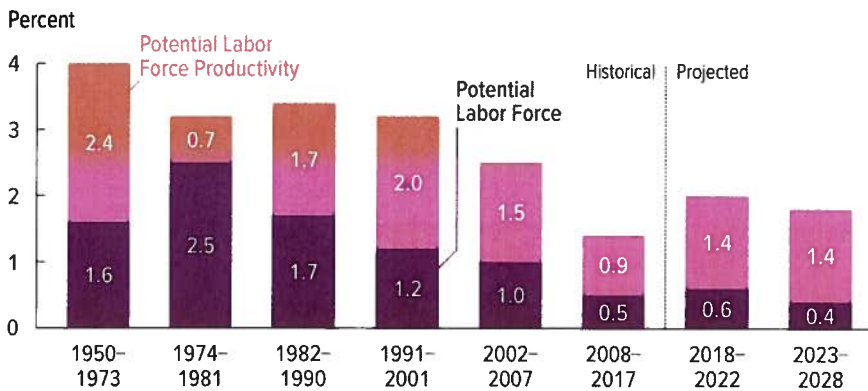
CBO's Economic Forecast at a Glance



Excess demand also pushes the rate of **inflation in consumer prices** above the Federal Reserve's target of 2 percent this year.



Interest rates rise over the next few years as the Federal Reserve raises the federal funds rate to reduce excess demand and the associated inflationary pressures.



The projected **growth of real potential GDP** (the sum of the growth of the potential labor force and the growth of potential labor force productivity) is faster than it has been since 2008 but slower than it was in previous periods.

Inflation in consumer prices is based on the price index for personal consumption expenditures and is measured from the fourth quarter of one calendar year to the fourth quarter of the next.

The federal funds rate is the interest rate that financial institutions charge each other for overnight loans of their monetary reserves. The data for interest rates are fourth-quarter values.

Potential labor force productivity is the ratio of real potential GDP to the potential labor force, which is CBO's estimate of the size of the labor force arising from all sources except fluctuations in the overall demand for goods and services. The bars show compound annual growth rates over the specified periods calculated using calendar year data.

Values for real GDP growth and inflation in consumer prices from 2000 to 2017 (the thin line in the top panel on each page) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis released on July 27, 2018. Values from 2017 to 2028 (the thick lines) reflect the data available when the projections were made in early July.

GDP = gross domestic product.

forecasts by the private-sector economists who contributed to the July 2018 *Blue Chip Economic Indicators*. They are somewhat stronger in the near term and weaker in the long term than the latest forecasts by Federal Reserve officials.

The Economic Effects of Recent Changes in Fiscal Policy

Three pieces of legislation enacted in the past year significantly affected fiscal policy and CBO's economic outlook.² The first, the 2017 tax act, permanently lowered the top corporate income tax rate to 21 percent and changed the way that business's foreign income is taxed. The act also lowered individual income tax rates and broadened the base of income subject to tax through 2025. In addition, it included various provisions that affect how businesses and individuals calculate their taxable income. The two other pieces of legislation affected spending. The Bipartisan Budget Act of 2018 (P.L. 115-123) increased the caps on discretionary funding for 2018 and 2019 and provided substantial funding for emergency assistance. The Consolidated Appropriations Act, 2018 (P.L. 115-141), provided appropriations for all discretionary accounts for 2018.

As noted in its April 2018 report, CBO estimates that the 2017 tax act will have appreciable effects on the U.S. economy. The lower marginal income tax rates that will be in place for much of the projection period will encourage workers to work more hours and businesses to increase investment in productive capital, thereby raising potential output over the entire projection period.³ In addition, higher disposable (after-tax) income for households will, in CBO's estimate, boost the demand for goods and services, raising actual GDP slightly above its potential and generating some inflationary pressure during the first half of the projection period. In the meantime, those effects will be partly offset by the larger deficits created by the tax act. In later years, as many

temporary provisions of the 2017 tax act phase out or expire, growth of actual GDP falls below the growth of potential output in CBO's projections, but the law's total effect on the levels of investment, employment, and output remains positive through 2028. That occurs because the positive effect on incentives from the provisions that were still in place would more than offset the negative effect of greater federal borrowing.

The increases in federal outlays in the next few years that result from the Bipartisan Budget Act of 2018 and the Consolidated Appropriations Act, 2018, will boost aggregate demand and increase the federal budget deficit in the near term, CBO estimates. In CBO's projections, the additional federal spending adds to the existing excess demand and inflationary pressures. Higher interest rates and greater federal borrowing ultimately "crowd out" some private activities, particularly private investment, in later years.

CBO's economic projections incorporate the federal deficits in the agency's adjusted baseline budget projections that were published in May. Each year's federal budget deficit is linked to the flows of domestic saving and investment, as well as to the current-account balance (see Box 1).⁴ In CBO's current economic projections, federal deficits and current-account deficits rise for the next few years, reflecting increases in borrowing by the federal government and increases in lending to the United States by foreign investors.

The Economic Outlook for 2018 to 2022

CBO expects real GDP to grow by 3.1 percent this year, by 2.4 percent in 2019, and by an average of 1.6 percent each year from 2020 through 2022 (see Table 1).⁵ Most

2. In the agency's previous economic forecast, published in April 2018, CBO presented its estimate of the effects of those fiscal policy changes on the U.S. economy over the next 11 years. See Congressional Budget Office, *The Budget and Economic Outlook: 2018 to 2028* (April 2018), www.cbo.gov/publication/53651.

3. A marginal tax rate is the percentage of an additional dollar of income that is paid in taxes. For details on how CBO projects potential output, see Robert Shackleton, *Estimating and Projecting Potential Output Using CBO's Forecasting Growth Model*, Working Paper 2018-03 (Congressional Budget Office, February 2018), www.cbo.gov/publication/53558.

4. The current-account balance is a summary measure of a country's current transactions with the rest of the world, including net exports, net unilateral transfers, and net income from abroad.

5. CBO completed its economic projections in early July, and therefore the projections do not reflect the benchmark revision of the national income and product accounts (NIPAs), which the Bureau of Economic Analysis (BEA) released on July 27. This year's comprehensive update included several important changes to NIPA definitions and methods that affected historical data from 1929 through the first quarter of 2018. In addition, BEA also released an early estimate for the second quarter of 2018. CBO's initial review of those recently released data suggested that they would not substantially change the projections of GDP growth and of other key economic variables that are presented in this report. That said, CBO's estimate of potential GDP also depends on the revised information on capital stock, which has not yet been released.

Table 1.

CBO's Economic Projections for Calendar Years 2018 to 2028

	Actual, 2017	2018	2019	2020	Annual Average	
					2021– 2022	2023– 2028
Percentage Change From Fourth Quarter to Fourth Quarter						
Gross Domestic Product						
Real ^a	2.6	3.1	2.4	1.7	1.6	1.7
Nominal	4.5	5.1	4.7	3.9	3.8	3.9
Inflation						
PCE price index	1.7	2.2	2.0	2.1	2.1	2.0
Core PCE price index ^b	1.5	2.1	2.1	2.2	2.1	2.0
Consumer price index ^c	2.1	2.5	2.3	2.5	2.5	2.4
Core consumer price index ^b	1.7	2.3	2.6	2.7	2.5	2.4
GDP price index	1.9	2.0	2.2	2.2	2.2	2.1
Employment Cost Index ^d	2.8	3.4	3.6	3.6	3.4	3.1
Fourth-Quarter Level (Percent)						
Unemployment Rate	4.1	3.6	3.4	3.8	4.6 ^e	4.8 ^f
Percentage Change From Year to Year						
Gross Domestic Product						
Real ^a	2.3	3.0	2.8	1.9	1.6	1.7
Nominal	4.1	5.1	4.9	4.1	3.8	3.9
Inflation						
PCE price index	1.7	2.1	2.0	2.1	2.1	2.0
Core PCE price index ^b	1.5	1.9	2.1	2.2	2.1	2.0
Consumer price index ^c	2.1	2.5	2.2	2.5	2.5	2.4
Core consumer price index ^b	1.8	2.2	2.4	2.7	2.6	2.4
GDP price index	1.8	2.0	2.1	2.2	2.2	2.1
Employment Cost Index ^d	2.6	3.1	3.4	3.6	3.5	3.1
Annual Average						
Unemployment Rate (Percent)	4.4	3.8	3.4	3.6	4.4	4.8
Payroll Employment (Monthly change, in thousands) ^g	181	210	178	63	26	57
Interest Rates (Percent)						
Three-month Treasury bills	0.9	1.9	2.8	3.1	3.2	2.8
Ten-year Treasury notes	2.3	3.0	3.6	3.9	3.9	3.7
Tax Bases (Percentage of GDP)						
Wages and salaries	43.1	43.1	43.4	43.7	43.9	44.1
Domestic corporate profits ^h	8.9	9.5	9.6	9.1	8.6	8.3

Sources: Congressional Budget Office; Bureau of Economic Analysis; Bureau of Labor Statistics; Federal Reserve.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Real values are nominal values that have been adjusted to remove the effects of changes in prices.

b. Excludes prices for food and energy.

c. The consumer price index for all urban consumers.

d. The employment cost index for wages and salaries of workers in private industry.

e. Value for the fourth quarter of 2022.

f. Value for the fourth quarter of 2028.

g. The average monthly change, calculated by dividing by 12 the change in payroll employment from the fourth quarter of one calendar year to the fourth quarter of the next.

h. Consists of domestic profits, adjusted to remove distortions in depreciation allowances caused by tax rules and to exclude the effect of inflation on the value of inventories.

Box 1.

Federal Deficits, Domestic Saving and Investment, and the Current-Account Balance

Federal deficits reduce national saving (total saving by households, businesses, and governments) and the amount of funds available for private investment in productive capital.¹ The reduction in the amount of funds depends on the magnitude of the resulting increases in private saving and in net inflows of foreign capital (foreign purchases of U.S. assets minus U.S. purchases of foreign assets). Because federal deficits are linked to domestic and foreign saving and investment flows, the Congressional Budget Office considers the interactions among the following three saving-investment balances when it assesses current fiscal and financial conditions and prepares its economic forecast (see the figure):

- *The federal budget balance*—the difference between the federal government’s revenues and outlays. When the federal government runs a budget deficit (that is, when outlays exceed revenues), the Treasury borrows money by selling securities to the general public.² The funds for such borrowing come from two principal sources: nonfederal domestic entities (businesses, nonprofit organizations, households, and state and local governments) and foreign investors (government and private). For example, when federal borrowing rises, U.S. businesses may increase their lending to the U.S. government by reallocating their saving from private assets (and thus decreasing investment in capital) or by increasing their rate of saving. In addition, foreign governments and private investors may increase their investment in U.S. debt. The United States’ federal budget balance has been in deficit since the 1970s except for in fiscal years 1998 to 2001.
- *The current-account balance*—the difference between exports and imports (net exports, a measure often referred to as the trade balance), plus net international income (the difference between the income earned by U.S. residents from foreign sources and the income earned by foreign

individuals from U.S. sources) and net international transfers (the difference between the inflows and outflows of transfer payments, such as remittances and foreign aid). A country’s current-account balance reflects the amount of its domestic saving (by both private- and public-sector entities) compared with the amount of investment in that country. When a country runs a current-account deficit, it borrows from abroad to finance an excess of investment over saving. In other words, a country with a current-account deficit is a net borrower on international markets, whereas a country with a current-account surplus is a net lender. The U.S. current account has been in deficit since the early 1980s. Though current-account deficits are a sign of strong foreign demand for investments in the United States, large and sustained current-account deficits have often served as a prelude to disruptive economic and financial events.

- *The nonfederal domestic balance*—the difference between saving and investment of nonfederal domestic entities, which is calculated here by subtracting the federal budget balance from the current-account balance. In most years, this balance is positive, indicating that, taken together, nonfederal domestic entities are net lenders. When the balance is negative, as it was from 1997 through 2008, the current-account deficit exceeds the federal deficit and the nonfederal domestic entities are net borrowers.

The interactions among those balances reflect, and help to illustrate, underlying developments in the economy over time. For example, the unique pattern of the balances in the early years of this century reflected increased borrowing by households and businesses that later proved to be unsustainable. Starting with the recession of 2001 and continuing through the expansion of the early- to mid-2000s, both the federal government and the U.S. domestic private sector were net borrowers. That borrowing was funded by foreign investors, and current-account deficits climbed throughout the period, reaching an all-time high of 6.0 percent of gross domestic product (GDP) in fiscal year 2006. Following the onset of the 2007–2009 recession, the private sector drastically cut its borrowing while the federal government’s borrowing dramatically increased. On net, the current-account deficit fell to 3.0 percent of GDP at the trough of the recession in 2009. From 2009 through 2017, current-account deficits averaged 2.7 percent of GDP.

1. See Jonathan Huntley, *The Long-Run Effects of Federal Budget Deficits on National Saving and Private Domestic Investment*, Working Paper 2014-02 (Congressional Budget Office, February 2014), www.cbo.gov/publication/45140.

2. The federal government also borrows for other purposes, including to adjust cash balances and to manage the cash flows associated with federal credit programs such as student loans. This analysis is concerned only with borrowing used to fund the federal deficit.

Box 1.

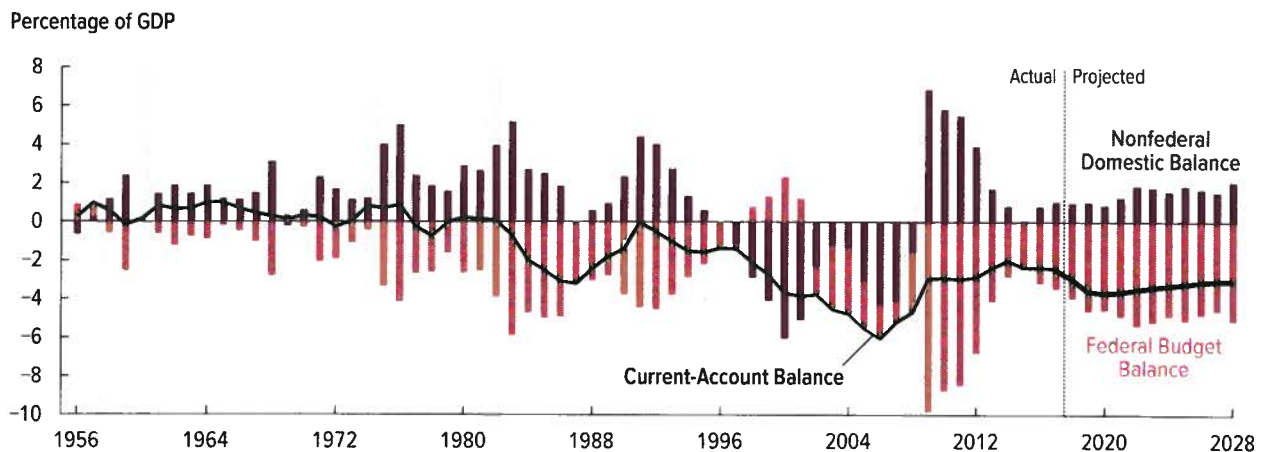
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Federal Deficits, Domestic Saving and Investment, and the Current-Account Balance

The pattern of the three balances shifts somewhat over time in CBO's projections. In the near term, the current-account deficit rises from 2.4 percent of GDP in 2017 to 3.6 percent in 2021, driven mainly by growing federal budget deficits. In the baseline budget projections that CBO published in May, federal deficits as a share of GDP rise by roughly 1.4 percentage points between 2017 and 2021, from 3.5 percent to 4.9 percent. The nonfederal domestic balance stays roughly stable over that same period, averaging 1.0 percent of GDP each year.

From 2022 to 2028 in CBO's forecast, the current-account deficit shrinks steadily to 3.0 percent of GDP. That occurs despite the fact that federal budget deficits remain elevated, hovering around 5 percent of GDP. The current-account deficit shrinks primarily because of projected slower growth in domestic investment relative to saving, which is reflected in an increasing nonfederal domestic balance. In CBO's projections, that balance rises from 1.3 percent of GDP in 2021 to 2.1 percent in 2028.

Saving-Investment Balances



Sources: Congressional Budget Office; Bureau of Economic Analysis; Office of Management and Budget.

The federal budget balance is the difference between revenues and spending. The current-account balance is the difference between exports and imports (net exports), plus net international income (the difference between the income earned by U.S. residents from foreign sources and the income earned by foreign individuals from U.S. sources) and net international transfers (the difference between the inflows and outflows of transfer payments, such as remittances and foreign aid). The nonfederal domestic balance is the current-account balance minus the federal budget balance. It is primarily the difference between saving and investment in the private sector and the state and local government sector.

Values for 2000 to 2017 reflect revisions to the national income and product accounts that the Bureau of Economic Analysis released on July 27, 2018. Values for 2018 to 2028 (and for the current-account balance, those for 2017 to 2028 represented by the thick line) reflect the data available when the projections were made in early July.

All years are fiscal years.

GDP = gross domestic product.

of the growth of output in CBO's forecast over the next few years is driven by consumer spending and, to a lesser extent, business investment. In addition, in 2018 and 2019, demand from the federal, state, and local governments, on net, adds to the growth of output while net exports (exports minus imports) generally offset those contributions to GDP growth.

Output growth is expected to exceed the growth of potential output over the next two years and create excess demand for goods and services in the economy. Since the 2007–2009 recession ended, real GDP has grown faster than real potential GDP, on average, reducing the gap between the two. By early this year, output was about equal to potential output, and the output gap—the difference between actual and potential GDP, expressed as a percentage of potential GDP—was closed. As the growth of actual output continues to outpace the growth of potential output through most of next year, the output gap widens in CBO's forecast until late 2019 and remains positive until late 2022.

That excess demand for goods and services leads to a heightened demand for workers in CBO's forecast, which lowers the unemployment rate below the agency's estimate of the natural rate of unemployment. (The natural rate of unemployment is the rate arising from all sources other than fluctuations in the overall demand for goods and services, including normal job turnover and the structural mismatch between the skills that jobs require and those that job seekers possess.)

The excess demand also puts upward pressure on interest rates and price and wage inflation. Those higher interest rates, along with slower growth in federal spending, in turn restrain growth in later years.

Actual Output (Gross Domestic Product)

Economic growth was uneven but fairly robust, on average, in the first half of 2018. Real GDP growth started at an annual rate of just 2.2 percent in the first quarter of this year before accelerating to 4.1 percent in the second quarter. However, the strong second-quarter growth was boosted in large part by a rebound in the growth of consumer spending after recent weakness and a surge in agricultural exports, neither of which will, in CBO's view, persist in the second half of this year.

Despite the volatility in the rate of GDP growth in the first and second quarters of the year, CBO expects the

momentum underlying that growth to largely continue into the second half of the year before slowing gradually in subsequent years. CBO estimates that real GDP will grow by a total of 3.1 percent in 2018 (up from 2.5 percent in 2017) and by 2.4 percent in 2019. Growth of real GDP is expected to slow further after 2019, averaging 1.6 percent per year between 2020 and 2022.

In CBO's projections, the above-trend growth of real GDP in 2018 mainly reflects robust growth in business fixed investment (businesses' purchases of equipment, nonresidential structures, and intellectual property products) and purchases by the federal, state, and local governments. Consumer spending, which accounts for more than two-thirds of economic output, grows relatively modestly, on average, in 2018 before picking up momentum in 2019 and supporting real output growth when growth in investment and government purchases slows down. By contrast, net exports make a slightly negative contribution to GDP growth in both 2018 (despite a surge in the second quarter) and 2019. From 2020 to 2022, GDP growth in CBO's forecast reflects primarily continued moderate growth in consumer spending but also growth in business and residential investment; total government purchases and net exports have little impact on GDP growth after 2019.

Consumer Spending. CBO expects that consumer spending on goods and services will grow by 2.1 percent in 2018—less than the 2.7 percent that such spending grew in 2017—and by 2.9 percent in 2019; such growth is projected to account for less than half of the growth of real GDP in 2018 but more than three-quarters of output growth in 2019. In CBO's projections, growth in consumer spending stems mainly from growth in disposable income, which reflects a combination of rising labor and capital income in the strong economy and lower income tax rates under current law. However, the agency anticipates that many households will respond to the smaller personal tax liabilities gradually and that the effect of increases in after-tax income will therefore not fully translate into more consumer spending until 2019. (Consumer spending did grow robustly in the second quarter of 2018; however, in CBO's view, that growth mainly reflects a rebound from a very weak first quarter.) Rising gasoline prices, which dampen the gains in real income, also restrain the growth in real consumption in 2018. In the meantime, household financial conditions, which include continuing gains in household wealth and increasing access to credit, are expected to be broadly

supportive of consumer spending. Annual growth in consumer spending slows in the agency's projections to 2.2 percent in 2020 and to less than 2.0 percent in 2021 and 2022 as interest rates and prices rise and growth in income slows.

Business Investment. In CBO's projections, the pace of growth in real business investment accelerates significantly in 2018, reaching 8.9 percent (substantially faster than the 5.3 percent growth recorded in 2017) and accounting for nearly one-third of the growth of real GDP for the year. That robust growth in business investment reflects several factors: increased incentives for investment under the 2017 tax act, the accelerated growth of output that stems in part from the tax act and the legislated increases in federal outlays, a rebound from the unusually weak inventory investment in late 2017 and the most recent quarter, greater incentives for oil exploration and development created by higher oil prices, and the easing of existing regulations coupled with a slowdown in new regulatory activity.

Growth in business investment gradually slows between 2019 and 2022 in the agency's forecast, as most of the effect of those forces on growth wanes. In particular, although provisions in the tax act increase incentives in those years, they do so by less each year than they do in 2018 and thus lead to less growth in investment. In addition, GDP growth slows in those years as the fiscal stimulus provided by federal spending diminishes and as an increasing supply of oil puts downward pressure on oil prices and slows investment in oil drilling.

Residential Investment. CBO anticipates that growth in real residential investment will remain subdued in 2018 before picking up considerably in subsequent years. In the agency's projections, real residential investment grows by 2.5 percent in 2018 (down from 3.8 percent in 2017), by 5.0 percent in 2019, and by an average of 4.1 percent each year from 2020 to 2022. The slow growth in residential investment in 2018 is attributable in part to the 2017 tax act, which included provisions that reduced the incentives to own homes. The subsequent pickup in growth from 2019 through 2022, by contrast, mainly reflects the continued strength in household formation and the continued easing of mortgage lending standards.

Government Purchases. If current laws governing federal taxes and spending generally remained in place, total

real purchases of goods and services by the federal, state, and local governments would increase by 2.8 percent in 2018 and by only 0.5 percent in 2019, CBO estimates. From 2020 to 2022, the growth of total real government spending is projected to largely disappear because of a sharp decrease in federal purchases that is only partially offset by an increase in state and local purchases. Specifically, in CBO's projections, real purchases by the federal government fall by an average rate of roughly 1 percent per year from 2020 to 2022, reflecting the existing caps on discretionary funding in place through fiscal year 2021 and the assumption that funding will grow at the rate of inflation thereafter. By contrast, real purchases by state and local governments are projected to increase at an average annual rate of 0.9 percent in those years as both demand for their services and the tax revenue that funds those services rise.

Net Exports. After declining for several years, real net exports are projected to continue to decline through 2019 before stabilizing over the following three years. In CBO's current economic projections, real imports grow faster, on average, than real exports in both 2018 and 2019. (Although there was a surge in agricultural exports in the second quarter of 2018, it will, in the agency's view, be reversed over the second half of the year.) Over the next two years, strong growth in demand in the United States will, in CBO's estimate, boost the growth rate of real imports of goods and services. The growth of real exports, by contrast, is projected to slow in those years because the agency expects that the economies of the United States' trading partners will experience a moderate slowdown in GDP growth. The exchange value of the dollar is expected to remain relatively stable through 2019.⁶ As a result of those factors, in CBO's projections, real net exports decline and subtract 0.2 percentage points from GDP growth in both 2018 and 2019.⁷ After 2019, the effects of those factors diminish, slowing the decline in real net exports. From 2020

6. CBO's measure of the exchange value of the dollar is an export-weighted average of the exchange rates between the dollar and the currencies of the United States' leading trading partners.

7. Although a decline in net exports appears to make negative contributions to GDP growth in 2018 and 2019 in CBO's projections, that does not imply that an increase in imports will reduce GDP growth. Increases in imports reduce the contribution of net exports to GDP growth, but they also contribute positively to other components of GDP growth because imports are included in domestic demand as part of consumption, investment, and government spending.

through 2022, real net exports have little impact on GDP growth.

Recent changes to tariffs made by the United States and its trading partners are expected to reduce trade between them. Since the beginning of this year, the United States has raised tariffs on imported solar panels, washing machines, steel, and aluminum. In July, it imposed additional tariffs on about \$34 billion worth of Chinese goods, including semiconductors, plastics, and capital equipment.⁸ In response to higher U.S. import tariffs, Canada, the European Union, and China have raised tariffs on U.S. exports. By making imported goods more costly in the United States and U.S. exports more costly abroad, those changes in tariffs are expected to reduce the volume of both real imports and exports.

Because the new tariffs that were in place when CBO completed its forecast in early July affected goods that accounted for less than 1.5 percent of the total value of U.S. trade, they had a very limited effect on CBO's economic projections. However, trade policy has already changed since early July and may continue to evolve, so the effects of new tariffs on the economy—and thus on CBO's future projections—may become more substantial. (See the discussion of trade policy changes in the section "Some Uncertainties in the Economic Outlook" below.)

Potential Output and the Output Gap

CBO's near-term forecast reflects not only anticipated fluctuations in aggregate demand but also projected changes in aggregate supply. In the agency's projections, potential output—a measure of the economy's fundamental capacity to supply goods and services—grows by an average of 2.0 percent per year from 2018 to 2022, roughly 0.6 percentage points more than it has grown annually, on average, since 2008. Although the growth of potential output is determined primarily by long-run forces (such as trends in population growth, the labor force participation rate, and productivity), the acceleration of that growth over the next few years in CBO's forecast is also driven by the 2017 tax act, which according to the agency's estimates, boosts investment (and therefore labor productivity) and labor supply and thus increases the economy's underlying productive capacity.⁹

CBO's forecasts of the growth of actual and potential GDP imply that there will be excess demand for goods and services in the economy throughout most of the 2018–2022 period. In the agency's projections, the output gap widens from zero in the first half of 2018 to a cyclical peak of 1.1 percent of potential GDP by late 2019. At the same time, as a result of the 2017 tax act, potential output growth accelerates, slowing the increase in the output gap, mitigating the inflationary pressure associated with that gap, and facilitating growth in actual output. Still, starting in 2020, higher prices and interest rates, along with the decline in federal outlays projected under current law, slow actual GDP growth in relation to the growth of potential GDP, steadily narrowing and ultimately eliminating the output gap by 2022.

The Labor Market

The labor market continued to improve in the first half of 2018. The primary measure that CBO uses to assess the degree of slack in the labor market—the employment gap, or the difference between employment and potential employment—indicated that there was no slack remaining by early 2018.¹⁰ That elimination of slack in the labor market occurred because of a drop in the unemployment rate (which has been below its estimated natural rate since early 2017) and the continued stability of the labor force participation rate (which is approaching its potential level though it remains below it). The potential labor force participation rate is itself trending down in the long run because of demographic pressures.

In CBO's projections, the growth of aggregate demand increases demand for labor beyond its maximum sustainable level, leading to a positive employment gap for the rest of 2018 and through 2022. The employment gap peaks at roughly 2 million people in late 2019. (Employment as a percentage of the population also peaks in 2019, at about 60.7 percent.) In terms of monthly job growth, payroll employment in the non-farm business sector grows by roughly 210,000 jobs per month in 2018 (up from 181,000 jobs per month in 2017) and by approximately 180,000 jobs per month in 2019. From 2020 to 2022, slower economic growth slows employment growth sharply—to an average of

8. CBO's economic projections were completed before those tariffs on Chinese goods took effect.

9. The labor force participation rate is the percentage of people in the civilian noninstitutionalized population who are at least 16 years old and are either working or seeking work.

10. Potential employment is CBO's estimate of the number of people who would be employed if the unemployment rate equaled its natural rate and if the labor force participation rate equaled its potential rate.

38,000 jobs per month—reducing the employment gap to about half a million workers by the end of 2022.¹¹

CBO's projections of employment relative to its potential also reflect the agency's forecasts of changes in the rate of unemployment and the size of the labor force, which partly offset each other over the 2018–2022 period. In CBO's projections, the unemployment rate continues to drop, from about 4 percent in the first half of 2018 to about 3.3 percent by the end of 2019, and then rises gradually and approaches its natural rate of 4.6 percent over the 2020–2022 period as economic growth slows. The labor force, in contrast, approaches (but remains below) its estimated potential size in 2018 and 2019 and slightly exceeds its potential between 2020 and 2022. The labor force participation rate, which has hovered around 62.8 percent since 2014, remains relatively stable at that rate from 2018 through 2022 as excess demand for labor offsets demographic pressures, which continue to push down the rate's long-run trend.

The increased demand for labor and competition for workers boost the growth of hourly labor compensation (a measure that includes benefits as well as wages and salaries) in CBO's projections. The increase in labor compensation, in turn, dampens demand for labor, slowing employment growth and, by 2020, diminishing the positive employment gap. In particular, the annual growth rate of the employment cost index (ECI) for wages and salaries of workers in private industries rises from 2.8 percent in 2017 to 3.4 percent in 2018 and peaks at 3.6 percent in 2020 before slowing to 3.3 percent by 2022 and further to 3.0 percent in the long term.

Inflation

Inflation picked up considerably in late 2017 and the first half of 2018, after slowing markedly during much of 2017. The annual growth rate of the price index for personal consumption expenditures (PCE)—the measure that the Federal Reserve uses to set its long-run inflation target—reached and surpassed the target rate of 2.0 percent in the middle of 2018. Excluding food and energy prices, which tend to be volatile, the core PCE price index is also approaching 2.0 percent annual growth. Energy, health care, and shelter are among the categories with the greatest price increases. In addition,

newly imposed tariffs have led to higher prices for certain imported goods; however, the effect on the prices of consumer goods—and thus the effect of those tariffs on domestic inflation—has so far been very limited.

Over the next few years, excess demand is expected to put more upward pressure on inflation. The Federal Reserve is expected to tighten monetary policy and, aided by market participants' stable expectations of future inflation, prevent inflation from substantially exceeding its long-run target. In CBO's projections, growth in the core PCE price index is 2.1 percent (measured from the fourth quarter of one year to the fourth quarter of the next) in both 2018 and 2019 and peaks at 2.2 percent in 2020. The core consumer price index for urban households (CPI-U), which historically tends to grow faster than the PCE price index, rises by 2.3 percent in 2018, by 2.6 percent in 2019, and by 2.7 percent in 2020. As interest rates rise and the excess demand in the economy dissipates, inflation slows after 2020 in CBO's forecast. By 2022, the core PCE inflation falls back to 2.1 percent, and the core CPI-U inflation, to 2.5 percent.

Interest Rates

CBO expects the Federal Reserve to continue to raise the target range for the federal funds rate (the interest rate that financial institutions charge each other for overnight loans of their monetary reserves) over the next few years in response to excess demand and increased inflationary pressures in the economy. In CBO's projections, the federal funds rate rises from 1.6 percent in the first half of 2018 to 2.8 percent in 2019 before reaching 3.4 percent, where it remains from 2020 to 2022.

The interest rates on 3-month Treasury bills and 10-year Treasury notes are also expected to be substantially higher over the next few years. The interest rate on 3-month Treasury bills rises from 1.9 percent in the first half of 2018 to 2.8 percent in 2019 and to 3.2 percent by 2021; it falls slightly after 2021 as excess demand for goods and services diminishes and inflationary pressure dissipates. Similarly, the interest rate on 10-year Treasury notes rises from 2.8 percent in the first half of 2018 to a cyclical peak of nearly 4.0 percent in 2021 before falling slightly, back to 3.8 percent, by the end of 2022.

CBO's projections of long-term interest rates over the next few years reflect several factors. First, they incorporate the anticipated movements of short-term interest

11. In CBO's projections, payroll employment is slightly higher in 2020, reflecting an anticipated increase in the number of temporary workers hired by the Census Bureau to conduct the decennial census.

rates. Second, an increase in the term premium (the premium paid to bondholders for the extra risk associated with holding longer-term bonds), which has historically moved up and down with the business cycle, is projected to contribute to some of the rise in long-term rates. Finally, CBO expects the ongoing reduction in the Federal Reserve's portfolio of long-term assets to provide a slight boost to long-term interest rates. Despite that boost, however, CBO expects the difference between long-term and short-term rates (referred to as the yield curve slope) to flatten through 2022.

The Economic Outlook for 2023 to 2028

CBO's projections of GDP, unemployment, inflation, and interest rates for 2023 through 2028 are based mainly on the agency's projections of underlying trends in key variables, such as the size of the labor force, the number of hours worked, capital investment, and productivity. In addition, CBO considers the effects of current-law federal tax and spending policies on those variables. In some cases, policies might be projected not only to affect potential output but also to influence aggregate demand for goods and services, causing the gap between actual output and potential output to change. For example, the expiration of the temporary provisions in the 2017 tax act—including the expiration of most of the provisions affecting individual income taxes at the end of 2025 and the phaseout of bonus depreciation by the end of 2026—is projected to slow real GDP growth and to lower real GDP in relation to its potential in those years.

Potential Output and Actual Output

In CBO's projections, potential output grows at an average rate of 1.8 percent per year over the 2023–2028 period, driven by average annual growth of the potential labor force of about 0.4 percent and growth of potential labor force productivity of about 1.4 percent (see Table 2 and the bottom panel of Figure 1 on page 3). Compared with growth of potential output of about 2.0 percent per year from 2018 to 2022, the annual rate of 1.8 percent in later years represents a slowdown of about 0.2 percentage points, which results primarily from a projected slowdown in growth of the potential labor force.

The slowdown in growth is expected to be particularly marked in the nonfarm business sector, which produces roughly three-quarters of GDP. Annual growth of that sector's potential output slows by about a quarter of

a percentage point in CBO's projections, from over 2.3 percent in the 2018–2022 period to less than 2.1 percent in the 2023–2028 period. The contribution of potential hours worked falls from 0.4 percentage points per year, on average, in the first half of the 11-year projection period to 0.2 percentage points in the second half, while the contribution of capital services drops from an average of 0.9 percentage points per year to 0.7 percentage points. The slowdown in the growth of potential hours and in the growth of capital services reflects changes in underlying long-run trends—such as the aging of the population and other demographic shifts—as well as the expiration of temporary tax provisions under current law.

Also, the annual rate of growth of potential total factor productivity (the average real output per unit of combined labor and capital services) in the nonfarm business sector accelerates in CBO's forecast from 1.0 percent in the first half of the projection period to 1.2 percent in the second half, somewhat offsetting the slowdown in the growth of factor inputs. That acceleration plays a key role in keeping growth in potential aggregate output substantially faster than the 1.5 percent average annual growth that is estimated to have occurred since 2007, when the last recession began.

Typically in CBO's forecasts, the growth of actual output and growth of potential output converge in the second half of the 11-year period, and the level of actual output stays about 0.5 percent below that of potential output, which is consistent with the long-term relationship between the two measures. In the agency's current forecast, however, that convergence is interrupted because the expiration of the temporary provisions of the 2017 tax act is expected not only to affect the growth of potential output by reducing the supply of labor but also to result in a temporary slowdown in the growth of aggregate demand. As a consequence, in the current forecast, the gap between actual output and potential output widens temporarily before returning to its long-term average in the final years of the projection period. The average growth rate of actual output during the 2023–2028 period is 1.7 percent per year, slightly less than the 1.8 percent average annual growth projected for potential output in those years.

The Labor Market

In CBO's projections, the unemployment rate settles by 2024 near its anticipated long-term rate of 4.8 percent

Table 2.

Key Inputs in CBO's Projections of Real Potential GDP

Percent

	Average Annual Growth						Projected Average Annual Growth			
	1950–1973	1974–1981	1982–1990	1991–2001	2002–2007	2008–2017	Total, 1950–2017	2018–2022	2023–2028	Total, 2018–2028
Overall Economy										
Real Potential GDP	4.0	3.2	3.4	3.2	2.5	1.5	3.2	2.0	1.8	1.9
Potential Labor Force	1.6	2.5	1.7	1.2	1.0	0.5	1.4	0.6	0.4	0.5
Potential Labor Force Productivity ^a	2.4	0.7	1.7	2.0	1.5	0.9	1.7	1.4	1.4	1.4
Nonfarm Business Sector										
Real Potential Output	4.1	3.5	3.6	3.6	2.7	1.7	3.4	2.3	2.1	2.2
Potential Hours Worked	1.4	2.3	1.8	1.2	0.4	0.5	1.3	0.6	0.3	0.4
Capital Services	3.7	3.8	3.6	3.8	2.9	1.8	3.4	2.5	2.0	2.3
Potential Total Factor Productivity	1.9	0.9	1.2	1.4	1.6	0.7	1.4	1.0	1.2	1.1
Contributions to the Growth of Real Potential Output (Percentage points)										
Potential hours worked	1.0	1.6	1.2	0.8	0.2	0.3	0.9	0.4	0.2	0.3
Capital input	1.1	1.2	1.2	1.3	1.0	0.7	1.1	0.9	0.7	0.8
Potential total factor productivity	1.9	0.9	1.2	1.4	1.6	0.7	1.4	1.0	1.2	1.1
Total Contributions	4.0	3.7	3.6	3.5	2.8	1.7	3.4	2.3	2.1	2.2
Potential Labor Productivity ^b	2.6	1.2	1.8	2.3	2.4	1.2	2.1	1.7	1.8	1.8

Source: Congressional Budget Office.

Real values are nominal values that have been adjusted to remove the effects of changes in prices. Potential GDP is CBO's estimate of the maximum sustainable output of the economy.

The table shows compound annual growth rates over the specified periods calculated using calendar year data.

GDP = gross domestic product.

a. The ratio of potential GDP to the potential labor force.

b. The ratio of potential output to potential hours worked in the nonfarm business sector.

(roughly one-quarter of a percentage point higher than the natural rate of 4.6 percent), though it rises again temporarily in 2026.¹² That temporary increase occurs because the slowdown in the growth of aggregate demand caused by the expiration of certain provisions of the 2017 tax act also slows the growth in the demand for labor. Meanwhile, the natural rate of unemployment declines very slowly (by a total of less than 0.1 percentage point) over the next decade. That slow decline reflects a shift in the composition of the workforce toward older workers, who tend to have lower rates of unemployment

(when they participate in the labor force), and away from less educated workers, who tend to have higher rates.

The labor force participation rate follows its long-term trend in CBO's projections and falls to about 61 percent by 2028, roughly 1¼ percentage points below the agency's projection for 2023. The agency attributes most of the decline from 2023 to 2028 to demographic changes—in particular, to the aging of the population (because older people tend to participate less in the labor force than younger people do).

12. The projected gap of 0.25 percentage points between the unemployment rate and the natural rate of unemployment corresponds to the projected output gap of -0.5 percent of potential output.

Growth in employment and wages is projected to moderate during the 2023–2028 period. In particular, nonfarm payroll employment increases by an average

of 57,000 jobs per month during those years in CBO's forecast. Measured as a percentage of the population, employment falls from 59.4 percent in 2023 to 58.1 percent in 2028, reflecting the decline in the potential labor force participation rate. Real compensation per hour in the nonfarm business sector, a measure of labor costs that is a useful gauge of longer-term trends, grows at an average annual rate of 1.8 percent from 2023 to 2028—the same rate at which labor force productivity in that sector grows in the agency's projections, reflecting the close historical relationship between the two measures.

Inflation

In the agency's forecast, the overall and the core PCE price indexes increase by an average of 2.0 percent per year between 2023 and 2028, which is the Federal Reserve's long-run target for inflation. The overall and core CPI-U average 2.4 percent growth annually in those years. Those projections reflect the historical difference between the growth rates of the PCE price indexes and the CPI-U.

Interest Rates

Over the 2023–2028 period, the interest rate on 3-month Treasury bills averages 2.8 percent in CBO's projections, and the rate on 10-year Treasury notes, 3.7 percent. The federal funds rate averages 3.1 percent. Throughout that period, federal debt rises in relation to GDP and exerts upward pressure on short- and long-term interest rates. Long-term interest rates rise gradually in relation to short-term rates as the term premium slowly increases over the latter half of the 11-year projection period. Various factors—continued growth in foreign economies and inflation that remains at or near the Federal Reserve's target rate—are expected to make holding Treasury securities as a hedge against adverse foreign and domestic economic outcomes less desirable for investors than it has been in recent years, thereby putting upward pressure on the term premium.

In general, CBO expects interest rates to rise slightly over the 2023–2028 period. However, short-term interest rates decline slightly from mid-2025 through 2026 in the agency's forecast because the Federal Reserve is expected to reduce the federal funds rate in response to the slower growth stemming from the expiration of the individual income tax cuts.

Projections of Income for 2018 to 2028

Projections of federal revenues depend to a large extent on the amount of the various types of income earned in the production of GDP. The most important types of income for projecting federal revenues are wages and salaries and domestic profits, which are taxed at higher rates than the other types. Together, those two types of income have averaged just over 52 percent of GDP since the early 1980s, though their combined share of GDP has fluctuated with the business cycle. As of early 2018, the sum of those two types of income amounted to just under 52 percent of GDP. In the near term, as the economy operates above its potential, that percentage rises in CBO's forecast, but it settles back to its post-1983 average in later years.

In CBO's projections, wages and salaries grow more quickly than other kinds of income throughout the 11-year projection period, increasing from 43.2 percent of GDP in 2018 to 44.1 percent in 2028. That rise in wages and salaries relative to other types of income contributes to a partial rebound in labor's share of GDP, which grows from 57.1 percent in 2018 to 58.7 percent in 2028. Despite that projected growth, CBO does not expect labor's share of GDP to reach its 1980–2000 average of more than 59.2 percent because some of the long-run factors that have depressed labor's share since the early 2000s are likely to persist in the coming decade. One such factor is globalization, which has increased businesses' incentives to move the production of labor-intensive goods and services to countries with labor costs that are lower than those in the United States. Another factor is technological change, which may have increased returns to capital more than it has increased returns to labor.

The share of domestic corporate profits falls from 9.5 percent of GDP in 2018 to an average of 8.3 percent over the 2023–2028 period in CBO's forecast. The decline in the share of domestic profits mostly reflects the rise in wages and salaries, but it also reflects an increase in corporate interest payments that results from rising interest rates.

Some Uncertainties in the Economic Outlook

Economic projections are inherently uncertain. But CBO's current economic projections are especially so because they incorporate several estimates of the effects of recent changes to fiscal policy, which are themselves very uncertain. In addition, recently implemented

changes to trade policies, and proposals calling for further changes, compound the uncertainty surrounding the current economic outlook.

Trade Policy Changes

A sizable uncertainty in the U.S. trade and inflation forecast stems from recent changes to U.S. import tariffs and the retaliation of the country's key trading partners. The renegotiation of the North American Free Trade Agreement (NAFTA) similarly presents the risk that trade and inflation may differ from CBO's projections.

When CBO completed its current economic forecast, the agency estimated that the macroeconomic consequences of the U.S. tariffs and foreign retaliatory tariffs that had been implemented at that time would be small. The prices of washing machines, solar panels, steel, and aluminum increased in the first half of 2018, but those products account for only a small share of consumer and business purchases. Higher tariffs on more imported products, however, could add to inflationary pressure, which in turn would not only reduce the purchasing power of domestic income but also increase the costs of domestic production, making the prices of U.S. exports less competitive in international markets. In addition, retaliatory tariffs on U.S. exports are likely to reduce the profitability of U.S. businesses whose products are targeted by those tariffs.

Furthermore, heightened uncertainty about trade policy could discourage businesses from making capital investments that they might otherwise have made, because changes to trade policy affect price competitiveness in foreign markets as well as the costs associated with global supply chains. Recent volatility in equity markets might indicate that such uncertainty is already taking a toll on the value of U.S. businesses.

Other Uncertainties

In addition to trade policy changes, many other developments could cause economic growth and other variables to differ from CBO's projections over the near term. For example, if energy prices continued to rise or stayed elevated longer than CBO has projected, inflation would be higher, and if the adverse effects on consumer spending outweighed increased investment in oil drilling, GDP would be lower. Moreover, the 2017 tax act significantly altered the incentives to work and invest, but it is very difficult to anticipate how households and businesses will respond to those changes in incentives. If consumer

spending and capital investment increased more (or less) than CBO projects, GDP growth and interest rates would be correspondingly higher (or lower).¹³

Over the long term, policy changes and other factors add to the uncertainty surrounding CBO's projections. The scheduled expiration of the provisions of the 2017 tax act is one source of uncertainty stemming from policy changes during the projection period. Individuals and businesses could respond more (or less) to those changes than CBO anticipates, resulting in lower (or higher) economic growth in the later years of the projection period than the agency forecasts. In addition to fiscal policy changes, recent shifts by the Administration and the Congress toward deregulation and a looser regulatory environment are expected to boost investment, and thus potential output, modestly in the long term. If the effects of deregulation are greater than CBO expects, however, then economic growth could be stronger than the agency projects.

Long-run economic growth could also be higher or lower than CBO projects for reasons unrelated to policy. If, for example, the labor force grew more quickly than expected—say, because older workers chose to stay in the labor force longer than anticipated—the economy could grow considerably more quickly than it does in CBO's projections. By contrast, if the growth of labor productivity did not rise above its average postrecession pace, as it does in CBO's projections, the growth of GDP might be weaker than the agency projects.

Over the next five or six years, CBO projects, the economy will experience a cycle in which the output gap widens and then narrows through slower (though still positive) economic growth—but there is nonetheless a risk of recession. Some analysts have noted with concern the recent narrowing of the spread between long-term and short-term interest rates. In the past, the economy has often entered a recession shortly after that spread has turned negative (a development referred to as an inversion of the yield curve). Consistent with the agency's forecast of slower economic growth in 2019 and 2020, that spread continues to close but does not invert in

13. For example, one provision of the 2017 tax act provided companies a greater incentive to fund their defined benefit pension plans in 2018. CBO estimates that the effect of that provision on interest rates will be small. If, however, the effect is larger than expected, interest rates will be higher than CBO projects in 2019 and beyond.

CBO's projections. There is some risk, however, that the yield curve could invert. Although an inversion would not by itself cause an economic downturn to occur, it could signal that market participants see an increased risk of recession.

Quantifying the Uncertainty in CBO's Projections

To quantify the degree of uncertainty in its projections for the next five years, CBO analyzed its past forecasts of the growth of real GDP and of inflation.¹⁴ On the basis of that analysis, CBO estimates that there is approximately a two-thirds chance that the average annual growth rate of real GDP will be between 0.8 percent and 3.5 percent over the next five years. That is, there is a two-thirds chance that real GDP in 2022 will be within roughly \$1.3 trillion of the projected value of \$19 trillion (in 2009 dollars). Similarly, errors in CBO's past forecasts of inflation (as measured by the CPI-U) suggest that there is a roughly two-thirds chance that the average annual rate of inflation will fall between 1.8 percent and 3.0 percent over the next five years.

Changes in CBO's Economic Projections Since April

CBO's current economic projections differ in some important respects from those published in April 2018 (see Table 3).¹⁵ In particular, CBO's current economic forecast incorporates the path for discretionary spending that was specified in the agency's most recent baseline budget projections, which were published as part of *An Analysis of the President's 2019 Budget*.¹⁶ Federal spending in those projections is somewhat lower than the amounts used as the basis of CBO's previous economic projections, which were made before details of the Consolidated Appropriations Act, 2018, were finalized. Adjusting those economic projections to account for CBO's current spending projections resulted in reduced projections of real federal purchases and, in turn, lower projections of real GDP: By 2020, the level of real GDP in CBO's current forecast is about 0.3 percent lower than it was in the previous forecast because of that adjustment.

14. See Congressional Budget Office, *CBO's Economic Forecasting Record: 2017 Update* (October 2017), www.cbo.gov/publication/53090.

15. See Congressional Budget Office, *The Budget and Economic Outlook: 2018 to 2028* (April 2018), www.cbo.gov/publication/53651.

16. See Congressional Budget Office, *An Analysis of the President's 2019 Budget* (May 2018), www.cbo.gov/publication/53884.

CBO has also revised down its projections of interest rates over the 2018–2023 period since April. It has done so to incorporate the current path for discretionary spending as well as to account for new data on financial markets and information from other forecasters. Incorporating the baseline spending path resulted in slower output growth in the near term and a slightly smaller output gap. On the basis of that smaller output gap, CBO projects that the Federal Reserve would raise interest rates fewer times and that short-term interest rates would be lower. Projections of long-term rates, which are based in part on the expected path of short-term rates, were revised down as well. Aligning those projections with CBO's current discretionary spending path also resulted in smaller deficits than those incorporated in CBO's previous economic forecast. More national saving stemming from those smaller deficits also contributed to the downward revision in interest rates. In addition, data on financial markets and information from other forecasters point to a more muted increase in interest rates in the near term than CBO forecast in April. (The agency's projections of interest rates for 2025 to 2028 are the same as they were in April.)

Other changes made to CBO's forecast since April are relatively modest and arise primarily from recent developments. For example, CBO now expects inflation (as measured by both the overall PCE and the core PCE price indexes) to reach and surpass the Federal Reserve's target of 2.0 percent in 2018 rather than in 2019 as previously projected. That upward revision mainly reflects stronger than expected growth in energy prices and, to a lesser extent, health care prices.

Comparison With Other Economic Projections

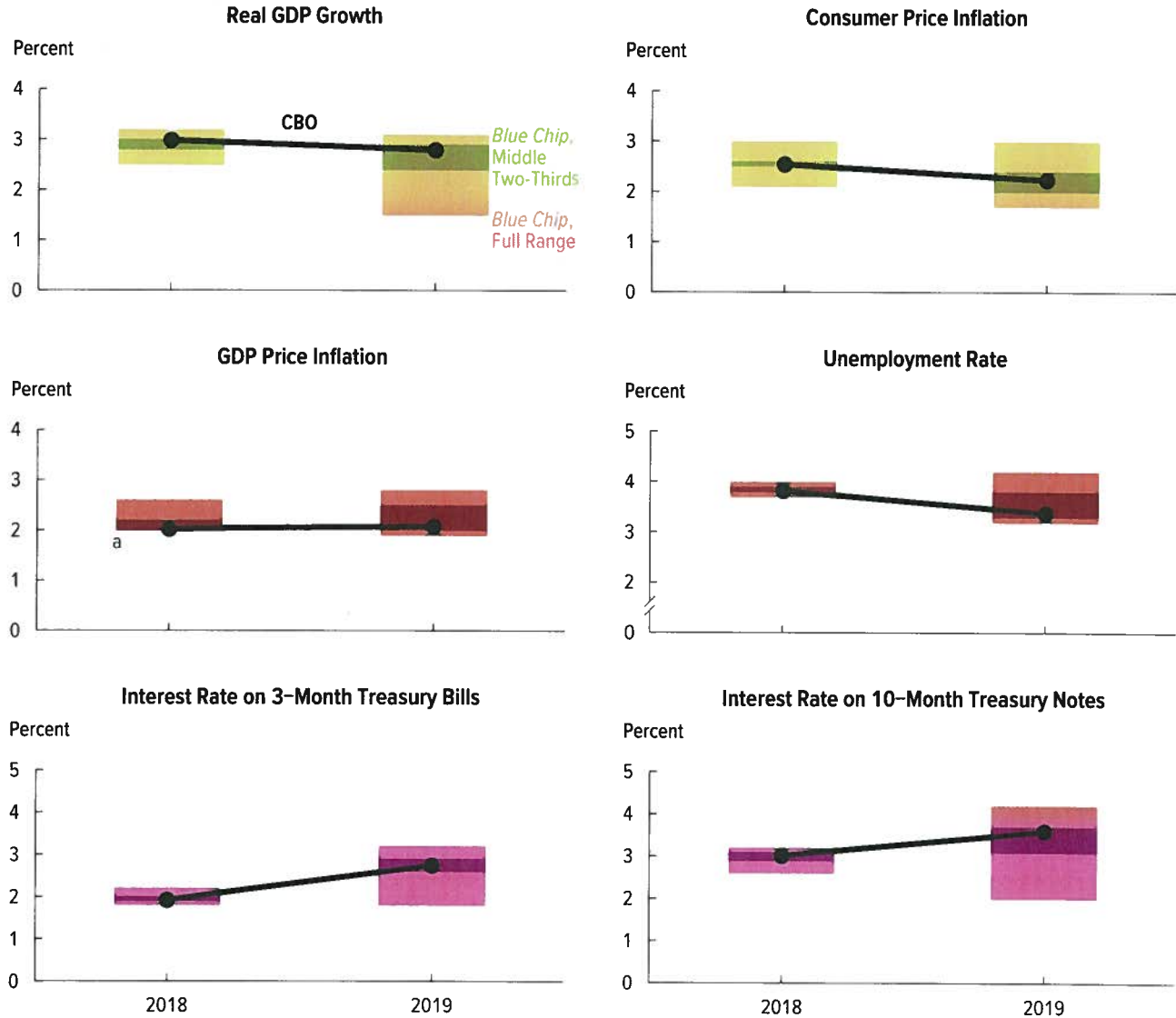
In the near term, CBO anticipates a slightly stronger economy than do most of the private-sector economists whose forecasts were published in the July 2018 *Blue Chip Economic Indicators*. In particular, CBO's projections for both 2018 and 2019 are near the top of the middle two-thirds of the ranges of *Blue Chip* forecasts of real GDP growth, interest rates, and consumer price inflation and near the bottom of the middle two-thirds of the range of forecasts of the unemployment rate (see Figure 2).

Compared with the forecasts made by Federal Reserve officials and reported at the June 2018 meeting of the Federal Open Market Committee, CBO's projections

Figure 2.

Comparison of CBO's Economic Projections With Those From the *Blue Chip* Survey

In the near term, CBO anticipates a somewhat stronger economy than do most of the private-sector economists whose forecasts are published in *Blue Chip Economic Indicators*.



Sources: Congressional Budget Office; Wolters Kluwer, *Blue Chip Economic Indicators* (July 10, 2018).

The full range of forecasts from the *Blue Chip* survey is based on the highest and lowest of the roughly 50 forecasts. The middle two-thirds of that range omits the top one-sixth and the bottom one-sixth of the forecasts.

Real values are nominal values that have been adjusted to remove the effects of changes in prices. Consumer price inflation is calculated using the consumer price index for all urban consumers. Real GDP growth and inflation rates are measured from the average of one calendar year to the next.

The unemployment rate is the number of jobless people who are available for and seeking work, expressed as a percentage of the labor force. The unemployment rate and interest rates are calendar year averages.

GDP = gross domestic product.

a. The lower ends of the full range and the middle two-thirds are equal.

Table 3.

Comparison of CBO's Current and Previous Economic Projections for Calendar Years 2018 to 2028

	2018	2019	2020	Annual Average		Total, 2018–2028
				2018–2022	2023–2028	
Percentage Change From Fourth Quarter to Fourth Quarter						
Real GDP ^a						
August 2018	3.1	2.4	1.7	2.1	1.7	1.9
April 2018	3.3	2.4	1.8	2.1	1.7	1.9
Nominal GDP						
August 2018	5.1	4.7	3.9	4.2	3.9	4.0
April 2018	5.2	4.5	3.9	4.2	3.9	4.0
PCE Price Index						
August 2018	2.2	2.0	2.1	2.1	2.0	2.0
April 2018	1.8	2.0	2.1	2.0	2.0	2.0
Core PCE Price Index ^b						
August 2018	2.1	2.1	2.2	2.1	2.0	2.0
April 2018	1.9	2.1	2.2	2.1	2.0	2.0
Consumer Price Index ^c						
August 2018	2.5	2.3	2.5	2.5	2.4	2.4
April 2018	2.0	2.3	2.5	2.4	2.4	2.4
Core Consumer Price Index ^b						
August 2018	2.3	2.6	2.7	2.5	2.4	2.4
April 2018	2.3	2.5	2.6	2.5	2.4	2.4
GDP Price Index						
August 2018	2.0	2.2	2.2	2.1	2.1	2.1
April 2018	1.8	2.1	2.1	2.1	2.1	2.1
Employment Cost Index ^d						
August 2018	3.4	3.6	3.6	3.5	3.1	3.3
April 2018	3.1	3.6	3.6	3.4	3.2	3.3
Real Potential GDP ^a						
August 2018	2.0	2.1	2.1	2.0	1.8	1.9
April 2018	2.0	2.1	2.1	2.0	1.8	1.9

Continued

suggest a stronger economic outlook for 2018, a similar outlook for 2019, and a weaker outlook for 2020 and the longer term (see Figure 3).¹⁷ The Federal Reserve reports three sets of forecasts: a median, a range, and a central tendency. The range is based on the highest and lowest forecasts made by the members of the Board of Governors of the Federal Reserve System and the

presidents of the Federal Reserve Banks; the central tendency is the range formed by removing the three highest and three lowest projections. For 2018, CBO's projections of real GDP growth, interest rates, and inflation are either above or near the top of the full range of Federal Reserve forecasts, and its projection of the unemployment rate is near the bottom of the full range. For 2019, by contrast, the agency's projections of real GDP growth, interest rates, inflation, and unemployment are largely within the central tendency, whereas for 2020 and the longer term, CBO's projections are somewhat weaker than those of Federal Reserve officials.

17. Board of Governors of the Federal Reserve System, "Economic Projections of Federal Reserve Board Members and Federal Reserve Bank Presidents Under Their Individual Assessments of Projected Appropriate Monetary Policy, June 2018" (June 13, 2018), <https://go.usa.gov/xUNqg> (PDF, 119 KB).

Table 3.

Continued

Comparison of CBO's Current and Previous Economic Projections for Calendar Years 2018 to 2028

	2018	2019	2020	Annual Average		Total, 2018–2028
				2018–2022	2023–2028	
				Annual Average		
Unemployment Rate (Percent)						
August 2018	3.8	3.4	3.6	3.9	4.8	4.4
April 2018	3.8	3.3	3.6	3.9	4.8	4.4
Interest Rates (Percent)						
Three-month Treasury bills						
August 2018	1.9	2.8	3.1	2.9	2.8	2.8
April 2018	1.9	2.9	3.6	3.1	2.8	3.0
Ten-year Treasury notes						
August 2018	3.0	3.6	3.9	3.7	3.7	3.7
April 2018	3.0	3.7	4.1	3.8	3.7	3.8
Tax Bases (Percentage of GDP)						
Wages and salaries						
August 2018	43.1	43.4	43.7	43.6	44.1	43.9
April 2018	43.2	43.5	43.9	43.7	44.3	44.0
Domestic corporate profits ^a						
August 2018	9.5	9.6	9.1	9.1	8.3	8.7
April 2018	9.5	9.6	9.0	9.0	8.0	8.5

Sources: Congressional Budget Office; Bureau of Labor Statistics; Federal Reserve.

GDP = gross domestic product; PCE = personal consumption expenditures.

- a. Real values are nominal values that have been adjusted to remove the effects of changes in prices.
- b. Excludes prices for food and energy.
- c. The consumer price index for all urban consumers.
- d. The employment cost index for wages and salaries of workers in private industry.
- e. Consists of domestic profits, adjusted to remove distortions in depreciation allowances caused by tax rules and to exclude the effects of inflation on the value of inventories.

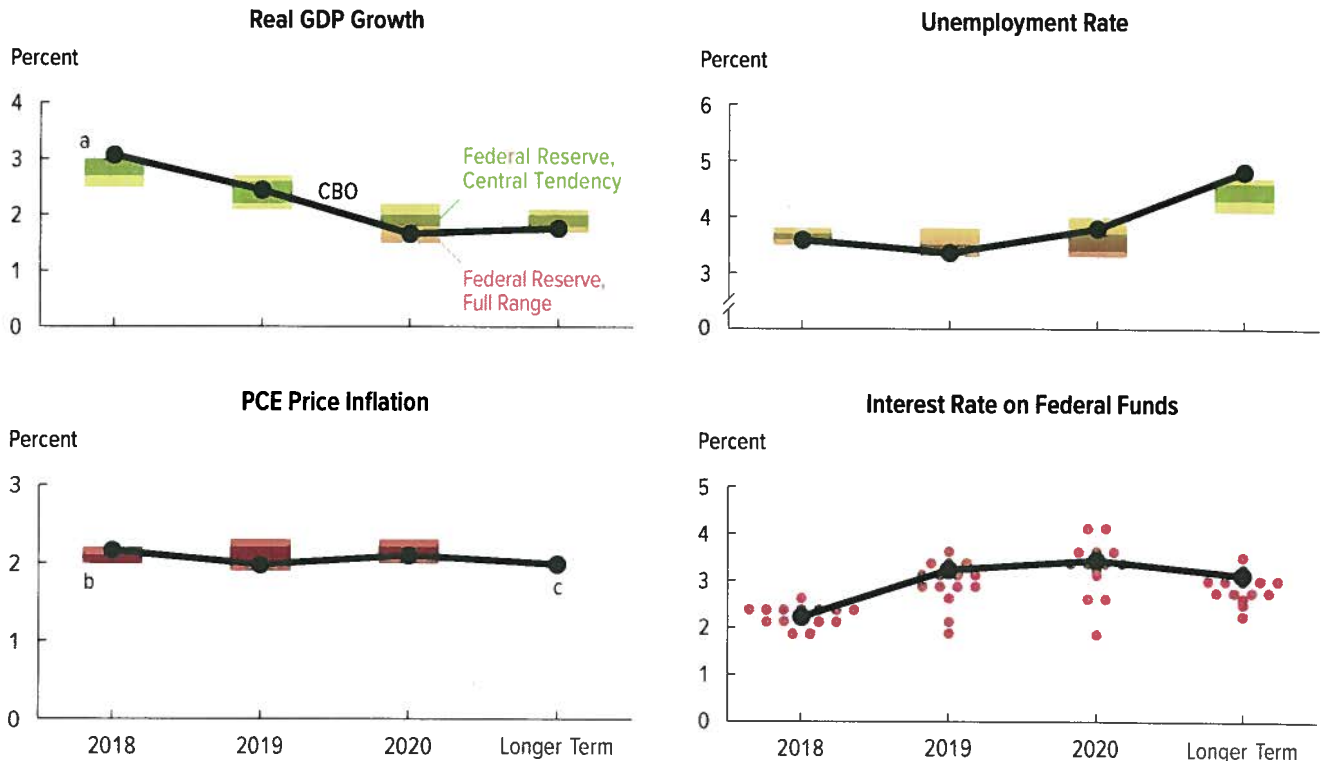
At least part of the discrepancies between CBO's projections and other forecasters' is probably attributable to differences in the economic data available when the forecasts were completed and to differences in the economic

and statistical models used to prepare them. In addition, other forecasters may be assuming certain changes in federal policies will occur, whereas CBO's projections are based on current law.

Figure 3.

Comparison of CBO's Economic Projections With Those by Federal Reserve Officials

Compared with forecasts made by Federal Reserve officials, CBO's projections suggest a stronger economic outlook for 2018, a similar outlook for 2019, and a somewhat weaker outlook for 2020 and the longer term.



Sources: Congressional Budget Office; Board of Governors of the Federal Reserve System, "Economic Projections of Federal Reserve Board Members and Federal Reserve Bank Presidents Under Their Individual Assessments of Projected Appropriate Monetary Policy, June 2018" (June 13, 2018), <https://go.usa.gov/xUNqg> (PDF, 119 KB).

The full range of forecasts from the Federal Reserve is based on the highest and lowest of the 15 projections by the Board of Governors and the presidents of the Federal Reserve Banks. (One Federal Reserve official did not submit longer-run projections for the change in real GDP, the unemployment rate, or the federal funds rate.) The central tendency is the range formed by removing the 3 highest and 3 lowest projections—roughly speaking, the middle two-thirds of the full range.

Each of the data points for the federal funds rate represents a forecast made by one of the members of the Federal Reserve Board or one of the presidents of the Federal Reserve Banks in June 2018. The Federal Reserve officials' forecasts of the federal funds rate are for the rate at the end of the year, whereas CBO's forecasts are fourth-quarter values.

For CBO, longer-term projections are values for 2028. For the Federal Reserve, longer-term projections are described as the value at which each variable would settle under appropriate monetary policy and in the absence of further shocks to the economy.

Real values are nominal values that have been adjusted to remove the effects of changes in prices.

The unemployment rate is the number of jobless people who are available for and seeking work, expressed as a percentage of the labor force.

The core PCE price index excludes prices for food and energy.

Real GDP growth and inflation rates are measured from the fourth quarter of one calendar year to the fourth quarter of the next. The unemployment rate is a fourth-quarter value.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. The upper ends of the full range and central tendency are equal.

b. The lower ends of the full range and central tendency are equal.

c. For PCE price inflation in the longer term, the range and central tendency equal 2 percent.



Appendix: CBO's Economic Projections for 2018 to 2028

The tables in this appendix expand on the information in the main report by showing the Congressional Budget Office's economic projections for each year from 2018 to 2028 (by calendar year in Table A-1 and by fiscal year in Table A-2). CBO's projections for 2018 to 2022 reflect the economy's strong initial momentum as well as significant fiscal stimulus in those years. They also reflect a modest increase in the growth of potential output—the economy's maximum sustainable level of production.

The projections for 2023 to 2028 are primarily based on underlying trends for those years in key variables that determine the growth of potential output, such as the size of the labor force, the number of hours worked, capital investment, and productivity. For 2025 and 2026, however, CBO projects a modest temporary slowdown in the growth of actual output that results from fiscal policy under current law.

Table A-1.

CBO's Economic Projections, by Calendar Year

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	Percentage Change From Year to Year										
Gross Domestic Product											
Real ^a	3.0	2.8	1.9	1.6	1.6	1.6	1.7	1.8	1.6	1.8	1.8
Nominal	5.1	4.9	4.1	3.8	3.8	3.8	3.9	3.9	3.8	3.9	3.9
Inflation											
PCE price index	2.1	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0
Core PCE price index ^b	1.9	2.1	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0
Consumer price index ^c	2.5	2.2	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4
Core consumer price index ^b	2.2	2.4	2.7	2.7	2.5	2.4	2.4	2.3	2.3	2.3	2.4
GDP price index	2.0	2.1	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.1
Employment Cost Index ^d	3.1	3.4	3.6	3.6	3.4	3.2	3.1	3.1	3.0	3.0	3.0
	Calendar Year Average										
Unemployment Rate (Percent)	3.8	3.4	3.6	4.1	4.6	4.7	4.8	4.8	4.9	4.9	4.8
Payroll Employment (Monthly change, in thousands) ^e	210	178	63	23	28	41	53	62	56	66	67
Interest Rates (Percent)											
Three-month Treasury bills	1.9	2.8	3.1	3.2	3.2	3.0	2.8	2.7	2.7	2.8	2.8
Ten-year Treasury notes	3.0	3.6	3.9	4.0	3.9	3.8	3.7	3.7	3.7	3.7	3.7
Tax Bases (Percentage of GDP)											
Wages and salaries	43.1	43.4	43.7	43.9	44.0	44.0	44.0	44.1	44.1	44.1	44.1
Domestic economic profits	9.5	9.6	9.1	8.7	8.5	8.3	8.3	8.3	8.3	8.4	8.4
Tax Bases (Billions of dollars)											
Wages and salaries	8,785	9,288	9,740	10,145	10,548	10,962	11,391	11,842	12,303	12,789	13,295
Domestic economic profits ^f	1,928	2,055	2,026	2,013	2,027	2,066	2,146	2,240	2,318	2,426	2,534
Nominal GDP (Billions of dollars)	20,377	21,383	22,269	23,110	23,977	24,896	25,869	26,882	27,898	28,989	30,121

Source: Congressional Budget Office.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Real values are nominal values that have been adjusted to remove the effects of changes in prices.

b. Excludes prices for food and energy.

c. The consumer price index for all urban consumers.

d. The employment cost index for wages and salaries of workers in private industry.

e. The average monthly change, calculated by dividing by 12 the change in payroll employment from the fourth quarter of one calendar year to the fourth quarter of the next.

f. Consists of domestic profits, adjusted to remove distortions in depreciation allowances caused by tax rules and to exclude the effects of inflation on the value of inventories.

Table A-2.

CBO's Economic Projections, by Fiscal Year

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	Percentage Change From Year to Year										
Gross Domestic Product											
Real ^a	2.9	3.0	2.1	1.6	1.6	1.6	1.7	1.8	1.7	1.7	1.8
Nominal	4.9	5.1	4.3	3.8	3.7	3.8	3.9	3.9	3.8	3.9	3.9
Inflation											
PCE price index	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0
Core PCE price index ^b	1.8	2.1	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0
Consumer price index ^c	2.4	2.3	2.4	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4
Core consumer price index ^b	2.0	2.3	2.7	2.7	2.6	2.4	2.4	2.3	2.3	2.3	2.4
GDP price index	2.0	2.0	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.1
Employment Cost Index ^d	3.0	3.4	3.6	3.6	3.4	3.3	3.2	3.1	3.0	3.0	3.0
	Fiscal Year Average										
Unemployment Rate (Percent)	4.0	3.4	3.5	4.0	4.5	4.7	4.8	4.8	4.9	4.9	4.8
Payroll Employment (Monthly change, in thousands) ^e	199	202	89	25	26	38	50	60	57	65	67
Interest Rates (Percent)											
Three-month Treasury bills	1.7	2.6	3.1	3.2	3.2	3.1	2.9	2.7	2.7	2.8	2.8
Ten-year Treasury notes	2.8	3.5	3.8	4.0	3.9	3.8	3.7	3.7	3.7	3.7	3.7
Tax Bases (Percentage of GDP)											
Wages and salaries	43.1	43.4	43.7	43.9	44.0	44.0	44.0	44.0	44.1	44.1	44.1
Domestic economic profits	9.3	9.7	9.2	8.8	8.5	8.3	8.3	8.3	8.3	8.3	8.4
Tax Bases (Billions of dollars)											
Wages and salaries	8,665	9,165	9,634	10,045	10,447	10,857	11,282	11,728	12,187	12,665	13,167
Domestic economic profits ^f	1,866	2,045	2,037	2,013	2,022	2,052	2,123	2,220	2,296	2,396	2,508
Nominal GDP (Billions of dollars)	20,122	21,141	22,059	22,899	23,756	24,660	25,621	26,629	27,639	28,709	29,837

Source: Congressional Budget Office.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Real values are nominal values that have been adjusted to remove the effects of changes in prices.

b. Excludes prices for food and energy.

c. The consumer price index for all urban consumers.

d. The employment cost index for wages and salaries of workers in private industry.

e. The average monthly change, calculated by dividing by 12 the change in payroll employment from the fourth quarter of one calendar year to the fourth quarter of the next.

f. Consists of domestic profits, adjusted to remove distortions in depreciation allowances caused by tax rules and to exclude the effects of inflation on the value of inventories.



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About This Document

This document is one of a series of reports on the state of the economy that the Congressional Budget Office issues each year. In keeping with CBO's mandate to provide objective, impartial analysis, this report makes no recommendations.

CBO's Panel of Economic Advisers commented on an early version of the economic forecast underlying this report. Members of the panel are Katharine Abraham, Alan Auerbach, David Autor, Olivier Blanchard, Markus Brunnermeier, Mary Daly, Steven Davis, Kathryn Dominguez, Robert Hall, Jan Hatzius, Donald Kohn, Nellie Liang, Gregory Mankiw, Emi Nakamura, Jonathan Parker, Adam Posen, James Poterba, Valerie Ramey, Brian Sack, Robert Shimer, James Stock, Kevin Warsh, and Mark Zandi. Seth Carpenter, Peter Henry, and Melissa Kearney attended the panel's meeting as guests. Although CBO's outside advisers provided considerable assistance, they are not responsible for the contents of this report.

Y. Gloria Chen wrote this report with guidance from Robert Arnold, John Kitchen, Kim Kowalewski, and Jeffrey Werling. The economic forecast was prepared by David Burk, Y. Gloria Chen, Michael Falkenheim, Daniel Fried, Edward Gamber, Ronald Gecan, Mark Lasky, Jeffrey Perry, John Seliski, Robert Shackleton, Claire Sleight, Jazmine Smith, Adam Staveski, and Christopher Williams.

Wendy Edelberg, Mark Hadley, Jeffrey Kling, and Robert Sunshine reviewed the report, Bo Peery edited it, and Casey Labrack prepared it for publication. The report is available on CBO's website (www.cbo.gov/publication/54318).

Keith Hall
Director
August 2018

Geographic Guide

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Economic and Employment Projections

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CREDIT OPINION

5 March 2019

Update

✓ Rate this Research

RATINGS

Duke Energy Corporation

Domicile	Charlotte, North Carolina, United States
Long Term Rating	Baa1
Type	LT Issuer Rating - Dom Curr
Outlook	Stable

Please see the [ratings section](#) at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Duke Energy Corporation

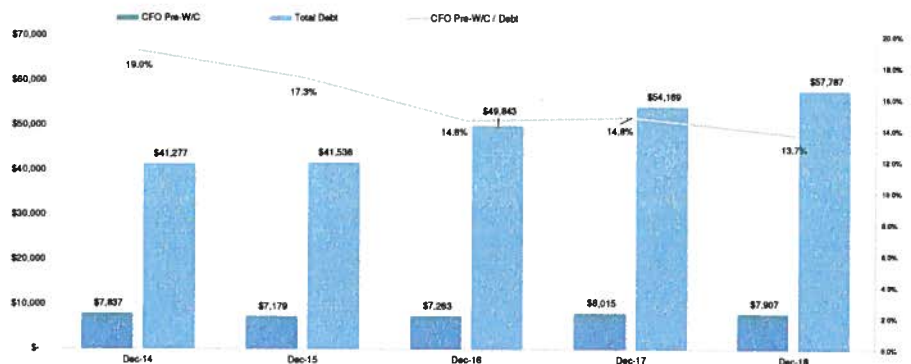
Update to credit analysis

Summary

Duke Energy Corporation (Duke) is one of the largest utility holding companies in the US. Its credit profile reflects the company's diverse, low business risk operations in which about 97% of earnings and cash flow are derived from rate regulated businesses in strong economies with supportive regulators. These credit supportive factors are balanced against financial metrics that we expect will improve in 2019, but remain weak for the company's credit quality.

Exhibit 1

Historical CFO Pre-WC, Total Debt and CFO Pre-WC to Debt (\$MM) [1]



[1] CFO Pre-WC is defined as cash flow from operations excluding changes in working capital
 Source: Moody's Financial Metrics

Credit strengths

- » Diverse group of utilities operating in seven states in three geographic regions
- » Credit supportive regulatory relationships
- » Businesses are essentially all regulated or contracted
- » Recovery of coal ash expenditures has generally been resolved

Credit challenges

- » Weak consolidated credit metrics due primarily to:
- » Significant capital spending for utility growth and modernization as well as other investments, including the delayed Atlantic Coast pipeline

- » Lag in the recovery of storm related costs and coal ash spending will maintain pressure on credit metrics
- » Relatively high parent company debt levels

Rating outlook

The stable outlook reflects our expectation that Duke will maintain supportive regulatory relationships in all of its jurisdictions. The outlook also assumes management will manage its operating, capital and financing plans in a manner that supports credit quality and enables the maintenance of credit metrics that are consistent with our expectations. For example, we currently anticipate the company's ratio of cash flow from operations excluding working capital (CFO pre-WC) to debt will improve to the 15% range.

Factors that could lead to an upgrade

- » Although not likely in the near term, upward pressure on ratings could develop if regulatory environments were to become more supportive, leading to increased cash flow
- » If there were to be reductions in leverage leading to materially stronger credit metrics
- » Longer term, a ratio of CFO pre-WC to debt above 18% could lead to an upgrade

Factors that could lead to a downgrade

- » A deterioration in the credit supportiveness of regulatory relationships, which could result in a reduction in cash flow
- » A material increase in operating or capital expenditures that is not able to be recovered on a timely basis
- » An increase in leverage leading to weaker credit metrics for example, CFO pre-WC remaining below 15% could put downward pressure on the ratings
- » Parent company debt levels above 35% of total Moody's adjusted consolidated debt for an extended period

Key indicators

Exhibit 2

Duke Energy Corporation [1]

	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18
CFO Pre-W/C + Interest / Interest	5.7x	5.3x	4.7x	4.7x	4.4x
CFO Pre-W/C / Debt	19.0%	17.3%	14.6%	14.8%	13.7%
CFO Pre-W/C – Dividends / Debt	13.4%	11.8%	9.9%	10.3%	9.4%
Debt / Capitalization	43.1%	44.2%	47.5%	53.0%	52.9%

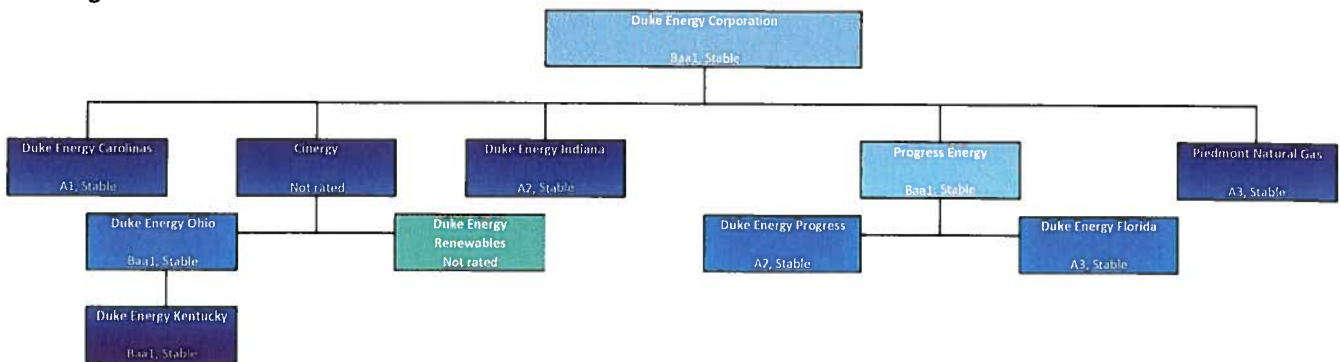
[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
 Source: Moody's Financial Metrics

Profile

Duke is a large (2018 revenues of \$24.5 billion), diversified energy company with mostly regulated utility operations headquartered in Charlotte, North Carolina. Its main business consists of its electric utilities and infrastructure business segment, which serves approximately 7.7 million retail electric customers in six US states and made up about 90% of Duke's 2018 earnings base. The company's gas utilities and infrastructure businesses provide natural gas to over 1.6 million customers located in five states. Duke has also formed a joint venture to build and own a 47% share of the estimated \$7.0-\$7.8 billion Atlantic Coast Pipeline, a 600-mile interstate natural gas pipeline from West Virginia to the Carolinas which has been experiencing permitting delays and increased costs. The company's relatively small (about 3% of 2018 adjusted earnings) commercial renewables business segment builds, develops and operates wind and solar generation projects throughout the continental US.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody.com for the most updated credit rating action information and rating history.

Exhibit 3
Duke Organizational Structure



Source: Moody's Investors Service, Company

Detailed credit considerations

Diverse group of utilities operating in credit supportive regulatory environments

Duke's overall credit profile is driven by seven regulated utilities operating in seven US states, which provide a high degree of regulatory and geographic diversity. We consider these regulatory jurisdictions to be supportive with rate settlements in place at most of its utilities. In addition, the company has achieved reasonably credit supportive outcomes in its major jurisdictions on issues related to coal ash remediation and federal tax reform.

In Duke's largest electric jurisdiction, North Carolina, the North Carolina Utilities Commission (NCUC) issued orders in 2018 for both Duke Energy Carolinas and Duke Energy Progress (combined approximately 56% of Duke's 2018 regulated earnings base) that established revenues based on a 9.9% return on equity, and a 52% equity base. The orders followed settlement agreements on traditional rate making parameters. We view the ability to regularly settle on more traditional issues as a credit positive.

The North Carolina orders also resolved issues relating to the recovery of costs for coal ash remediation. Spending for coal ash remediation has been deemed reasonable and prudent and, with the exception of a specific manageable penalty assessed in each case, the companies have been authorized to recover their prior expenditures over five years with a full debt and equity return. Ongoing expenditures will continued to be deferred for future recovery. In South Carolina, Duke Energy Progress previously received authorization to recover coal ash remediation costs over fifteen years with a full return, and is now requesting recovery over five years – similar to North Carolina. We view the ability to earn a full return on these expenditures, and to recover them over reasonable time frames, as credit positive. As a result of this rate base like treatment, we currently view the spending for coal ash remediation to be akin to a capital expenditure.

Duke Energy Carolinas' North Carolina order also addressed the impact of federal tax reform. The company's revenue requirement was reduced by the full amount of the change in tax rate to 21% from 35%. However, the company has been allowed to retain all excess deferred taxes for three years, or until its next rate case, whichever is sooner. At that time, the NCUC will evaluate how to best return this value to customers. We believe the form of return could include accelerated recovery of certain expenses, or the avoidance of rate increases. We would view these outcomes as credit positive, and we believe the decision will likely set a precedent for similar treatment at Duke Energy Progress.

The NCUC did however deny Duke's requests for rider recovery for grid modernization investments and ongoing coal ash remediation. As a result, there will continue to be regulatory lag associated with these expenditures and we expect the utilities will file frequent rate cases to minimize this exposure. Our stable outlook assumes a continuation of regulatory outcomes that will allow the companies to maintain cash flow based credit metrics at levels that are supportive of their current credit quality.

In South Carolina, as part of its November 2018 rate case filings, Duke Energy Carolinas and Duke Energy Progress have requested rate increases in the amounts of \$168 million and \$59 million respectively (each approximately 10%) premised on equity returns of 10.5% and a 53% equity component. The requested increases are driven primarily by major capital investments and coal ash remediation spending and are offset by the changes in state and federal tax rates. In Duke Energy Carolina's case, the South Carolina Office of

Regulatory Staff (ORS), which now acts as a consumer advocate, in late February recommended an increase of \$77 million premised on a 9.3% ROE.

In the case of coal ash remediation in South Carolina, in 2016, the PSCSC issued accounting orders allowing the deferral of certain ash basin closure costs and the ability to net some of these expenses against regulatory liabilities accrued as a result of customer collections for future nuclear decommissioning and/or ash basin closure costs. Expenses not offset by existing liabilities are allowed to be deferred for future recovery. In Duke Energy Progress last rate case, the PSCSC authorized the recovery of deferred coal ash remediation costs over a 15 year period with a full return. In their current cases, both Duke Energy Progress and Duke Energy Carolinas are requesting the recovery period be shortened to five years, which would align with approvals in North Carolina.

In Florida (approximately 18% of 2018 regulated earnings base), as part of a 2017 second revised and restated settlement agreement (which amended a 2013 settlement agreement), Duke Energy Florida will increase base rates by an incremental \$67 million each year from 2019 through 2021, subject to an ROE range of 9.5% to 11.5%. The updated order also included provisions that addressed the expected passage of federal tax reform and included the ability to use a portion of future benefits resulting from lower tax rates to accelerate the depreciation of existing coal plants rather than decreasing revenue. In January 2018, the Florida Public Service Commission authorized Duke Energy Florida to utilize the remainder of the benefits of lower tax rates to avoid a rate increase for power restoration costs associated with the company's 2017 response to Hurricane Irma. We view these tax reform related developments as supportive of credit quality.

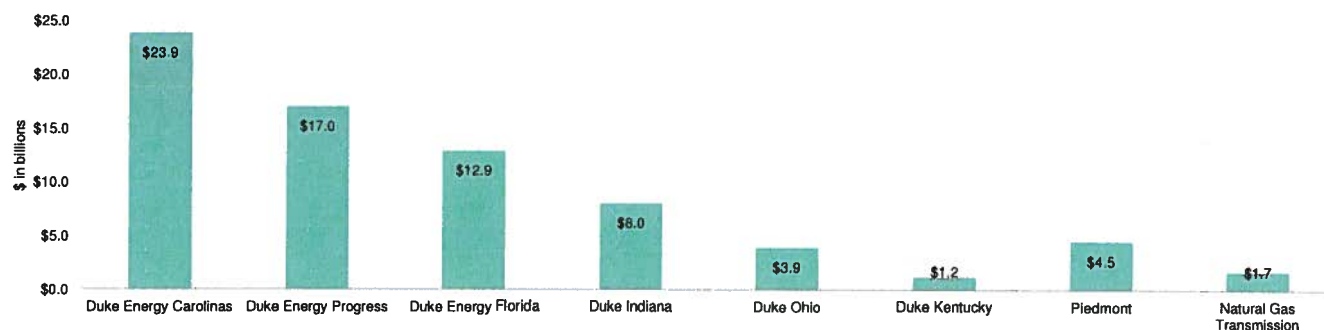
Duke Energy Florida also continues to benefit from a credit positive Generation Base Rate Adjustment (GBRA) mechanism for new generation built or purchased during 2016-2018 that allows recovery of prudently incurred costs through a base rate adjustment when the generation is placed in service. Duke Florida's 1,640 MW \$1.5 billion Citrus County combined cycle plant was placed into service in 2018. The 2017 settlement included a similar mechanism for up to 700MW of new solar generation to be acquired or constructed between 2018 and 2022.

In Indiana (about 11% of 2018 regulated earnings base), in June 2016, the Indiana Utility Regulatory Commission (IURC) approved a settlement agreement between Duke Energy Indiana and key consumer groups on a seven year \$1.4 billion grid modernization plan. As a result, in accordance with previously approved state legislation, 80% of the plan's costs will be recovered through a rate rider, with the remaining 20% recoverable through future base rate proceedings. In May 2017, Duke Energy Indiana received approval to recover 60% of the capital and 80% of the operating costs of complying with the US Environmental Protection Agency's Coal Combustion Residuals rules via an environmental mandate tracker, and to defer the remaining difference for recovery in the utility's next rate case. In June 2018, Duke Energy Indiana reached a settlement with key intervenors on tax reform. The settlement calls for a flow through of the reduction in tax rate to 21% from 35% beginning in September. However, the protected portion of excess deferred taxes will be retained until January 2020, after which it will be returned over approximately 26 years. The unprotected portion will be returned over 10 years, but to mitigate the impact on cash flow based credit metrics, the amount is lower in the first five years. Duke Energy Indiana expect to file for its next general rate case in 2019.

Operations are essentially all regulated

In 2015, Duke successfully exited the merchant generating business with the sale of Duke Energy Ohio's competitive generating assets. In 2016, Duke sold its more volatile Latin American businesses and acquired Piedmont Natural Gas Company (Piedmont), expanding its relatively low risk local natural gas distribution operations in the historically credit supportive states of North Carolina, South Carolina and Tennessee. As a result, essentially all of its operations are now either state or federally regulated. Duke's commercial renewables segment provides services under long term contracts, and contributed under 5% of the company's 2018 earnings. The shift to lower business risk operations has helped to mitigate the decline in credit metrics that followed the Piedmont acquisition.

Exhibit 4

2018 Regulated Utilities Earnings Base

Source: Company

Consolidated credit metrics are weak

Duke's revenues and cash flow are being negatively impacted by the 2017 Tax Cuts and Jobs Act (TCJA), continued lag in recovery of ash disposal costs, severe storm activity, and lag in recovery of grid modernization investments. As a result, cash flow based credit metrics, which declined in 2016 following Duke's acquisition of Piedmont, remained depressed through 2018. For example, for the year ended December 31, 2018, we calculate Duke's ratio of cash flow from operations excluding changes in working capital (CFO pre-WC) to debt to be about 13.7%, which is at the lower end of the "Baa" scoring range for this metric in our rating methodology for regulated electric and gas utilities.

To support its balance sheet in view of these lower cash flows, Duke issued approximately \$2 billion of equity in 2018 and plans to issue an additional approximately \$500 million annually through at least 2022. Although the company continued to experience solid growth in its service territories, and was able to control normal operating and maintenance expenses, it has been hit with major storms in each of the past three years.

In 2018, a succession of unusually severe storms resulted in approximately \$1.2 billion of unplanned costs across Duke's territories in the Carolinas and Florida, contributing to a 2018 consolidated CFO pre-WC to debt metric about 0.2% lower than anticipated. The impact on Duke's consolidated credit metrics was significantly moderated by the company's scale, its ability to contain costs, and otherwise favorable weather conditions.

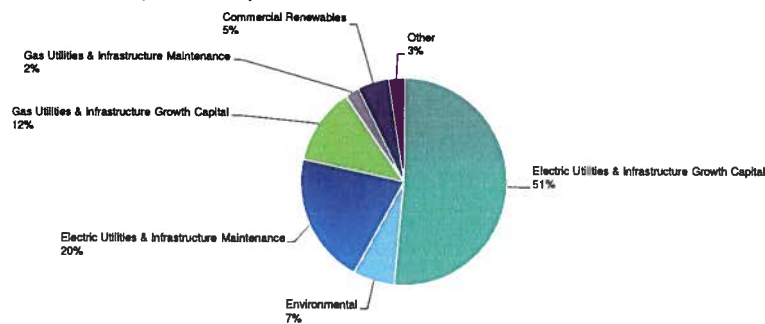
Going forward, we expect the lag in recovery of storm costs, coal ash spending, and grid modernization investments along with a delay in completion of the Atlantic Coast Pipeline will maintain pressure on credit metrics. While we anticipate Duke's ratio of CFO pre-WC will be around 15% in 2019, we believe it could move toward 14% in 2020 before rebounding as a result of rate activity. We note that in addition to planning regular rate cases in the Carolinas, Duke is also actively seeking legislation to allow rider recovery for its grid modernization investments which would reduce the assumed lag in recovery, and would be credit positive.

High capital spending for utility infrastructure and growth initiatives

In 2018, the company lowered its five year capital expenditures plans by \$1 billion as part of its efforts to strengthen cash flow metrics. However, in its most recent five year plan, capital expenditures have risen by about \$2 billion driven by a significant increase in maintenance capital needed for grid resiliency, particularly in light of recent storm activity.

Capital expenditures at Duke, inclusive of spending for coal ash remediation, have steadily increased year over year, nearly doubling from about \$5.5 billion in 2014 to about \$10.1 billion in 2018. As shown in the exhibit below, the largest portion of the plan represents what Duke terms "growth" capital driven by grid modernization in the Carolinas and natural gas infrastructure. In 2018, maintenance spending increased to \$3.2 billion due in part to remediation efforts related to storm damages; going forward maintenance spending is expected to range between \$2 and \$2.5 billion per year.

Exhibit 5

2019-2023 Capital Expenditures Forecast (\$50 billion)

Source: Company

In addition to its core utility investment, Duke is growing its natural gas pipeline businesses and plans to continue to selectively invest in renewables. Included in the company's capital plan for 2019-2023 is about \$2.9 billion for midstream pipelines, primarily the Atlantic Coast Pipeline (ACP), and about \$2.5 billion for utility scale contracted renewables. Although we view the commercial renewables business as higher risk than its regulated utility business segment, these assets for the most part sell power to investor owned, cooperative, or municipal utilities under risk mitigating long-term contracts.

ACP is a 600-mile interstate natural gas pipeline being built by Dominion from West Virginia to eastern North Carolina. Duke holds a 47% share in the project. The pipeline will supply natural gas from the Utica and Marcellus shale basins to natural gas generation at Duke Energy Carolinas and Duke Energy Progress, as well as to Piedmont and other utilities in the area.

Construction of ACP was recently halted due to adverse court rulings on environmental issues, including a biological opinion and a permit to cross under the Appalachian Trail. As a result, the estimated cost to complete the project recently increased by about \$1 billion, and its estimated completion schedule has been extended by over a year. The pipeline is currently expected to cost between \$7 and \$7.8 billion (\$3.3-\$3.7 for Duke) and will likely be completed in two phases. Construction of the first phase, which does not cross the Appalachian Trail, is expected to be restarted in the fall following resolution of the biological opinion issue. A hearing on the biological opinion is scheduled to take place in May.

Construction of the second phase requires resolution of a Fourth Circuit Court of Appeals decision to vacate the permit issued by the U.S. Forest Service allowing ACP to cross under the Appalachian Trail. On February 25th, ACP's request for a rehearing on this matter was denied. ACP now plans to file an appeal with the Supreme Court, which if accepted, would likely not be determined until 2020, moving the estimated final completion date of the pipeline into 2021. The increased costs, and delay of cash flow from this project, are adding downward pressure to Duke's credit metrics.

Lag in the recovery of storm related costs will pressure metrics in the near term

In the fall and winter of 2018, Duke's operations were impacted by a succession of severe storms. Hurricane Florence arrived in mid-September and affected the company's operations in North and South Carolina. One month later, Hurricane Michael came ashore in the gulf region and caused damage all the way from Florida through North and South Carolina. In December 2018, Winter Storm Diego was the third major storm to impact Duke Energy Progress and Duke Energy Carolinas service territories.

Total costs for the three storms was in excess of \$1 billion, primarily in Duke Energy Progress' North Carolina and Duke Energy Florida's service territories. Utilities in these territories have a good history of storm recovery, albeit with some regulatory lag. Duke currently plans to seek securitization legislation, which would assure recovery of costs at lower cost to customers; however recovery would likely not begin until 2020 and will be spread out over a number of years. In the meantime, Duke's consolidated debt balances are about \$1 billion higher than previously forecast, which add negative pressure to credit metrics.

Recovery of coal ash expenditures has been mostly resolved, but lag persists

In 2014, North Carolina lawmakers overwhelmingly passed the Coal Ash Management Act of 2014, which regulates and requires the closure of coal ash basins at Duke's coal plant sites throughout the state. The legislation required Duke to take costly, immediate action to excavate and close ash basins at three of its highest risk sites (including two Duke Energy Progress plants) by August 2019 and a fourth by August 2022. The 2014 legislation also required the evaluation and classification of all of the remaining basins, many of which were initially determined to be of "intermediate" priority, which would have required closure by 2024.

In July 2016, new legislation was passed that amended the Coal Ash Management Act and required Duke to provide permanent alternative water supplies to neighbors within a half mile of its coal plants, but importantly also mandated the reclassification of certain intermediate priority sites as low priority once alternative water supplies are in place and certain dam enhancement projects are complete. This expanded the options for closing these basins and extends the time frame for closure to 2029.

In 2014, Duke recognized a \$3.5 billion Asset Retirement Obligation (ARO) for its estimated obligations to close its North Carolina coal ash basins. In the second quarter of 2015, after publication of the EPA's final Coal Combustion Rules, Duke incrementally increased the ARO by \$1 billion as it created additional obligations for the company in South Carolina, Indiana, and Kentucky, putting its total ARO at \$4.5 billion. Duke continues to refine its estimated obligations as work continues on the sites. As of December 31, 2018, Duke had spent approximately \$1.8 billion on coal ash remediation, and its total remaining ARO was approximately \$4.9 billion.

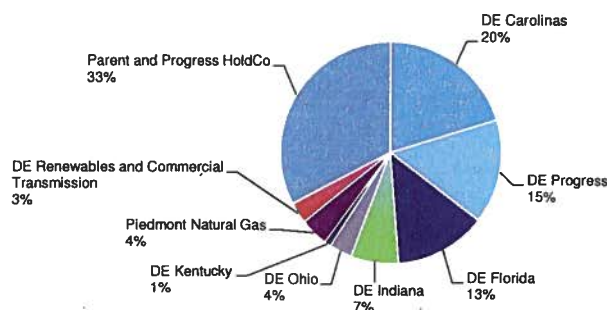
In Duke's largest jurisdictions in North and South Carolina, coal ash basin closure and remediation spending is not recovered via trackers or other automatic cost recovery provisions and must be recovered via base rate case filings. As result, there will likely continue to be regulatory lag in the recovery of these costs, which will put downward pressure on credit metrics.

Equity issuance has contained parent leverage – but it will still be relatively high

Duke's \$2 billion 2018 equity issuance, and its plans for ongoing issuance of \$500 million per year, have helped control the company's need for parent level debt financing. Prior to the announced 2018 equity issuance, we expected the level of parent debt to spike in 2018 and 2019 due in part to investments in ACP. Currently, we expect the proportion of Duke parent debt as a percentage of total consolidated debt will remain under 35%. This is still relatively high when compared to some other regulated utility holding company peers, and a factor in the wide differential between Duke and most of its subsidiaries' credit quality.

Exhibit 6

2018 Total Reported Debt by Entity



Source: Moody's Investors Service, Company

Carbon transition and environmental sustainability

Duke has moderate carbon transition risk within the regulated utility sector as the majority of its energy is generated by fossil fuels. In its 2017 Sustainability Report, Duke outlines key areas of opportunity that include modernizing the energy grid, generating cleaner energy using natural gas and renewables, and expanding the company's natural gas infrastructure to meet customer needs. Since 2005, Duke has reduced carbon dioxide emissions by 31% and currently plans a 40% reduction by 2030. As of 2018, the company's consolidated net output included about 31% from coal / oil fired resources, versus about 61% in 2005. By 2030 Duke estimates that 15% of its total company generation will be fired by coal.