

American Electric Power  
Non-UMWA Postretirement Health Care Plan

Actuarial Valuation Report  
Postretirement Welfare Cost for Fiscal Year Beginning  
January 1, 2020 under U.S. GAAP

Employer Contributions for Plan Year Beginning  
January 1, 2020

April 2020



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# Purposes of valuation

American Electric Power (AEP) retained Willis Towers Watson US LLC (Willis Towers Watson), to perform an actuarial valuation of its postretirement welfare programs for the purpose of determining the following:

1. The value of benefit obligations as of January 1, 2020, and AEP's postretirement welfare cost for fiscal year ending December 31, 2020, in accordance with FASB Accounting Standards Codification Topic 715 (ASC 715-60). It is anticipated that a separate report will be prepared for year-end financial reporting and disclosure purposes.
2. Plan reporting information in accordance with FASB Accounting Standards Codification Topic 965 (ASC 965).
3. Expected contributions under the plan sponsor's funding policy for the 2020 plan year.
4. The estimated maximum tax-deductible contribution for the tax year in which the 2020 plan year ends as allowed by the Internal Revenue Code. The maximum tax-deductible contribution should be finalized in consultation with AEP's tax advisor.

## Limitations

This valuation has been conducted for the purposes described above and may not be suitable for any other purpose. In particular, please note that there may be certain events that have occurred since the valuation date that are not reflected in the current valuation.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices.

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# Section 1: Summary of key results

## Benefit cost, plan assets & obligations

All monetary amounts shown in U.S. Dollars

Fiscal Year Beginning		01/01/2020	01/01/2019
<b>Benefit Cost/ (Income)</b>	Net periodic postretirement benefit cost/(income)	(110,676,137)	(82,976,383)
Measurement Date		01/01/2020	01/01/2019
<b>Plan Assets</b>	Fair value of assets (FVA)	1,747,344,491	1,510,044,948
<b>Benefit Obligations</b>	Accumulated postretirement benefit obligation (APBO)	1,167,231,750	1,126,652,189
<b>Funded Status</b>	Funded status	580,112,741	383,392,759
<b>Accumulated Other Comprehensive (Income)/Loss</b>	Net prior service cost/(credit)	(285,461,153)	(343,305,273)
	Net loss/(gain)	239,597,249	410,564,569
	Total accumulated other comprehensive (income)/loss	(45,863,904)	67,259,296
<b>Assumptions<sup>1</sup></b>	Discount rate	3.30%	4.30%
	Expected long-term return on plan assets	5.50%	6.25%
	Rate of compensation/salary increase	Rates vary by age from 3.5% to 11.5%	Rates vary by age from 3.5% to 12.0%
	Current health care cost trend rate	6.00%	6.25%
	Ultimate health care cost trend rate	4.50%	5.00%
	Year of ultimate trend rate	2026	2024
<b>Participant Data</b>	Census date	01/01/2020	01/01/2019
Plan reporting (ASC 965) for Plan Year Beginning		01/01/2020	01/01/2019
	Present value of accumulated benefits	1,273,542,303	1,126,899,572
	Market value of assets	1,747,344,891	1,510,044,948
	Plan reporting discount rate	3.30%	4.30%

<sup>1</sup> Rates are expressed on an annual basis where applicable.

Employer Contributions (net of Medicare subsidy)		Plan Year 2020	Plan Year 2019
<b>Cash Flow</b>	Funding policy contributions	0	0
	Maximum tax deductible contributions	135,739,208 (est)	120,806,687
	Actual contributions	815,898 <sup>1</sup>	620,405 <sup>2</sup>
	Expected benefit payments and expenses, net of participant contributions	87,615,846	85,110,453

<sup>1</sup> Includes \$856,974 expected to be paid directly for key retirees in 2020, offset by \$41,076 in Medicare Retiree Drug Subsidies.

<sup>2</sup> Includes \$940,432 paid directly for key retirees in 2019, offset by \$320,027 in Medicare Retiree Drug Subsidies.

## Employer contributions

Employer contributions are the amounts paid by AEP to provide for postretirement benefits, net of participant contributions and Medicare Part D payments. Most participants receiving benefits are required to contribute toward the cost of the plan.

AEP's funding policy is to contribute an amount equal to the postretirement welfare cost plus retiree drug subsidy payments received (the sum of which can be no less than zero). AEP maximizes its contribution to the 401(h) account and contributes the remainder to the various VEBAs. AEP may deviate from this policy, as permitted by its terms, based on cash, tax or other considerations.

## Postretirement welfare cost and funded position

The cost of the postretirement welfare plan is determined in accordance with generally accepted accounting principles in the U.S. ("U.S. GAAP"). The fiscal 2020 postretirement welfare benefit cost/(income) for the plan is \$(110,676,137). Under U.S. GAAP, the funded position (fair value of plan assets less the projected benefit obligation, or "APBO") of each postretirement welfare plan at the plan sponsor's fiscal year-end (measurement date) is required to be reported as a liability. The APBO is the actuarial present value of benefits attributed to service rendered prior to the measurement date, taking into consideration expected future pay increases for pay-related plans. The plan's overfunded (underfunded) APBO as of January 1, 2020 was \$580,112,741 based on the fair value of plan assets of \$1,747,344,491 and the APBO of \$1,167,231,750.

Fiscal year-end financial reporting information and disclosures are prepared before detailed participant data and full valuation results are available. Therefore, the postretirement benefit asset (liability) at December 31, 2019 was derived from a roll forward of the January 1, 2019 valuation results, adjusted for the year-end discount rate and asset values, as well as significant changes in plan provisions and participant population. The next fiscal year financial reporting information will be developed based on the results of the January 1, 2020 valuation, projected to the end of the year and similarly adjusted for the year-end discount rate and asset values, as well as significant changes in plan provisions and participant population.

## Change in postretirement welfare cost

The postretirement welfare cost/(income) decreased from \$(82,976,383) in fiscal 2019 to \$(110,676,137) in fiscal 2020, as set forth below:

All monetary amounts shown in millions of U.S. Dollars

Postretirement Welfare Cost	
Prior year	(83.0)
Change due to:	
■ Expected based on prior valuation and contributions during prior year	(2.9)
■ Unexpected noninvestment experience	(0.0)
■ Unexpected investment experience	(37.7)
■ Plan Amendment	(1.7)
■ Assumption changes	14.6
Current year	(110.7)

Significant reasons for these changes include the following:

- Per capita health care cost assumption was updated and decreased the postretirement welfare cost. Note that these rates reflect the elimination of the Health Insurance Fee in 2021.

All monetary amounts shown in millions of U.S. Dollars

	2020	2019
Medical (Overall Average)		
Under age 65 <sup>1</sup>		
■ HSA Basic	9,503	9,427
■ HSA Plus	10,464	10,394
■ HRA	11,406	11,400
Age 65 and older (before Part D offsets)		
■ Medicare Select/COB <sup>2</sup>	3,746	3,985
■ Medicare Standard/MOB <sup>2</sup>	2,673	2,868
■ CSP	2,567	2,301
Medicare Part D offsets		
■ Medicare Advantage/MOB/COB (EGWP)	(1,037)	(915)
■ CSP (RDS)	(303)	(273)

See Appendix A for additional details on per capita claims costs assumptions including assumed claims costs adjusted for age-related morbidity adjustments.

<sup>1</sup> Pre-65 per capita claims costs shown above do not include the 5% adjustment for potential dependent children covered under the plan.

<sup>2</sup> Medicare Advantage rates shown reflect the removal of HIF in 2020 despite it being eliminated after 2020 under legislation signed December 2019.

- The discount rate decreased 100 basis points since the prior year which increased the postretirement welfare cost.
- Actual asset returns during 2019 were greater than the assumed rate of 6.25% which decreased the postretirement welfare cost.
- The expected return on assets assumption was decreased by 75 basis points to 5.50% which increased the postretirement welfare cost.
- The base mortality scale has been updated from RP-2014, factored to 2006, to Pri-2012 (using contingent survivor tables only after retiree death) and the mortality improvement scale has been updated from a modified version of MP-2018 adjusted to reflect 75% of the long-term improvement rates to a modified version of MP-2019 adjusted to reflect 75% of the long-term improvement rates. These two mortality assumption changes each decreased the postretirement welfare cost.
- The ultimate medical and prescription cost trend rate assumption was updated from reaching 5.00% in 2024 to 4.50% in 2026 which decreased the postretirement welfare cost.
- The termination, retirement, participation, persistency and salary increase (affects a small group of grandfathered active employees) assumptions were updated to reflect the experience study performed in 2019. Overall, these assumption changes combined increased postretirement welfare benefit cost.
- The plan was amended to increase dependent and surviving spouse contributions for most spouses which decreased the postretirement welfare benefit cost.

## Basis for valuation

Appendix A summarizes the assumptions and methods used in the valuation. Appendix B summarizes our understanding of the principal provisions of the plan being valued.

### Changes in Assumptions

- Discount rate was changed from 4.30% to 3.30%.
- The expected return on assets assumption was decreased by 75 basis points to 5.50%
- Per capita claims costs were updated to reflect 2018 retiree claims experience and the elimination of the Health Insurance Fee in 2021.
- The medical and prescription drug trend rate assumption was changed to extend the 0.25% annual reductions two additional years before reaching a 4.50% ultimate rate in 2026.
- The mortality base tabled was updated to Pri-2012 (using contingent survivor tables only after retiree death).
- The mortality improvement projection was updated to the MP-2019 scale, adjusted to reflect 75% of the long-term improvement rates.
- The termination, retirement, participation, persistency and salary increase (affects a small group of grandfathered active employees) assumptions were updated based on the experience study performed in 2019.

**Changes in Methods**

None.

**Changes in Benefits Valued**

The valuation reflects the amendment to increase dependent and surviving spouse contributions for most spouses which decreased the postretirement welfare benefit cost. This amendment was first recognized at December 31, 2019 year-end disclosure and first included in expense for FY2020.

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# 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 AEP and other persons or organizations designated by AEP. See the Sources of Data and Other Information section of Appendix A for further details. We have relied on all the data and information provided as 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 and concurrence by 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 AEP, may produce materially different results that could require that a revised report be issued.

## Measurement of benefit obligations, plan assets and balance sheet adjustments

### Census date/measurement date

The measurement date is January 1, 2020. The benefit obligations were measured as of January 1, 2020 and are based on participant data as of the census date, January 1, 2020.

### Plan assets and balance sheet adjustments

Information about the fair value of plan assets and the general ledger account balances for the other postretirement benefit plan cost at December 31, 2019, which reflect the expected funded status of the plans before adjustment to reflect the funded status based on the year-end measurements, and differences between the expected Medicare Part D subsidies and amounts received during the year was reviewed for reasonableness and consistency, but no audit was performed.

Accumulated other comprehensive (income)/loss amounts shown in the report are shown prior to adjustment for tax effects. Any tax effects in AOCI should be determined by AEP in consultation with its tax advisors and independent accountants.

## Effects of Health Care Legislation

This valuation reflects our understanding of the relevant provisions of the Patient Protection and Affordable Care Act (PPACA) and Health Care and Education Reconciliation Act (HCERA) as amended by subsequent legislation. The IRS has yet to issue final guidance with respect to many aspects of these laws. It is possible that future guidance may conflict with our understanding of these laws based on currently available guidance and could therefore affect the results shown in this report. The valuation does not anticipate the effects of any possible future changes to PPACA or HCERA.

## Assumptions and methods under the Internal Revenue Code for contribution limit purposes

The actuarial assumptions and methods employed in the development of the contribution limits have been selected by the plan sponsor, with the concurrence of Willis Towers Watson. The Internal Revenue Code requires the use of reasonable assumptions (taking into account the experience of the plan and reasonable expectations) which, in combination, offer the actuary's best estimate of anticipated experience under the plan. We believe that the assumptions used in our valuation are reasonable and appropriate for the purposes for which they have been used.

## Assumptions and methods under U.S. GAAP

As required by U.S. GAAP, the actuarial assumptions and methods employed in the development of the other postretirement benefit cost and other financial reporting have been selected by AEP. Willis Towers Watson has concurred with these assumptions and methods, except for the expected rate of return on plan assets selected as of January 1, 2020. Evaluation of the expected return assumption was outside the scope of Willis Towers Watson's assignment and would have required substantial additional work that we were not engaged to perform. U.S. GAAP requires that each significant assumption "individually represent the best estimate of a particular future event."

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.

A summary of the assumptions, methods and sources of data and other information used is provided in Appendix A. Note that any subsequent changes in methods or assumptions for the January 1, 2020 measurement date will change the results shown in this report.

## Nature of actuarial calculations

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. The effects of certain plan provisions may be approximated or determined to be insignificant and therefore not valued. 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.

See Basis for valuation in Section 1 above for a discussion of any material events that have occurred after the valuation date that are not reflected in this valuation.

## Limitations on use

This report is provided subject to the terms set out herein and in our Master Consulting Services Agreement dated July 29, 2004 and any accompanying or referenced terms and conditions.

The information contained in this report was prepared for the internal use of AEP and its independent accountants in connection with our actuarial valuation of the other postretirement benefit plan as described in Purposes of Valuation above. It is not intended for and may not be used for other purposes, and we accept no responsibility or liability in this regard. AEP may distribute this actuarial valuation report to the appropriate authorities who have the legal right to require AEP to provide them this report, in which case AEP 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 are members of the Society of Actuaries and meet the “Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States” relating to other postretirement benefit plans. Our objectivity is not impaired by any relationship between the plan sponsor and our employer, Willis Towers Watson US LLC.



Martin P. Franzinger, ASA, MAAA  
NA Health & Benefits Consulting Actuary  
Pricing Specialist



Chad M. Greenwalt, FSA, EA  
Director, Retirement  
Valuation Actuary



Joseph A. Perko, FSA, EA, MAAA  
Director, Retirement  
Valuation Actuary

The Pricing Specialist 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.).

Willis Towers Watson US LLC

April 2020

<http://natct.internal.towerswatson.com/clients/604598/AEP2020Valuations/Documents/Non-UMWA Report 2020.docx>

## Section 2: Actuarial exhibits

### 2.1 Balance sheet asset/(liability)

All monetary amounts shown in U.S. Dollars

Measurement Date	01/01/2020	01/01/2019
<b>A Development of Balance Sheet Asset/(Liability)<sup>1</sup></b>		
1 Accumulated postretirement benefit obligation (APBO)	1,167,231,750	1,126,652,189
2 Fair value of assets (FVA)	1,747,344,491	1,510,044,948
3 Net balance sheet asset/(liability)	580,112,741	383,392,759
<b>B Current and Noncurrent Allocation</b>		
1 Noncurrent assets	580,112,741	383,392,759
2 Current liabilities	0	0
3 Noncurrent liabilities	0	0
4 Net balance sheet asset/(liability)	580,112,741	383,392,759
<b>C Accumulated Other Comprehensive (Income)/Loss</b>		
1 Net transition obligation/(asset)	0	0
2 Net prior service cost/(credit)	(285,461,153)	(343,305,273)
3 Net loss/(gain)	239,597,249	410,564,569
4 Accumulated other comprehensive (income)/loss <sup>2</sup>	(45,863,904)	67,259,296
<b>D Assumptions and Dates<sup>3</sup></b>		
1 Discount rate	3.30%	4.30%
2 Rate of compensation/salary increase	Rates vary by age from 3.5% to 11.5%	Rates vary by age from 3.5% to 12.0%
3 Current health care cost trend rate	6.00%	6.25%
4 Ultimate health care cost trend rate	4.50%	5.00%
5 Year of ultimate trend rate	2026	2024
6 Census date	January 1, 2020	January 1, 2019

<sup>1</sup> Whether the amounts in this table that differ from those disclosed at year-end must be disclosed in subsequent interim financial statements should be determined.

<sup>2</sup> Amount shown is pre-tax and should be adjusted by plan sponsor for tax effects.

<sup>3</sup> Rates are expressed on an annual basis where applicable.

## 2.2 Summary and comparison of postretirement benefit cost and cash flows

All monetary amounts shown in U.S. Dollars

Fiscal Year Ending	12/31/2020	12/31/2019
<b>A Total Postretirement Benefit Cost</b>		
1 Employer service cost	9,425,699	8,879,155
2 Interest cost	37,395,768	47,017,232
3 Expected return on assets	(93,726,760)	(91,758,415)
4 Subtotal	(46,905,293)	(35,862,028)
5 Net prior service cost/(credit) amortization	(69,726,760)	(68,626,236)
6 Net loss/(gain) amortization	5,955,981	21,511,881
7 Transition obligation/(asset) amortization	0	0
8 Amortization subtotal	(63,770,844)	(47,114,355)
9 Net periodic postretirement benefit cost/(income)	(110,676,137)	(82,976,383)
<b>B Assumptions<sup>1</sup></b>		
1 Discount rate	3.30%	4.30%
2 Long-term rate of return on assets	5.50%	6.25%
3 Rate of compensation/salary increase	Rates vary by age from 3.5% to 11.5%	Rates vary by age from 3.5% to 12.0%
4 Current health care cost trend rate	6.00%	6.25%
5 Ultimate health care cost trend rate	4.50%	5.00%
6 Year ultimate trend rate is expected	2026	2024
<b>C Census Date</b>	January 1, 2020	January 1, 2019
<b>D Assets at Beginning of Year</b>		
1 Fair market value	1,747,344,491	1,510,044,948
<b>E Cash Flow</b>		
	<b>Expected</b>	<b>Actual</b>
1 Employer contributions	898,275 <sup>2</sup>	940,432
2 Plan participants' contributions	39,848,084	35,558,734
3 Benefits paid from plan assets	127,463,930	110,060,479
4 Expected Medicare retiree drug subsidy on current year benefit payments	(41,071)	(320,027)

<sup>1</sup> These assumptions were used to calculate the Net Postretirement Benefit Cost/ (Income) as of the beginning of the year. Rates are expressed on an annual basis where applicable. For assumptions used for interim measurement periods, if any, refer to Appendix A.

<sup>2</sup> Expected net claims for key employees to be paid directly by AEP in 2020.

## 2.3 Detailed results for postretirement welfare cost and funded position

All monetary amounts shown in U.S. Dollars

Detailed results		01/01/2020	01/01/2019
<b>A Service Cost</b>			
1	Medical	6,921,858	6,812,988
2	Life insurance	2,503,841	2,066,167
3	Dental	0	0
4	Total	9,425,699	8,879,155
<b>B Accumulated Postretirement Benefit Obligation [APBO]</b>			
1	Medical:		
a	Participants currently receiving benefits	521,799,315	549,649,364
b	Fully eligible active participants	58,852,747	57,101,030
c	Other participants	151,443,341	147,139,121
d	Total	732,095,403	753,889,515
2	Life insurance:		
a	Participants currently receiving benefits	338,838,582	292,634,491
b	Fully eligible active participants	27,871,692	23,286,051
c	Other participants	55,695,808	45,609,396
d	Total	422,406,082	361,529,938
3	Dental:		
a	Participants currently receiving benefits	12,619,922	11,032,704
b	Fully eligible active participants	110,343	200,032
c	Other participants	0	0
d	Total	12,730,265	11,232,736
4	All Benefits:		
a	Participants currently receiving benefits	873,257,819	853,316,559
b	Fully eligible active participants	86,834,782	80,587,113
c	Other participants	207,139,149	192,748,517
d	Total	1,167,231,750	1,126,652,189
<b>C Assets</b>			
1	Fair value [FV]	1,747,344,491	1,510,044,948
<b>D Funded Position</b>			
1	Overfunded (underfunded) APBO	580,112,741	383,392,759
2	APBO funded percentage	149.7%	134.0%
<b>E Amounts in Accumulated Other Comprehensive Income</b>			
1	Prior service cost (credit)	(285,461,153)	(343,305,273)
2	Net actuarial loss (gain)	239,597,249	410,564,569
3	Total	(45,863,904)	67,259,296
<b>F Effect of Change in Health Care Cost Trend Rate</b>			
1	One-percentage-point increase:		
a	Sum of service cost and interest cost	391,436	704,218
b	APBO	21,960,079	23,933,611
2	One-percentage-point decrease:		
a	Sum of service cost and interest cost	(480,704)	(592,985)
b	APBO	(22,963,932)	(21,889,758)

## 2.4 ASC 965 (plan reporting) information

All monetary amounts shown in U.S. Dollars

Summary of Present Value of Benefits		01/01/2020	01/01/2019
<b>A Medical (ignoring Retiree Drug Subsidy)</b>			
1	Current retirees	522,053,158	549,896,747
2	Active participants fully eligible for benefits	58,852,747	57,101,030
3	Other active participants	151,443,341	147,139,121
4	Total	732,349,246	754,136,898
<b>B Life Insurance</b>			
1	Current retirees	338,838,582	292,634,491
2	Active participants fully eligible for benefits	27,871,692	23,286,051
3	Other active participants	55,695,808	45,609,396
4	Total	422,406,082	361,529,938
<b>C Dental</b>			
1	Current retirees	12,619,922	11,032,704
2	Active participants fully eligible for benefits	110,343	200,032
3	Other active participants	0	0
4	Total	12,730,265	11,232,736
<b>D Total (ignoring Retiree Drug Subsidy)</b>			
1	Current retirees	873,511,662	853,563,942
2	Active participants fully eligible for benefits	86,834,782	80,587,113
3	Other active participants	207,139,149	192,748,517
4	Total	1,167,485,593	1,126,899,572

### Actuarial assumptions and methods

The key actuarial assumptions used for plan reporting calculations are the same as those used to determine the postretirement welfare cost and are shown in the Actuarial Assumptions and Methods section, except that the Retiree Drug Subsidy (RDS) associated with Medicare Part D is not reflected. For the prior valuation, a discount rate of 4.30% was used. The same plan provisions shown in Appendix B were used to determine the present value of accumulated benefits.

Reconciliation of Present Value of Benefits	Plan Year 2019	Plan Year 2018
<b>A Medical (ignoring Retiree Drug Subsidy)</b>		
1 Benefit obligation, beginning of year	754,136,898	844,332,790
2 Service cost	6,812,988	7,950,981
3 Interest cost	31,318,409	29,438,598
4 Participant contributions	27,587,945	29,473,895
5 Net actuarial (gain)/loss - experience	(4,485,117)	20,779,750
6 Net actuarial (gain)/loss - assumptions	13,750,160	(70,226,639)
7 Plan amendments	(10,826,415)	0
8 Gross benefits paid	(85,945,622)	(107,612,477)
9 Benefit obligation, end of year	732,349,246	754,136,898
<b>B Life Insurance</b>		
1 Benefit obligation, beginning of year	361,529,938	394,362,599
2 Service cost	2,066,167	2,682,496
3 Interest cost	15,247,720	13,980,016
4 Participant contributions	939,095	1,130,820
5 Net actuarial (gain)/loss - experience	2,109,136	(1,134,058)
6 Net actuarial (gain)/loss - assumptions	56,396,227	(34,551,137)
7 Plan amendments	45,297	0
8 Gross benefits paid	(15,927,498)	(14,940,798)
9 Benefit obligation, end of year	422,406,082	361,529,938
<b>C Dental</b>		
1 Benefit obligation, beginning of year	11,232,736	12,869,841
2 Service cost	0	0
3 Interest cost	460,852	443,660
4 Participant contributions	7,031,694	5,908,260
5 Net actuarial (gain)/loss - experience	1,630,051	(126,179)
6 Net actuarial (gain)/loss - assumptions	661,551	(913,145)
7 Plan amendments	(99,260)	0
8 Gross benefits paid	(8,187,359)	(6,949,701)
9 Benefit obligation, end of year	12,730,265	11,232,736
<b>D Total (ignoring Retiree Drug Subsidy)</b>		
1 Benefit obligation, beginning of year	1,126,899,572	1,251,565,230
2 Service cost	8,879,155	10,633,477
3 Interest cost	47,026,981	43,862,274
4 Participant contributions	35,558,734	36,512,975
5 Net actuarial (gain)/loss - experience	(745,930)	19,519,513
6 Net actuarial (gain)/loss - assumptions	70,807,938	(105,690,921)
7 Plan amendments	(10,880,378)	0
8 Gross benefits paid	(110,060,479)	(129,502,976)
9 Benefit obligation, end of year	1,167,485,593	1,126,899,572

## 2.5 Basic results for employer contributions - VEBA's

All monetary amounts shown in U.S. Dollars

All Postretirement VEBA's	Estimated December 31, 2020	Actual December 31, 2019
<b>A Qualified Asset Account Limits [QAAL]<sup>1</sup></b>	420,000,000	427,839,008
<b>B Assets</b>		
1 Market value	1,321,000,000	1,291,737,757
2 Unrecognized investment losses (gains)	0	0
3 Actuarial value [AV]	1,321,000,000	1,291,737,757
<b>C Funded Position</b>		
1 Unfunded account limits [QAAL – FV]	(901,000,000)	(863,898,749)
<b>D Employer Contributions</b>		
1 Maximum deductible available <sup>2</sup>	134,000,000	120,806,687
2 Qualified additions		
a Prior years' carryover	0	0
b Current year additions	0	0
c Total deductions available [a + b]	0	0
3 Other non-deductible current year additions	0	0
4 Total additions [2.c + 3]	0	0
a Life insurance VEBA	0	0
b Union medical and dental VEBA's	0	0
c Non-union medical and dental VEBA's	0	0

<sup>1</sup> Includes the present value of projected benefits for the union retiree medical VEBA.

<sup>2</sup> Includes amounts not contributed to trusts with capacity at year-end.

## 2.6 VEBA deduction limits

All monetary amounts shown in U.S. Dollars

Retiree Life Insurance		2019	2018
<b>A Qualified Asset Account Limit (QAAL)</b>			
1	December 31 actuarial accrued liability	231,485,487	213,155,460
2	Unrecognized liability	0	0
3	QAAL	231,485,487	213,155,460
<b>B Assets</b>			
1	Market value as of December 31	110,678,800	100,972,420
2	Unrecognized investment losses (gains)	0	0
3	Actuarial value [AV]	110,678,800	100,972,420
<b>C Funded position</b>			
1	Unfunded account limit [QAAL - AV]	120,806,687	112,183,040
2	Contributions received in trust, but not yet deducted		
	Through 2012	0	0
	2013	0	0
	2014	0	0
	2015	0	0
	2016	0	0
	2017	0	0
	2018	0	0
	2019	0	0
	Total	0	0
<b>D Employer deductions for contributions to VEBAs</b>			
1	Maximum deduction available <sup>1</sup> [C.1 + Total of C.2]	120,806,687	112,183,040
2	Qualified additions		
a	Prior years' carryover	0	0
b	Current year additions	0	0
c	Total deductions available [a + b]	0	0
3	Other non-deductible current year additions	0	0
4	Total additions [2.c + 3]	0	0

<sup>1</sup> Includes amounts not contributed.

All monetary amounts shown in U.S. Dollars

Union Medical and Dental		2019	2018
<b>A Qualified Asset Account Limit (QAAL)</b>			
1	December 31 present value of projected benefits	151,119,490	155,557,172
2	Unrecognized liability	0	0
3	QAAL	151,119,490	155,557,172
<b>B Assets</b>			
1	Market value as of December 31	535,465,709	452,818,363
2	Unrecognized investment losses (gains)	0	0
3	Actuarial value [AV]	535,465,709	452,818,363
<b>C Funded position</b>			
1	Unfunded account limit [QAAL - AV]	(384,346,219)	(297,261,191)
2	Contributions received in trust, but not yet deducted		
	Through 2012	0	0
	2013	0	0
	2014	0	0
	2015	0	0
	2016	0	0
	2017	0	0
	2018	0	1,569,839
	2019	0	0
	Total	0	1,569,839
<b>D Employer deductions for contributions to VEBAs</b>			
1	Maximum deduction available <sup>1</sup> [greater of C.1+C.2 and 0]	0	0
2	Qualified additions		
	a Prior years' carryover	0	0
	b Current year additions	0	1,569,839
	c Total deductions available [a + b]	0	1,569,839
3	Other non-deductible current year additions	0	0
4	Total additions [2.c + 3]	0	1,569,839

<sup>1</sup> Includes amounts not contributed.

All monetary amounts shown in U.S. Dollars

<b>Non-Union Retiree Medical and Dental</b>		<b>2019</b>	<b>2018</b>
<b>A Qualified Asset Account Limit (QAAL)</b>			
1	December 31 actuarial accrued liability	45,234,031	48,944,990
2	Unrecognized liability	0	0
3	QAAL	45,234,031	48,944,990
<b>B Assets</b>			
1	Market value as of December 31	645,593,248	544,348,347
2	Unrecognized investment losses (gains)	0	0
3	Actuarial value [AV]	645,593,248	544,348,347
<b>C Funded position</b>			
1	Unfunded account limit [QAAL - AV]	(600,359,217)	(495,403,357)
2	Contributions received in trust, but not yet deducted		
	Through 2012	285,901,694	285,901,694
	2013	0	0
	2014	0	0
	2015	0	0
	2016	0	0
	2017	0	0
	2018	10,082,000	10,082,000
	2019	0	0
	Total	295,983,694	295,983,694
<b>D Employer deductions for contributions to VEBAs</b>			
1	Maximum deduction available <sup>1</sup> [greater of C.1+C.2 and 0]	0	0
2	Qualified additions		
	a Prior years' carryover	0	0
	b Current year additions	0	0
	c Total deductions available [a + b]	0	0
3	Other non-deductible current year additions	0	10,082,000
4	Total additions [2.c + 3]	0	10,082,000

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<sup>1</sup> Includes amounts not contributed.

## 2.7 Cumulative nondeductible contributions

All monetary amounts shown in U.S. Dollars

### Non-Union Retiree Medical and Dental VEBAs

	Contributions Made by December 31, 2019, but Not Deducted as of December 31, 2018	Deductible in 2019	Remaining Nondeductible Contributions as of December 31, 2019
Through 2008	\$0	\$0	\$0
2009	105,440,603	0	105,440,603
2010	73,467,453	0	73,467,453
2011	38,701,148	0	38,701,148
2012	68,292,490	0	68,292,490
2013	0	0	0
2014	0	0	0
2015	0	0	0
2016	0	0	0
2017	0	0	0
2018	10,082,000	0	10,082,000
2019	0	0	0
<b>Total</b>	<b>\$295,983,694</b>	<b>\$0</b>	<b>\$295,983,694</b>

### Retiree Life Insurance VEBAs

	Contributions Made by December 31, 2019, but Not Deducted as of December 31, 2018	Deductible in 2019	Remaining Nondeductible Contributions as of December 31, 2019
Through 2008	\$0	\$0	\$0
2009	0	0	0
2010	0	0	0
2011	0	0	0
2012	0	0	0
2013	0	0	0
2014	0	0	0
2015	0	0	0
2016	0	0	0
2017	0	0	0
2018	0	0	0
2019	0	0	0
<b>Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## 2.8 Development of maximum deductible contribution – 401(h)

All monetary amounts shown in U.S. Dollars

### Plan Year Beginning January 1, 2020

#### A Development of Maximum Deductible Contribution

1	Present value of projected benefits	469,192,554
2	Fair value of assets	455,606,734
3	Unfunded surplus [1 - 2]	13,585,820
4	Average present value of future service	8
5	Preliminary maximum deductible contribution	
a	10% of unfunded surplus [10% x A.3]	1,358,582
b	Aggregate normal cost [A.3 / A.4]	1,610,777
c	Greater of A.5.a, A.5.b and 0	1,610,777
6	Preliminary maximum 2019 contribution [1.05 x A.5.c]	1,691,316
7	Subordination test (development shown below)	144,098,542
8	Maximum deductible contribution ignoring expenses [lesser of A.6 and A.7]	1,691,316
9	Total trust expenses paid from 401(h) account during 2019	546,913
10	Maximum deductible contribution including expenses [A.8 + A.9]	2,238,229

#### B Subordination Test

Year-by-year minimum of actual pension plan contribution and pension plan normal cost with interest

	Year	West Plan	East Plan	Combined Plan
	1992	9,766,169	N/A	N/A
	1993	22,392,743	N/A	N/A
	1994	21,208,326	N/A	N/A
	1995	21,683,436	N/A	N/A
	1996	20,271,648	N/A	N/A
	1997 - 2002	0	N/A	N/A
	2003	19,197,145	39,165,054 <sup>1</sup>	N/A
	2004	18,614,338	56,614,811	N/A
	2005	16,222,550	55,872,817	N/A
	2006	0	0	N/A
	2007	0	0	N/A
	2008	0	0	0
	2009	N/A	N/A	100,540,448
	2010	N/A	N/A	125,586,018
	2011	N/A	N/A	62,751,522
	2012	N/A	N/A	0
	2013	N/A	N/A	65,249,050
	2014	N/A	N/A	0
	2015	N/A	N/A	81,674,776
	2016	N/A	N/A	84,696,307
	2017	N/A	N/A	93,590,761
	2018	N/A	N/A	0
	2019	N/A	N/A	95,529,000
	Cumulative pension contributions not for past service	149,356,355	151,652,682	1,010,626,920
		x 1/3	x 1/3	x 1/3
		49,785,452	50,550,894	336,875,640
	Cumulative 401(h) contributions before plan year 2020	49,785,452	50,550,894	192,777,098
	Subordination limit	0	0	144,098,542

<sup>1</sup> Includes only portion of normal cost and contributions after 401(h) account adoption for indicated year

## 2.9 Expected benefit disbursements, administrative expenses, and participant contributions

All monetary amounts shown in U.S. Dollars

	January 1, 2020	January 1, 2019
<b>A Medical and Dental</b>		
1 Gross disbursements	106,746,989	101,184,040
2 Participant contributions	(38,706,663)	(34,219,174)
3 Net disbursements	68,040,326	66,964,866
<b>B Life Insurance</b>		
1 Gross disbursements	20,758,017	19,348,158
2 Participant contributions	(1,141,421)	(1,160,820)
3 Net disbursements	19,616,596	18,187,338
<b>C Gross without RDS</b>		
1 Gross disbursements	127,505,006	120,532,198
2 Participant contributions	(39,848,084)	(35,379,994)
3 Net disbursements	87,656,922	85,152,204
<b>D RDS<sup>1</sup></b>		
1 Gross disbursements	(41,076)	(41,751)
2 Participant contributions	0	0
3 Net disbursements	(41,076)	(41,751)
<b>E Net with RDS</b>		
1 Gross disbursements	127,463,930	120,490,447
2 Participant contributions	(39,848,084)	(35,379,994)
3 Net disbursements	87,615,846	85,110,453

<sup>1</sup> 2019-2020 RDS payments expected to be received in 2021-2022.

# Section 3: Data exhibits

## 3.1 Plan participant data

All monetary amounts shown in U.S. Dollars

Census Date	01/01/2020	01/01/2019
<b>A Participating Employees</b>		
1 Number		
a Fully eligible	1,891	1,979
b Other	9,469	10,460
c Total participating employees	11,360	12,439
2 Average age (years)	51.06	50.70
3 Average credited service (years)	21.95	21.51
4 Average future working life (years)		
a to full retirement age	10.890	12.070
b to full eligibility age	10.246	10.976
<b>B Retirees and Surviving Spouses</b>		
1 Retirees and Surviving Spouses		
a Number under 65	3,060	3,143
b Number 65 and older	14,638	14,377
c Total <sup>1</sup>	17,698	17,520
d Average age (years)	73.85	73.79
e. Age Distribution at January 1, 2020		
Age	Number	
Under 55	98	
55-59	613	
60-64	2,349	
65-69	3,468	
70-74	3,935	
75-79	2,807	
80-84	1,971	
85 and over	2,457	
<b>C Dependents</b>		
1 Number	8,302	8,195
2 Average Age	69.55	69.46
3 Age Distribution at January 1, 2020		
Age	Number	
Under 55	221	
55-59	669	
60-64	1,699	
65-69	1,862	
70-74	1,843	
75-79	1,073	
80-84	594	
85 and over	341	

<sup>1</sup> Includes 325 disabled participants in 2020 and 327 disabled participants in 2019. These participants were not included in the calculation of the other data statistics in this section.

### 3.2 Age and service distribution of participating employees

All monetary amounts shown in U.S. Dollars

Attained Age	Attained Years of Credited Service and Number								Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	
Under 25	0	1	0	0	0	0	0	0	1
25-29	0	130	8	0	0	0	0	0	138
30-34	0	381	305	8	0	0	0	0	694
35-39	0	310	661	193	7	0	0	0	1,171
40-44	0	232	598	398	124	6	0	0	1,358
45-49	0	185	453	348	279	114	4	0	1,383
50-54	0	125	357	259	242	401	303	16	1,703
55-59	0	85	253	210	246	303	717	728	2,542
60-64	0	53	138	122	109	171	288	1,014	1,895
65-69	0	23	37	32	20	34	39	229	414
70 & over	0	7	10	8	2	4	7	23	61
<b>Total</b>	<b>0</b>	<b>1,532</b>	<b>2,820</b>	<b>1,578</b>	<b>1,029</b>	<b>1,033</b>	<b>1,358</b>	<b>2,010</b>	<b>11,360</b>
Average: Age	51.06	Number of Participants:			Fully eligible	1,891	Males	9,248	
Service	21.95				Other	9,469	Females	2,112	

Census data as of January 1, 2020

# Appendix A: Statement of actuarial assumptions, methods and data sources

## Actuarial Assumptions and Methods — Postretirement Welfare Cost and Funding/Tax Deductions Based on Plan Year beginning January 1, 2020

### Economic Assumptions

	Postretirement Welfare Cost	Plan Reporting	Employer Contributions
Discount rate <sup>1</sup>	3.30%	3.30%	N/A
Rates of return on assets, pre-tax: <sup>1</sup>			
■ 401(h) accounts	N/A	N/A	5.00%
■ Life insurance	N/A	N/A	7.50%
■ Union medical/dental	N/A	N/A	5.50%
■ Non-union medical/dental	N/A	N/A	5.25%
■ Aggregate	5.50%	N/A	N/A
Annual rates of compensation increase			
■ Representative rates			
	<b>Age</b>	<b>Rate</b>	
	< 25	11.50%	
	25 – 29	8.50%	
	30 – 34	7.00%	
	35 – 39	6.00%	
	40 – 44	5.00%	
	45 – 49	4.50%	
	50 – 54	4.00%	
	55 – 59	3.75%	
	60 – 64	3.50%	
	65 – 69	3.25%	
	70+	3.00%	
■ Weighted average		4.85%	
■ Medical cost trend rate <sup>2</sup>	2020	6.00%	
	2021	5.75%	
	2022	5.50%	
	2023	5.25%	
	2024	5.00%	
	2025	4.75%	
	2026+	4.50%	
Dental cost trend rate <sup>2</sup>	2020+	3.00%	
Medicare covered charges trend rate	Same as medical cost trend		

Retiree contribution trend rate Same as medical cost trend. For capped retirees, future retiree contributions are developed based on expected gross costs compared to the applicable cap.

<sup>1</sup> Only discount rate and asset return assumptions vary between the reporting standards. All other assumptions are consistent throughout.

<sup>2</sup> 0% trend assumed for non-union VEBA account limit.

**Participation Assumptions**

Inclusion Date	The valuation date coincident with or next following the date on which the employee is hired.	
New or rehired employees	It was assumed there will be no new or rehired employees.	
	<i>Current Retirees</i>	<i>Future Retirees</i>
Participation	Based on valuation census data.	80% in 2020-2022 with the rate decreasing by 2% annually to an ultimate rate of 60% in 2032.
Persistency	Capped retirees will drop coverage at a rate of 0.85% annually for 2020-2021, 2% for 2022, 3% for 2023, 4% for 2024 and beyond; Non-capped retirees will drop coverage at a rate of 0.85% annually;	Same as current retirees
Percentage of retiree with spousal coverage	Based on valuation census data.	72.6% for males, 52.6% for females.
Spouse age	Based on valuation census data.	Wife three years younger than husband.

**Demographic Assumptions**

Mortality Base mortality rates are derived from the Pri-2012 headcount weighted mortality table without collar adjustments.  
Mortality improvements are projected forward on a generational basis using an adjusted version of Scale MP-2019. The adjustment reflects 75% of the long-term improvement rates.

Disabled mortality (through age 65) Rates vary by age and sex.

Representative rates:

Age	Males	Females
30	1.05%	0.54%
40	1.52	1.00
50	2.23	1.51
60	2.62	1.96

## Disability

Rates apply to employees not eligible to retire and vary by age and sex.

Representative rates:

Percentage becoming disabled during the year		
Age	Males	Females
20	0.060%	0.090%
30	0.060	0.090
40	0.074	0.110
50	0.178	0.270
60	0.690	1.035

Termination  
(not due to disability  
or retirement)

Rates apply to employees not eligible to retire and vary by age.

Representative rates:

Percentage leaving during the year	
Attained vested service	Rate
< 3	7.00%
3 – 4	6.00%
5 – 9	5.00%
10 – 14	4.00%
15 – 19	2.50%
20 +	1.50%

## Retirement

Rates vary by age.

Representative rates:

Percentage retiring during the year	
Age	Rate
55 – 58	4.00%
59	6.00%
60	7.50%
61	9.00%
62 – 64	16.00%
65 – 67	25.00%
68 – 69	20.00%
70+	100.00%

## 2020 Per Capita Claims Costs

### Medical

#### ■ Prior to age 65<sup>1</sup>

Age	HSA Basic	HSA Plus	HRA
< 29	3,419	3,765	4,104
30 – 34	4,183	4,606	5,021
35 – 39	4,423	4,871	5,310
40 – 44	4,838	5,327	5,807
45 – 49	5,583	6,147	6,701
50 – 54	6,855	7,548	8,228
55 – 59	8,231	9,063	9,879
60 – 64	10,185	11,215	12,225
Average	9,503	10,464	11,406

#### ■ Age 65 and after<sup>2</sup>

Age	Medicare Select	Medicare Standard	CSP
65 – 69	3,405	2,516	2,179
70 – 74	3,750	2,746	2,413
75 – 79	3,970	2,858	2,596
80 – 84	4,013	2,850	2,675
85 – 89	3,863	2,688	2,670
90 – 94	3,451	2,349	2,501
≥ 95	2,937	1,927	2,341
Average	3,746	2,673	2,567

#### ■ Medicare Part D - RDS

Age	Medicare Advantage	CSP
65 – 69	N/A	(310)
70 – 74	N/A	(337)
75 – 79	N/A	(348)
80 – 84	N/A	(345)
85 – 89	N/A	(322)
90 – 94	N/A	(278)
≥ 95	N/A	(223)
Average	N/A	(303)

#### ■ Medicare Part D - Employer Group Waiver Plan (EGWP) for Medicare Advantage plans

Age	CMS Direct Payments & Catastrophic Reinsurance	Manufacturer's Coverage Gap Discount
65 – 69	(427)	(555)
70 – 74	(464)	(603)
75 – 79	(479)	(622)
80 – 84	(474)	(616)
85 – 89	(442)	(575)
90 – 94	(382)	(497)
≥ 95	(307)	(399)
Average	(451)	(586)

### Dental

416

<sup>1</sup> Pre-65 per capita claims costs do not include the 5% adjustment for potential dependent children covered under the plan.

<sup>2</sup> Medicare Select and Medicare Standard claims costs shown above reflect the removal of Health Insurance Fee (HIF) which was eliminated through legislation signed December 2019. These rates were used to project future rates with the trend assumption. The obligations and projected cash flow also incorporated the HIF being added back for 2020 only.

Administrative expenses                      Included in claims costs shown above.

### Additional Assumptions

Excise tax    Retiree excise tax was eliminated due to legislation signed December 2019.

Timing of benefit payments                      Benefit payments are assumed to be made uniformly throughout the year and on average at mid-year.

### Methods

Census date    January 1, 2020

Measurement date                                      January 1, 2020

Service cost and APBO                              Costs are determined using the Projected Unit Credit Cost Method. The annual service cost is equal to the present value of the portion of the projected benefit attributable to service during the upcoming year, and the Accumulated Postretirement Benefit Obligation (APBO) is equal to the present value of the portion of the projected benefit attributable to service before the valuation date. Service from hire date through the expected full eligibility date is counted in allocating costs.

Market-related value of assets                      The fair value of assets on the measurement date.

Amortization of unamortized amounts:

Prior service cost (credit)                              Increase in APBO resulting from a plan amendment is amortized on a straight-line basis over the average expected remaining service of active participants expected to benefit under the plan. Amortization of net prior service cost/(credit) resulting from a plan change is included as a component of Net Periodic Postretirement Benefit Cost/(Income) in the year first recognized and every year thereafter until such time as it is fully amortized. The annual amortization payment is determined in the first year as the increase in APBO due to the plan change divided by the average remaining service period to full eligibility for participating employees expected to receive benefits under the Plan. Reductions in APBO first reduce any unrecognized prior service cost; any remaining amount is amortized on a straight-line basis as described above.

Net loss (gain)    Amortization of the net gain or loss resulting from experience different from that assumed and from changes in assumptions (excluding asset gains and losses not yet reflected in market-related value) is included as a component of Net Periodic Postretirement Benefit Cost/(Income) for a year.

Net loss (gain) in excess of 10% of the greater of APBO or the market-related value of assets is amortized on a straight-line basis over the average expected remaining service of active participants expected to benefit under the plan.

## ASC 965 (formerly SOP 92-6)

- Present value of benefits
 

Present value of benefits is equal to the present value of the portion of the projected benefit attributable to service before the valuation date. Service from hire date through the expected full eligibility date is counted in allocating costs.
- Funding policy
 

AEP's funding policy is to contribute an amount equal to the postretirement welfare cost plus retiree drug subsidy payments received (the sum of which can be no less than zero). AEP maximizes its contribution to the 401(h) account and contributes the remainder to the VEBAs.
- Benefits Not Valued
 

All benefits described in the Plan Provisions section of this report were valued. Life insurance benefits in excess of \$50,000 and health care benefits for key employees were not included in determining the maximum deductible contribution. Willis Towers Watson has reviewed the plan provisions with AEP and based on that review is not aware of any significant benefits required to be valued that were not included.
- Change in Assumptions and Methods Since Prior Valuation
  - Per capita claims costs were updated to reflect 2018 retiree claims experience and the elimination of the Health Insurance Fee in 2021.
  - The medical and prescription drug trend rate assumption was changed to extend the 0.25% annual reductions two additional years before reaching a 4.50% ultimate rate in 2026.
  - Discount rate was changed from 4.30% to 3.30%.
  - The expected return on assets assumption was decreased by 75 basis points to 5.50%
  - The mortality base table was updated to Pri-2012.
  - The ultimate medical cost trend rate assumption was updated from reaching 5.00% in 2024 to 4.50% in 2026.
  - The mortality improvement projection was updated to the MP-2019 scale, adjusted to reflect 75% of the long-term improvement rates.
  - The termination, retirement, participation, persistency and salary increase assumptions were updated based on the experience study performed in 2019.

## Sources of Data and Other Information

American Electric Power (AEP), through Business Solver, its third party administrator, furnished active and inactive participant data as of January 1, 2020. AEP also provided the accrued postretirement benefit costs and assets information as of December 31, 2019. Health plan vendors furnished the claims cost data. AEP supplied 2018 prescription drug rebates and ESI provided estimated 2020 EGWP payments. Data were reviewed for reasonableness and consistency, but no audit was performed. Based on discussions with the plan sponsor, assumptions or estimates were made when data were not available, and the data were adjusted to reflect any significant events that occurred between the date the data were collected and the measurement date. We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations.

## Assumptions Rationale - Significant Economic Assumptions – Funding and Accounting

Discount rate	As required by U.S. GAAP, the discount rate was chosen by the plan sponsor based on market information on the measurement date.
Interest rate (funding)	The interest rate is the expected rate of return on plan assets, and represents an estimate of future experience for trust asset returns, reflecting the plan's current asset allocation, and current and expected future market conditions.
Expected long-term return on plan assets	We understand that the expected return on assets assumption reflects the plan sponsor's estimate of future experience for trust asset returns, reflecting the plan's current asset allocation and any expected changes during the current plan year, current market conditions and the plan sponsor's expectations for future market conditions.
Rates of increase in:	
<ul style="list-style-type: none"> <li>■ Inflation</li> </ul>	Assumptions were selected by the plan sponsor and represent a best estimate of future experience, based on a combination of market conditions at the measurement date and future expectations consistent with other economic assumptions used.
<ul style="list-style-type: none"> <li>■ Plan administrative expenses</li> </ul>	Administrative expenses are included in per capita claims costs and thus the medical plan trend rate is applied to these expenses.
<ul style="list-style-type: none"> <li>■ Claims cost trend rates</li> </ul>	<p>Assumed increases were chosen by the plan sponsor and, as required by U.S. GAAP, they represent an estimate of future experience, informed by an analysis of recent plan experience, leading to select and ultimate assumed trend rates and reflecting the expected near-term effect of recently enacted plan changes. In setting near term trend rates, other pertinent statistics were considered, including surveys on general medical cost increases. In setting the ultimate trend rate, considerations included assumed GDP growth consistent with the assumed future economic conditions inherent in other economic assumptions chosen by the client at the measurement date.</p> <p>After examining historical variability in trend rates, we believe that the selected assumptions do not significantly conflict with what would be reasonable based on a combination of market conditions at the measurement date and future expectations consistent with other economic assumptions used, other than the discount rate.</p> <p>For the medical VEBA funding limit of the non-bargained group, no future increases in medical costs have been assumed, in accordance with U.S. tax law.</p>
Participant contribution trend rates	In accordance with the substantive plan communicated to participants, participant contributions for non-capped participants are intended to remain a fixed percentage of total plan costs, and thus the trend rates, and the description of the derivation of the trend rates, are the same as for claims costs as shown above.

## Basis for Per Capita Claims Cost Assumptions

- Pre-65 retiree medical rates

Anthem and ESI supplied data on retiree medical and prescription drug claims incurred in 2018 and paid through March 2019. AEP reported prescription drug rebates they received for 2018. Claim experience rates were calculated for medical plans by normalizing claims experience for benefit differences and combining, then dividing combined incurred claims, net of prescription rebates by covered lives and trending forward two years to 2020. Adjustments for minor plan design and network efficiency changes were also made. Finally, administrative expense rates were added to claims cost rates. Claims cost models were developed by age-grading these claims rates over standard Willis Towers Watson morbidity curves for both medical and prescription drugs to develop the quinquennial claims cost models.
- Post-65 retiree medical rates

2020 monthly claim rates were calculated separately for the Medicare Advantage options and CSP Medicare-eligible plans by dividing 2018 incurred claims (Rx only, except for CSP) paid through March 2019 by covered lives and trending forward two years to 2020. Prescription drug claim rates were then multiplied by pricing change factors representing the effect of any pricing and other program changes for 2019 and 2020. Next, 2020 premium rates for new Medicare Advantage plans (without the HIF) were added. Finally, administrative expense rates were added to claims cost rates. The HIF was excluded to provide a basis for projecting post-2020 claims costs using the trend assumption. (Aggregate amounts attributable to the temporary HIF for 2020 were manually added to the valuation results.) Claims cost models were developed separately for medical and prescription drug by age-grading these rates over standard Willis Towers Watson morbidity curves for medical and prescription drugs to develop quinquennial age-banded claims cost models.
- Dental rates

Aetna supplied data on dental claims incurred in 2018 and paid through March 2019. Combined claims experience for retirees was analyzed to derive the 2018 dental claim rates. The single coverage rate was trended to 2020 and administrative costs were added to derive the per capita claims cost assumption.

## Medicare Part D offsets

- RDS

We calibrated our modelling tool to reflect the 2020 cost of the current prescription drug plans for AEP's CSP retirees. The tool employs a continuance table of annual retiree drug utilization levels, developed from analyzing the experience of many large companies, reflecting 1.8 million Medicare-eligible members' experience from 2016.

After the plan-specific benefit provisions have been calibrated to current costs, the Modeler trends costs forward to 2020 at 7.00% per year. Actuarial equivalence was determined using the following two-prong approach outlined in the regulations for Medicare Part D:

  - *Gross Value Test* – The Modeler calculates the value of standard Medicare Part D coverage and compares it to AEP's plan costs. AEP's plans passed this test by being richer than the projected value of standard Medicare part D coverage for these groups.
  - *Net Value Test* – The net value prong of the test compares the value of Standard Part D coverage in 2020 minus the greater of \$392.88 per year (the national average Part D premium) and 25.5% of the gross

value of Part D to the projected 2020 value of AEP coverage minus the average projected 2020 retiree contribution rate. For this purpose, retiree contributions were assumed to apply pro rata between the value of medical benefits and prescription drug benefits.

The tool calculates the average expected value of the employer subsidy in 2020, using the continuance table calibrated to AEP’s CSP plan costs. This produced a 2020 per person employer subsidy of \$303 for CSP, which was then converted to rates that varied by participant age band using Willis Towers Watson’s prescription drug morbidity factors.

- EGWP Estimated plan cost offsets associated with the EGWP arrangement were provided by Express Scripts for direct payments, coverage gap discounts and reinsurance payments. These projections reflected legislative changes that closed the coverage gap for brand drugs in 2020, including the increase in coverage gap discount percentage to 70%. These amounts were converted to rates varying by quinquennial age band using Willis Towers Watson’s standard prescription drug morbidity factors.

**Assumptions Rationale - Significant Demographic Assumptions**

Healthy Mortality	Assumptions were selected by the plan sponsor and, as required by U.S. GAAP, represent a best estimate of future experience.
Disabled Mortality	Assumptions were selected by the plan sponsor and, as required by U.S. GAAP, represent a best estimate of future experience.
Termination	Termination rates are based on a recent demographic study and plan sponsor expectations for the future with periodic monitoring of observed gains and losses caused by termination patterns different than assumed.
Disability	Disability rates are based on plan sponsor expectations for the future with periodic monitoring of observed gains and losses caused by disability patterns different than assumed.
Retirement	Retirement rates are based on a recent demographic study and plan sponsor expectations for the future with periodic monitoring of observed gains and losses caused by retirement patterns different than assumed.
Persistency	Persistency rates are based on a recent demographic study and plan sponsor expectations for the future with periodic monitoring of observed gains and losses caused by persistency patterns different than assumed.
Participation	
<ul style="list-style-type: none"> <li>■ Participants/Spouses</li> </ul>	The assumed coverage rates for participants and spouses reflect historical experience as well as anticipated future reductions in rates due to expected rates of increase in participant contributions and availability of coverage through public exchanges.
<ul style="list-style-type: none"> <li>■ Covered dependents</li> </ul>	The assumed dependent coverage is based on the dependent coverage observed among recent retirees and general population statistics on the marital status of individuals of retirement age.

- Covered Spouse age The assumed age difference for spouses is based on the age difference observed among recent retirees and general population statistics of the age difference for married individuals of retirement age.

### Source of Prescribed Methods

Funding methods The methods used for determining maximum deductible contributions to the 401(h) account and VEBA are chosen from acceptable methods prescribed by law.

# Appendix B: Summary of principal other postretirement benefit plan provisions

## Health Care Benefits

Eligibility	Participants are eligible upon retirement after age 55 with ten years of service or upon attaining age 55 with ten years of service after becoming permanently disabled. If involuntary termination, then eligible after age 50 with ten years of service.  Employees hired on or after January 1, 2014 are not eligible to participate in the plan.
Surviving spouse	After the death of a retiree or active employee eligible to retire, surviving spouses are eligible until death or remarriage. Surviving children are also eligible, subject to the limiting age provision outlined above.
Dependent	Eligible dependents are spouse, unmarried children under age 19 (age 25 if a full-time student) and unmarried disabled children of any age.

### Benefits – Post-65

The AEP Post-65 Medical Plan provides broad medical coverage through two Medicare Advantage plans with \$2,000 annual out-of-pocket maximums. Key differences between the two options offered to retirees are:

	Medicare Select	Medicare Standard
Deductible	\$0	\$200
Coinsurance	5%	20%
In-patient copay	\$250 per stay	\$200 per day (1-5)

Prescription drug benefits are provided under a separate design with the following copayments:

	Generic	Brand Name Formulary	Brand Name Nonformulary
30-day retail	\$10 copay	20% \$20 minimum \$100 maximum	35% \$35 minimum \$200 maximum
90-day retail	\$20 copay	20% \$50 minimum \$200 maximum	35% \$90 minimum \$300 maximum

Prescription drug benefits are also subject to a \$50 deductible and a \$1,000 out-of-pocket maximum per person.

Deductibles and out-of-pocket maximums are assumed to increase over time at approximately the same rate as benefit costs.

### Benefits – Pre-65

Pre-65 retirees can elect coverage under the following plan options:

	HRA	HSA Plus	HSA Basic
Embedded Individual Amounts	None	Out-of-Pocket Maximum only	Deductible & Out-of-Pocket Maximum
Deductible			
■ Individual	\$1,500	\$2,000	\$2,800
■ Two Person	\$2,250	\$3,000	\$5,400
■ Family	\$3,000	\$4,000	\$8,100
AEP Account Seed			
■ Single	\$1,000	\$500	\$0
■ Two Person	\$1,500	\$750	\$0
■ Family	\$2,000	\$1,000	\$0
Coinsurance	85%	85%	90%
Out-of-Pocket Maximum			
■ Individual	\$4,000	\$4,000	\$4,000
■ Two Person	\$6,000	\$6,000	\$8,000
■ Family	\$8,000	\$8,000	\$12,000

Deductibles, account seeds and out-of-pocket maximums are assumed to increase over time at approximately the same rate as benefit costs.

Postretirement contributions Participant contributions are determined as a percentage of plan costs and vary by points (age at retirement plus service) as follows:

<i>Points</i>	<i>Retiree Cost</i>
65-69	46%
70-74	42
75-79	36
80-84	32
85-89	26
90-94	22
95+	20
Grandfathered	20

Spousal coverage requires contribution rates 2% higher than the retiree rates shown in the table above.

For participants retiring on or after January 1, 2013, AEP's subsidy is capped at \$11,500 and \$3,800 times employer cost sharing percentage for pre-65 and post-65 participants, respectively.

For East participants who retired prior to January 1, 1989, and West participants who retired prior to January 1, 1993, no contributions are required.

For East participants who retired on or after January 1, 1989, and West participants who retired on or after January 1, 1993, the 20% "Grandfathered" contributions are in effect if they retired by December 31, 2000, or attained age 50 and had ten or more years of service with the company on that date. The percentages described above are applied to plan costs that differ from the per capita claims costs assumed in the valuation as follows:

The Medicare status of dependents is not used to determine whether “pre-65” or “post-65” rates apply. The pre-65 plan rates used to calculate participant contributions are a blend of pre-65 retiree costs and active employee costs for those participants retired prior to January 1, 2013, only.

For purposes of determining retiree contribution rates, AEP excludes the value of the government’s monthly direct payment amount and its catastrophic reinsurance payments from offsetting the plan cost to which the contribution percentages are applied.

Disabled employee contributions

Disabled employees are offered coverage for the same rates as active employees while an employee remains disabled and is receiving LTD benefits.

If an employee retires while disabled and became disabled before January 1, 2001, a waiver of premium provision continues for life as long as the retirement commenced on or before September 1, 2013. If an employee retires while disabled and became disabled after January 1, 2001, the employee will be subject to the same contribution schedule as normal retirees, based on age and service points earned prior to LTD commencement.

Those participants retiring after January 1, 2013, pay a percentage of true pre-65 retiree costs.

**Life Insurance Benefits**

Grandfathered participants  
Grandfathered benefits

Participants over age 50 with ten years of service as of December 31, 2000. Grandfathered participants have the option of keeping current coverage. Active employee coverage for grandfathered East participants is one times final base pay at no cost with the option to buy up to two times base pay. The entire amount of coverage (basic plus supplemental) in force prior to retirement can be carried into retirement subject to reduction beginning at age 66. Current coverage for grandfathered West participants is one and one-half times final base pay prior to age 60, one times final base pay from age 60 to 64 and one-half times final base pay after age 65.

**Life Insurance Benefit Reduction Table for Grandfathered East Participants**

<i>Years of Coverage</i>	<i>Age 66</i>	<i>Age 67</i>	<i>Age 68</i>	<i>Age 69</i>	<i>Age 70 or Over</i>
10 – 11	65%	55%	45%	35%	25%
11 – 12	70	60	50	40	30
12 – 13	75	65	55	45	35
13 – 14	80	70	60	50	40
14 – 15	85	75	65	55	45
15 or more	90	80	70	60	50

Grandfathered contributions

Grandfathered East retirees must contribute \$0.60/\$1,000 of coverage (basic + supplemental) per month. West retirees are not required to contribute to the cost of coverage.

## Dental Benefits

Eligibility	Participants, including retirees and surviving dependents, are eligible upon retirement after age 55 with ten years of service. There is a one-time election and if coverage terminates there is no opportunity to reenroll.
Benefits	<p>The AEP Dental Plan provides dental coverage with a deductible of \$50 single/\$150 family, 100% coinsurance for preventive care, 80% coinsurance for basic restorative care, 50% coinsurance for major restorative care and 50% coinsurance for orthodontia (for children under age 19). The plan has an annual maximum benefit of \$1,750 per person.</p> <p>Most retirees pay the full cost of dental coverage if they enroll. CSW employees who retire before January 1, 1993, contribute nothing to enroll for dental coverage. Former CSW employees retiring after January 1, 1993, who were either retired or had attained age 50 with ten years of service as of January 1, 2001, pay 40% (42% for spouses).</p>

## Changes in Benefits Valued Since Prior Year

The valuation reflects the amendment to increase dependent and surviving spouse contributions for most spouses which decreased the postretirement welfare benefit cost. This amendment was first recognized at December 31, 2019 year-end disclosure and first included in expense for FY2020.

## Overview of Benefits Provided by Funding Vehicles

Funding vehicle	Provides for
Non-union postretirement medical/dental VEBAs	9.5% of retiree medical benefits and 100% of dental benefits to non-union retirees.
Union postretirement medical/dental VEBAs	100% of medical/dental benefits to union retirees.
Postretirement life insurance VEBA	Life insurance benefits for all retirees.
401(h) account	90.5% of retiree medical benefits for non-union retirees.

# Appendix C: Results by business unit

**AMERICAN ELECTRIC POWER  
NON-UMWA POSTRETIREMENT WELFARE PLAN  
SUMMARY OF PLAN PARTICIPANTS FOR THE 2020 VALUATION**

Location	Nonretired Participants		Retired Participants				
	Active	Total	Retiree	Dependent Spouse	Surviving Spouse	Disabled	Total
140 Appalachian Power Co. - Distribution	747	747	1,035	636	332	46	2,049
215 Appalachian Power Co. - Generation	527	527	988	638	213	26	1,865
150 Appalachian Power Co. - Transmission	0	0	136	102	13	3	254
<b>Appalachian Power Co. - FERC</b>	<b>1,274</b>	<b>1,274</b>	<b>2,159</b>	<b>1,376</b>	<b>558</b>	<b>75</b>	<b>4,168</b>
225 Cedar Coal Co	0	0	4	2	8	0	14
<b>Appalachian Power Co. - SEC</b>	<b>1,274</b>	<b>1,274</b>	<b>2,163</b>	<b>1,378</b>	<b>566</b>	<b>75</b>	<b>4,182</b>
211 AEP Texas Central Company - Distribution	706	706	801	465	265	22	1,553
147 AEP Texas Central Company - Generation	0	0	0	0	0	0	0
169 AEP Texas Central Company - Transmission	105	105	76	41	28	0	145
<b>AEP Texas Central Co.</b>	<b>811</b>	<b>811</b>	<b>877</b>	<b>506</b>	<b>293</b>	<b>22</b>	<b>1,698</b>
119 AEP Texas North Company - Distribution	186	186	242	135	58	4	439
166 AEP Texas North Company - Generation	0	0	82	41	34	0	157
192 AEP Texas North Company - Transmission	49	49	32	16	10	0	58
<b>AEP Texas North Co.</b>	<b>235</b>	<b>235</b>	<b>356</b>	<b>192</b>	<b>102</b>	<b>4</b>	<b>654</b>
<b>AEP Texas</b>	<b>1,046</b>	<b>1,046</b>	<b>1,233</b>	<b>698</b>	<b>395</b>	<b>26</b>	<b>2,352</b>
170 Indiana Michigan Power Co. - Distribution	375	375	598	305	203	5	1,111
132 Indiana Michigan Power Co. - Generation	167	167	349	229	77	3	658
190 Indiana Michigan Power Co. - Nuclear	781	781	512	314	87	1	914
120 Indiana Michigan Power Co. - Transmission	82	82	128	83	21	2	234
280 Ind Mich River Transp Lakin	144	144	130	52	32	12	226
<b>Indiana Michigan Power Co. - SEC</b>	<b>1,549</b>	<b>1,549</b>	<b>1,717</b>	<b>983</b>	<b>420</b>	<b>23</b>	<b>3,143</b>
110 Kentucky Power Co. - Distribution	178	178	193	108	38	12	351
117 Kentucky Power Co. - Generation	21	21	186	126	52	11	375
180 Kentucky Power Co. - Transmission	0	0	15	9	1	0	25
600 Kentucky Power Co. - Kammer Actives	0	0	0	0	0	0	0
701 Kentucky Power Co. - Mitchell Actives	162	162	0	0	0	0	0
702 Kentucky Power Co. - Mitchell Inactives	0	0	133	89	0	0	222
<b>Kentucky Power Co.</b>	<b>361</b>	<b>361</b>	<b>527</b>	<b>332</b>	<b>91</b>	<b>23</b>	<b>973</b>
250 Ohio Power Co. - Distribution	1,093	1,093	1,530	868	448	32	2,878
160 Ohio Power Co. - Transmission	1	1	185	120	58	2	365
<b>Ohio Power Co.</b>	<b>1,094</b>	<b>1,094</b>	<b>1,715</b>	<b>988</b>	<b>506</b>	<b>34</b>	<b>3,243</b>
167 Public Service Co. of Oklahoma - Distribution	453	453	510	296	152	9	967
198 Public Service Co. of Oklahoma - Generation	260	260	216	135	51	6	408
114 Public Service Co. of Oklahoma - Transmission	55	55	59	38	16	1	114
<b>Public Service Co. of Oklahoma</b>	<b>768</b>	<b>768</b>	<b>785</b>	<b>469</b>	<b>219</b>	<b>16</b>	<b>1,489</b>
159 Southwestern Electric Power Co. - Distribution	392	392	327	190	75	12	604
168 Southwestern Electric Power Co. - Generation	463	463	299	191	83	11	584
161 Southwestern Electric Power Co. - Texas - Distribution	148	148	174	108	45	10	337
111 Southwestern Electric Power Co. - Texas - Transmission	0	0	0	0	0	0	0
194 Southwestern Electric Power Co. - Transmission	64	64	53	34	15	0	102
<b>Southwestern Electric Power Co.</b>	<b>1,067</b>	<b>1,067</b>	<b>853</b>	<b>523</b>	<b>218</b>	<b>33</b>	<b>1,627</b>
230 Kingsport Power Co. - Distribution	39	39	51	29	12	1	93
260 Kingsport Power Co. - Transmission	0	0	9	4	1	0	14
<b>Kingsport Power Co.</b>	<b>39</b>	<b>39</b>	<b>60</b>	<b>33</b>	<b>13</b>	<b>1</b>	<b>107</b>
210 Wheeling Power Co. - Distribution	34	34	62	33	21	1	117
200 Wheeling Power Co. - Transmission	0	0	2	0	5	0	7
<b>Wheeling Power Co.</b>	<b>34</b>	<b>34</b>	<b>64</b>	<b>33</b>	<b>26</b>	<b>1</b>	<b>124</b>
103 American Electric Power Service Corporation	3,827	3,827	3,381	1,888	340	62	5,671
293 Elmwood	0	0	36	1	2	0	39
292 AEP River Operations LLC	0	0	155	43	4	0	202
<b>American Electric Power Service Corporation</b>	<b>3,827</b>	<b>3,827</b>	<b>3,572</b>	<b>1,932</b>	<b>346</b>	<b>62</b>	<b>5,912</b>
270 Cook Coal Terminal	12	12	13	6	1	0	20
<b>AEP Generating Company</b>	<b>12</b>	<b>12</b>	<b>13</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>20</b>
104 Cardinal Operating Company	0	0	306	160	48	0	514
181 Ohio Power Co. - Generation	88	88	1,139	703	290	9	2,141
<b>AEP Generation Resources - FERC</b>	<b>88</b>	<b>88</b>	<b>1,445</b>	<b>863</b>	<b>338</b>	<b>9</b>	<b>2,655</b>
290 Conesville Coal Preparation Company	0	0	12	9	1	0	22
<b>AEP Generation Resources - SEC</b>	<b>88</b>	<b>88</b>	<b>1,457</b>	<b>872</b>	<b>339</b>	<b>9</b>	<b>2,677</b>
171 CSW Energy, Inc.	0	0	7	2	1	0	10
175 AEP Energy Partners	93	93	7	2	1	0	10
419 Onsite Partners	4	4	0	0	0	0	0
<b>AEP Energy Supply</b>	<b>185</b>	<b>185</b>	<b>1,471</b>	<b>876</b>	<b>341</b>	<b>9</b>	<b>2,697</b>
143 AEP Pro Serv, Inc.	0	0	1	1	0	0	2
<b>AEP Pro Serv, Inc.</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>
245 Dolet Hills	104	104	55	50	2	22	129
<b>Dolet Hills</b>	<b>104</b>	<b>104</b>	<b>55</b>	<b>50</b>	<b>2</b>	<b>22</b>	<b>129</b>
<b>Total</b>	<b>11,360</b>	<b>11,360</b>	<b>14,229</b>	<b>8,302</b>	<b>3,144</b>	<b>325</b>	<b>26,000</b>

**AMERICAN ELECTRIC POWER  
NON-UMWA POSTRETIREMENT WELFARE PLAN  
2020 NET PERIODIC POSTRETIREMENT BENEFIT COST**

Location	Accumulated Postretirement Benefit Obligation	Expected Net Benefit Payments	Fair Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	"Other Cost"			Net Periodic Postretirement Benefit Cost
							Amortizations		Total "Other" Cost	
							PSC	(G)/L		
140 Appalachian Power Co. - Distribution	\$92,767,341	\$7,258,184	\$138,872,595	\$590,979	\$2,962,037	(\$7,449,063)	(\$5,152,076)	\$473,360	(\$9,165,742)	(\$8,574,763)
215 Appalachian Power Co. - Generation	79,324,312	6,736,828	118,748,397	463,327	2,522,737	(6,369,610)	(4,212,812)	404,765	(7,654,920)	(7,191,593)
150 Appalachian Power Co. - Transmission	8,708,583	594,655	13,036,738	0	277,651	(699,285)	(786,390)	44,437	(1,163,587)	(1,163,587)
<b>Appalachian Power Co. - FERC</b>	<b>\$180,800,236</b>	<b>\$14,589,667</b>	<b>\$270,657,730</b>	<b>\$1,054,306</b>	<b>\$5,762,425</b>	<b>(\$14,517,958)</b>	<b>(\$10,151,278)</b>	<b>\$922,562</b>	<b>(\$17,984,249)</b>	<b>(\$16,929,943)</b>
225 Cedar Coal Co	293,690	39,154	439,654	0	9,051	(23,583)	(8,365)	1,499	(21,398)	(21,398)
<b>Appalachian Power Co. - SEC</b>	<b>\$181,093,926</b>	<b>\$14,628,821</b>	<b>\$271,097,384</b>	<b>\$1,054,306</b>	<b>\$5,771,476</b>	<b>(\$14,541,541)</b>	<b>(\$10,159,643)</b>	<b>\$924,061</b>	<b>(\$18,005,647)</b>	<b>(\$16,951,341)</b>
211 AEP Texas Central Company - Distribution	\$65,453,935	\$4,500,246	\$97,984,460	\$516,956	\$2,103,388	(\$5,255,842)	(\$3,920,168)	\$333,989	(\$6,738,633)	(\$6,221,677)
147 AEP Texas Central Company - Generation	0	0	0	0	0	0	(15,337)	0	(15,337)	(15,337)
169 AEP Texas Central Company - Transmission	6,731,096	428,755	10,076,442	80,255	217,758	(540,496)	(395,865)	34,346	(684,257)	(604,002)
<b>AEP Texas Central Co.</b>	<b>\$72,185,031</b>	<b>\$4,929,001</b>	<b>\$108,060,902</b>	<b>\$597,211</b>	<b>\$2,321,146</b>	<b>(\$5,796,338)</b>	<b>(\$4,331,370)</b>	<b>\$368,335</b>	<b>(\$7,438,227)</b>	<b>(\$6,841,016)</b>
119 AEP Texas North Company - Distribution	19,740,032	1,375,197	29,550,804	146,395	633,746	(1,585,092)	(1,287,643)	100,727	(2,138,262)	(1,991,867)
166 AEP Texas North Company - Generation	3,756,068	352,974	5,622,829	0	118,173	(301,606)	(69,426)	19,166	(233,693)	(233,693)
192 AEP Texas North Company - Transmission	3,008,185	197,375	4,503,249	31,611	97,083	(241,552)	(235,815)	15,350	(364,934)	(333,323)
<b>AEP Texas North Co.</b>	<b>\$26,504,285</b>	<b>\$1,925,546</b>	<b>\$39,676,882</b>	<b>\$178,006</b>	<b>\$849,002</b>	<b>(\$2,128,250)</b>	<b>(\$1,592,884)</b>	<b>\$135,243</b>	<b>(\$2,736,889)</b>	<b>(\$2,558,883)</b>
<b>AEP Texas</b>	<b>\$98,689,316</b>	<b>\$6,854,547</b>	<b>\$147,737,784</b>	<b>\$775,217</b>	<b>\$3,170,148</b>	<b>(\$7,924,588)</b>	<b>(\$5,924,254)</b>	<b>\$503,578</b>	<b>(\$10,175,116)</b>	<b>(\$9,399,899)</b>
170 Indiana Michigan Power Co. - Distribution	\$43,940,431	\$3,618,969	\$65,778,771	\$335,830	\$1,401,888	(\$3,528,343)	(\$2,628,491)	\$224,213	(\$4,530,733)	(\$4,194,903)
132 Indiana Michigan Power Co. - Generation	28,924,142	2,484,812	43,299,405	116,796	917,684	(2,322,560)	(1,869,038)	147,590	(3,126,324)	(3,009,528)
190 Indiana Michigan Power Co. - Nuclear	52,213,460	3,328,173	78,163,485	781,244	1,694,356	(4,192,654)	(3,595,630)	266,427	(5,827,501)	(5,046,257)
120 Indiana Michigan Power Co. - Transmission	9,643,864	654,005	14,436,853	72,723	309,944	(774,386)	(603,272)	49,209	(1,018,505)	(945,782)
280 Ind Mich River Transp Lakin	10,825,023	772,086	16,205,046	123,011	348,649	(869,231)	(817,161)	55,236	(1,282,507)	(1,159,496)
<b>Indiana Michigan Power Co. - SEC</b>	<b>\$145,546,920</b>	<b>\$10,858,045</b>	<b>\$217,883,560</b>	<b>\$1,429,604</b>	<b>\$4,672,521</b>	<b>(\$11,687,174)</b>	<b>(\$9,513,582)</b>	<b>\$742,675</b>	<b>(\$15,785,570)</b>	<b>(\$14,355,966)</b>
110 Kentucky Power Co. - Distribution	\$18,491,102	\$1,332,912	\$27,681,157	\$120,885	\$592,381	(\$1,484,805)	(\$1,220,699)	\$94,354	(\$2,018,769)	(\$1,897,884)
117 Kentucky Power Co. - Generation	15,043,942	1,568,896	22,520,763	19,869	471,429	(1,208,003)	(618,664)	76,764	(1,278,474)	(1,258,605)
180 Kentucky Power Co. - Transmission	804,115	54,004	1,203,759	0	25,652	(64,569)	(198,619)	4,103	(233,433)	(233,433)
600 Kentucky Power Co. - Kammer Actives	0	0	0	0	0	0	(42,530)	0	(42,530)	(42,530)
701 Kentucky Power Co. - Mitchell Actives	4,187,507	30,706	6,268,693	158,382	142,912	(336,250)	(164,933)	21,367	(336,904)	(178,522)
702 Kentucky Power Co. - Mitchell Inactives	8,335,065	872,196	12,477,582	0	260,783	(669,292)	(206,988)	42,531	(572,966)	(572,966)
<b>Kentucky Power Co.</b>	<b>\$46,861,731</b>	<b>\$3,858,714</b>	<b>\$70,151,954</b>	<b>\$299,136</b>	<b>\$1,493,157</b>	<b>(\$3,762,919)</b>	<b>(\$2,452,433)</b>	<b>\$239,119</b>	<b>(\$4,483,076)</b>	<b>(\$4,183,940)</b>
250 Ohio Power Co. - Distribution	\$119,527,554	\$9,631,789	\$178,932,601	\$863,414	\$3,815,267	(\$9,597,863)	(\$5,960,988)	\$609,908	(\$11,133,676)	(\$10,270,260)
160 Ohio Power Co. - Transmission	12,182,709	1,015,957	18,237,500	1,314	385,446	(978,251)	(1,038,977)	62,164	(1,569,618)	(1,568,304)
<b>Ohio Power Co.</b>	<b>\$131,710,263</b>	<b>\$10,647,746</b>	<b>\$197,170,101</b>	<b>\$864,730</b>	<b>\$4,200,713</b>	<b>(\$10,576,114)</b>	<b>(\$6,999,965)</b>	<b>\$672,072</b>	<b>(\$12,703,294)</b>	<b>(\$11,838,564)</b>
167 Public Service Co. of Oklahoma - Distribution	\$40,142,975	\$2,961,725	\$60,093,984	\$372,130	\$1,288,527	(\$3,223,414)	(\$2,502,138)	\$204,836	(\$4,232,189)	(\$3,860,059)
198 Public Service Co. of Oklahoma - Generation	20,513,170	1,351,398	30,708,190	231,615	662,461	(1,647,173)	(1,511,530)	104,672	(2,391,570)	(2,159,955)
114 Public Service Co. of Oklahoma - Transmission	4,792,669	359,687	7,174,620	39,355	153,570	(384,843)	(316,358)	24,455	(523,176)	(483,821)
<b>Public Service Co. of Oklahoma</b>	<b>\$65,448,814</b>	<b>\$4,672,810</b>	<b>\$97,976,794</b>	<b>\$643,100</b>	<b>\$2,104,658</b>	<b>(\$5,255,430)</b>	<b>(\$4,330,026)</b>	<b>\$333,963</b>	<b>(\$7,146,935)</b>	<b>(\$6,503,835)</b>
159 Southwestern Electric Power Co. - Distribution	\$29,601,478	\$1,894,668	\$44,313,376	\$304,712	\$955,896	(\$2,376,949)	(\$1,812,585)	\$151,046	(\$3,082,592)	(\$2,777,880)
168 Southwestern Electric Power Co. - Generation	29,946,567	1,826,827	44,829,974	347,357	969,802	(2,404,659)	(2,156,457)	152,807	(3,438,507)	(3,091,150)
161 Southwestern Electric Power Co. - Texas - Distribution	14,330,286	1,095,247	21,452,420	115,406	458,783	(1,150,698)	(951,750)	73,123	(1,570,542)	(1,455,136)
111 Southwestern Electric Power Co. - Texas - Transmission	0	0	0	0	0	0	0	0	0	0
194 Southwestern Electric Power Co. - Transmission	4,456,006	321,948	6,670,635	45,740	143,289	(357,810)	(282,953)	22,737	(474,373)	(428,997)
<b>Southwestern Electric Power Co.</b>	<b>\$78,334,337</b>	<b>\$5,138,690</b>	<b>\$117,266,405</b>	<b>\$813,215</b>	<b>\$2,527,770</b>	<b>(\$6,290,116)</b>	<b>(\$5,203,745)</b>	<b>\$399,713</b>	<b>(\$8,566,378)</b>	<b>(\$7,753,163)</b>
230 Kingsport Power Co. - Distribution	\$3,952,456	\$312,734	\$5,916,822	\$38,874	\$126,596	(\$317,376)	(\$179,346)	\$20,168	(\$349,958)	(\$311,084)
260 Kingsport Power Co. - Transmission	442,510	41,000	662,437	0	13,932	(35,533)	(40,653)	2,258	(59,996)	(59,996)
<b>Kingsport Power Co.</b>	<b>\$4,394,966</b>	<b>\$353,734</b>	<b>\$6,579,259</b>	<b>\$38,874</b>	<b>\$140,528</b>	<b>(\$352,909)</b>	<b>(\$219,999)</b>	<b>\$22,426</b>	<b>(\$409,954)</b>	<b>(\$371,080)</b>
210 Wheeling Power Co. - Distribution	\$4,664,671	\$379,614	\$6,983,007	\$30,113	\$148,715	(\$374,565)	(\$261,861)	\$23,802	(\$463,909)	(\$433,796)
200 Wheeling Power Co. - Transmission	115,186	20,479	172,433	0	3,466	(9,249)	(2,670)	588	(7,865)	(7,865)
<b>Wheeling Power Co.</b>	<b>\$4,779,857</b>	<b>\$400,093</b>	<b>\$7,155,440</b>	<b>\$30,113</b>	<b>\$152,181</b>	<b>(\$383,814)</b>	<b>(\$264,531)</b>	<b>\$24,390</b>	<b>(\$471,774)</b>	<b>(\$441,661)</b>
103 American Electric Power Service Corporation	\$298,226,553	\$19,528,718	\$446,444,783	\$3,192,250	\$9,627,211	(\$23,947,092)	(\$17,449,627)	\$1,521,747	(\$30,247,761)	(\$27,055,511)
293 Elmwood	760,412	41,416	1,138,336	0	24,416	(61,060)	(276,151)	3,880	(308,915)	(308,915)
292 AEP River Operations LLC	5,442,203	450,153	8,146,971	0	172,225	(437,000)	(1,248,263)	27,770	(1,485,268)	(1,485,268)
<b>American Electric Power Service Corporation</b>	<b>\$304,429,168</b>	<b>\$20,020,287</b>	<b>\$455,730,090</b>	<b>\$3,192,250</b>	<b>\$9,823,852</b>	<b>(\$24,445,152)</b>	<b>(\$18,974,041)</b>	<b>\$1,553,397</b>	<b>(\$32,041,944)</b>	<b>(\$28,849,694)</b>
270 Cook Coal Terminal	\$778,057	\$59,988	\$1,164,750	\$7,382	\$24,938	(\$62,477)	(\$68,165)	\$3,970	(\$101,734)	(\$94,352)
<b>AEP Generating Company</b>	<b>\$778,057</b>	<b>\$59,988</b>	<b>\$1,164,750</b>	<b>\$7,382</b>	<b>\$24,938</b>	<b>(\$62,477)</b>	<b>(\$68,165)</b>	<b>\$3,970</b>	<b>(\$101,734)</b>	<b>(\$94,352)</b>
104 Cardinal Operating Company	\$17,246,220	\$1,752,760	\$25,817,570	\$0	\$540,439	(\$1,384,843)	(\$1,127,132)	\$88,002	(\$1,883,534)	(\$1,883,534)
181 Ohio Power Co. - Generation	78,458,753	7,726,376	117,452,657	81,426	2,465,375	(6,300,107)	(4,407,457)	400,348	(7,841,841)	(7,760,415)
<b>AEP Generation Resources - FERC</b>	<b>\$95,704,973</b>	<b>\$9,479,136</b>	<b>\$143,270,227</b>	<b>\$81,426</b>	<b>\$3,005,814</b>	<b>(\$7,684,950)</b>	<b>(\$5,534,589)</b>	<b>\$488,350</b>	<b>(\$9,725,375)</b>	<b>(\$9,643,949)</b>
290 Conesville Coal Preparation Company	888,047	93,627	1,329,405	0	27,773	(71,309)	(52,190)	4,531	(91,195)	(91,195)
<b>AEP Generation Resources - SEC</b>	<b>\$96,593,020</b>	<b>\$9,572,763</b>	<b>\$144,599,632</b>	<b>\$81,426</b>	<b>\$3,033,587</b>	<b>(\$7,756,259)</b>	<b>(\$5,586,779)</b>	<b>\$492,881</b>	<b>(\$9,816,570)</b>	<b>(\$9,735,144)</b>
171 CSW Energy, Inc.	263,205	15,005	394,018	0	8,440	(21,135)	(15,452)	1,343	(26,804)	(26,804)
175 AEP Energy Partners	1,466,460	45,695	2,195,289	67,623	49,877	(117,754)	(9,001)	7,483	(69,395)	(1,772)
419 Onsite Partners	26,849	0	40,193	1,979	951	(2,156)	(24)	137	(1,092)	887
<b>AEP Energy Supply</b>	<b>\$98,349,534</b>	<b>\$9,633,463</b>	<b>\$147,229,132</b>	<b>\$151,028</b>	<b>\$3,092,855</b>	<b>(\$7,897,304)</b>	<b>(\$5,611,256)</b>	<b>\$501,844</b>	<b>(\$9,913,861)</b>	<b>(\$9,762,833)</b>
143 AEP Pro Serv, Inc.	\$93,765	\$3,470	\$140,366	\$0	\$3,037	(\$7,529)	(\$1,193)	\$478	(\$5,207)	(\$5,207)
<b>AEP Pro Serv, Inc.</b>	<b>\$93,765</b>	<b>\$3,470</b>	<b>\$140,366</b>	<b>\$0</b>	<b>\$3,037</b>	<b>(\$7,529)</b>	<b>(\$1,193)</b>	<b>\$478</b>	<b>(\$5,207)</b>	<b>(\$5,207)</b>
245 Dolet Hills	\$6,721,096	\$485,438	\$10,061,472	\$126,744	\$218,034	(\$539,693)	(\$3,982)	\$34,295	(\$291,346)	(\$164,602)
<b>Dolet Hills</b>	<b>\$6,721,096</b>	<b>\$485,438</b>	<b>\$10,061,472</b>	<b>\$126,744</b>	<b>\$218,034</b>	<b>(\$539,693)</b>	<b>(\$3,982)</b>	<b>\$34,295</b>	<b>(\$291,346)</b>	<b>(\$164,602)</b>
<b>Total</b>	<b>\$1,167,231,750</b>	<b>\$87,615,846</b>	<b>\$1,747,344,491</b>	<b>\$9,425,699</b>	<b>\$37,395,768</b>	<b>(\$93,726,760)</b>	<b>(\$69,726,825)</b>	<b>\$5,955,981</b>	<b>(\$120,101,836)</b>	<b>(\$110,676,137)</b>