

KENTUCKY POWER COMPANY
Projected Summer Peak Demands, Generating Capabilities, and Margins (UCAP)
Based on (June 2017) Load Forecast
2017

Planning Year		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(16)	(17)	(18)	(19)	(20)	(21)				
					=(1)+(3)				=(4)- ((5)*(6))*(7)	=(8)+(9)		=(11)-(12) + Sum(14) +(15)	=(16)*(17)	=(11)-(12) +(15) *(17) -(17)-(10)-	=(18)-(19)								
Obligation to PJM											Resources					KPCo Position (MW)		PJM Reserve Margin					
	Internal Demand (a)	DSM (b)	Projected DSM Impact (c)	Net Internal Demand	Interruptible Demand Response (d)	Demand Response Factor	Forecast Pool Req't (e)	UCAP Obligation	Net UCAP Market Obligation (f)	Total UCAP Obligation	Existing Capacity & Planned Changes (g)	Net Capacity Sales (h)	Net ICAP	AEP EFORD (j)	Available UCAP	BASE UCAP Removed (l)	Net Position w/o New Capacity	Net Position w/ New Capacity	Total UCAP Obligation Less IDR and IRM	Installed Reserve Margin (IRM)	KPCo Reserve Above PJM IRM	Total KPCo Reserve Margin	
2013 /14	(k)	1,136	(3)	0	1,136	0	0.957	1,089	1,237	0	1,237	1,470	50	1,420	4.65%	1,354	0	117	117	1,067	15.90%	10.96%	26.86%
2014 /15	(k)	1,084	(1)	0	1,084	0	0.954	1,093	1,185	0	1,185	2,250	0	2,250	20.77%	1,783	0	598	598	1,020	16.20%	58.64%	74.84%
2015 /16	(k)	1,096	(2)	0	1,096	0	0.951	1,091	1,196	0	1,196	1,450	0	1,450	10.16%	1,303	0	107	107	1,035	15.60%	10.34%	25.94%
2016 /17	(k)	1,088	(3)	0	1,088	0	0.953	1,095	1,191	0	1,191	1,457	0	1,457	11.09%	1,295	0	104	104	1,023	16.40%	10.16%	26.56%
2017 /18	(k)	1,021	(3)	0	1,021	0	0.947	1,097	1,119	0	1,119	1,457	0	1,457	11.98%	1,282	0	163	163	960	16.60%	16.98%	33.58%
2018 /19	(k)	1,020	(7)	0	1,020	0	1.000	1,089	1,111	0	1,111	1,463	0	1,463	9.99%	1,317	0	206	206	953	16.60%	21.62%	38.22%
2019 /20	(k)	1,025	(9)	0	1,025	0	1.000	1,089	1,116	0	1,116	1,463	0	1,463	9.99%	1,317	0	201	201	957	16.60%	21.00%	37.60%
2020 /21	(k)	1,022	(10)	0	1,022	0	1.000	1,089	1,113	0	1,113	1,468	0	1,468	9.97%	1,322	0	209	209	955	16.60%	21.90%	38.50%
2021 /22		960	(11)	(3)	957	1	1.000	1,089	1,040	0	1,040	1,468	0	1,468	9.97%	1,322	1	281	281	893	16.60%	31.46%	48.06%
2022 /23		957	(12)	(7)	951	1	1.000	1,089	1,034	0	1,034	1,468	0	1,468	9.97%	1,322	1	287	287	888	16.60%	32.31%	48.91%
2023 /24		955	(12)	(9)	946	1	1.000	1,089	1,029	0	1,029	1,468	0	1,468	9.97%	1,322	1	292	292	884	16.60%	33.04%	49.64%
2024 /25		953	(13)	(10)	942	1	1.000	1,089	1,025	0	1,025	1,468	0	1,468	9.97%	1,322	1	296	296	880	16.60%	33.62%	50.22%
2025 /26		952	(12)	(11)	941	1	1.000	1,089	1,023	0	1,023	1,465	0	1,465	9.98%	1,319	1	295	295	879	16.60%	33.57%	50.17%
2026 /27		951	(12)	(12)	939	1	1.000	1,089	1,021	0	1,021	1,465	0	1,465	9.98%	1,319	1	297	297	877	16.60%	33.87%	50.47%
2027 /28		950	(11)	(12)	938	1	1.000	1,089	1,020	0	1,020	1,465	0	1,465	9.98%	1,319	1	298	298	876	16.60%	34.01%	50.61%

Notes: (a) Based on (June 2017) Load Forecast (with implied PJM diversity factor)

(b) Existing plus approved and projected "Passive" EE, and VVO
 (note: these values & timing are for reference only and are not reflected in position determination)

(c) For PJM planning purposes, the ultimate impact of new DSM is 'delayed' ~4 years to represent the ultimate recognition of these amounts through the PJM-originated load forecast process

(d) Demand Response approved by PJM in the prior planning year plus forecasted "Active" DR

(e) Forecast Pool Requirement (FPR) = (1 + IRM) * (1 - PJM EFORD)

(f)

(g) **GAS CONVERSION RERATES:**

2015/16: Big Sandy 1: 285 MW

RETIREMENTS:

2015/16: Big Sandy 2

2030/31: Big Sandy 1

(h)

(i)

(j) Beginning 2008/09, based on 12-month avg. AEP EFORD in eCapacity as of twelve months ended 9/30 of the previous year

(k) Actual PJM forecast

(l) Capacity Removed as part of PJM Capacity Performance Rule
 Current CP Assumptions are:
 Wind 5%, Solar 38%, ROR Hydro 25%
 Demand Response 50%