

**Table 6-10: Energy Requirements and Resource Summary (MW, Amended 2014 IRP)**

	2015	2016	2017	2018	2019	2020	2025	2028
Forecasted Peak Load	7,364	7,450	7,520	7,607	7,337	7,394	7,666	7,826
DSM	(336)	(365)	(394)	(423)	(406)	(406)	(406)	(406)
Net Peak Load	7,028	7,085	7,126	7,183	6,932	6,988	7,260	7,421
Existing Resources <sup>39</sup>	7,152	7,135	7,135	7,135	7,135	7,135	7,135	7,135
Planned/Proposed Resources								
Cane Run 7	640	640	640	640	640	640	640	640
Brown Solar <sup>40</sup>	0	9	9	9	9	9	9	9
Bluegrass Capacity Purchase	165	165	165	165	0	0	0	0
Firm Purchases (OVEC)	155	155	155	155	155	155	155	155
Curtaillable Load	131	131	131	131	131	131	131	131
Total Supply	8,243	8,234	8,235	8,235	8,070	8,070	8,070	8,070
Reserve Margin	1,215	1,149	1,109	1,052	1,138	1,082	810	649
Reserve Margin %	17.3%	16.2%	15.6%	14.6%	16.4%	15.5%	11.2%	8.7%

A summary of energy requirements and resources for the 2018 IRP is contained in Table 6-11. Given the changes in retail energy requirements, absent further retirements, the Companies do not have a need for new capacity through the 15-year planning period.

**Table 6-11: Energy Requirements and Resource Summary (MW, 2018 IRP)**

	2018	2019	2020	2021	2022	2023	2024	2027	2030	2033
Gross Peak Load	7,028	6,703	6,688	6,674	6,657	6,653	6,638	6,655	6,650	6,627
DCP	-127	-96	-91	-87	-84	-80	-77	-67	-59	-52
DSM	-247	-247	-236	-236	-236	-236	-236	-236	-236	-236
<b>Net Peak Load</b>	<b>6,655</b>	<b>6,360</b>	<b>6,361</b>	<b>6,350</b>	<b>6,338</b>	<b>6,338</b>	<b>6,325</b>	<b>6,352</b>	<b>6,355</b>	<b>6,339</b>
Existing Capability <sup>41</sup>	7,754	7,476	7,476	7,476	7,477	7,477	7,478	7,478	7,478	7,478
Small-Frame SCCTs	87	87	87	73	73	73	73	73	73	73
CSR	141	141	141	141	141	141	141	141	141	141
Bluegrass	165	0	0	0	0	0	0	0	0	0
OVEC <sup>42</sup>	152	152	152	152	152	152	152	152	152	152
<b>Total Supply</b>	<b>8,299</b>	<b>7,856</b>	<b>7,856</b>	<b>7,842</b>	<b>7,843</b>	<b>7,843</b>	<b>7,844</b>	<b>7,844</b>	<b>7,844</b>	<b>7,844</b>
Reserve Margin	1,644	1,495	1,495	1,491	1,505	1,505	1,518	1,492	1,489	1,505
<b>Reserve Margin %</b>	<b>24.7%</b>	<b>23.5%</b>	<b>23.5%</b>	<b>23.5%</b>	<b>23.7%</b>	<b>23.7%</b>	<b>24.0%</b>	<b>23.5%</b>	<b>23.4%</b>	<b>23.7%</b>

<sup>39</sup> Existing resources include the retirement of Tyrone 3 in February 2013 and the planned retirement of Green River 3-4 in April 2015 and Cane Run 4-6 in May 2015.

<sup>40</sup> 90% of the capacity of Brown Solar was assumed to be available at the time of peak.

<sup>41</sup> Existing capability is shown excluding small-frame SCCTs, CSR, Bluegrass, and OVEC and including 1 MW derates on each of the E.W. Brown Units 8, 9, and 11, which are planned to be resolved by 2024.

<sup>42</sup> OVEC's capacity reflects the 152 MW that is expected to be available to the Companies at the time of the summer peak, not its rating of 172 MW.

**Table 8-2: KU and LG&E Existing and Planned Electric Generation Facilities**

Plant	Unit	Location	Status	Operation Date	Facility Type	Net Capability (MW) <sup>(1)</sup>		Entitlement		Fuel Type	Fuel Storage Capacity	Upgrades Derates, Retirements			
						2018/19 Winter	2019 Summer	KU	LGE						
Cane Run	7	Louisville	Existing	2015	Turbine	683	662	78%	22%	Gas	None				
	11			1968	Turbine	14	14		100%	Gas / Oil	50,000 Gal.	None			
Dix Dam	1-3	Burgin	Existing	1925	Hydro	31.5	31.5	100%		Water	None	None			
E.W. Brown	1	Burgin	Existing	1957	Steam	107	106	100%		Coal (Rail)	350,000 Tons	Retiring 2019			
	2			1963		168	166					Retiring 2019			
	3			1971		413	409					None			
	5			2001	Turbine	130	130	47%	53%	Gas	2,200,000 Gal.	None			
	6			1999		171	146								
	7			1999		171	146	62%	38%						
	8			1995		128	121								
	9			1994		138	121	100%					Gas / Oil		
	10			1995		138	121								
	11			1996	128	121									
	Solar			2016	Solar	0	8	61%	39%	Solar	None	None			
	Ghent			1	Ghent	Existing	1974	Steam	479	475	100%		Coal (Barge)	1,200,000 Tons	None
				2			1977		486	485					None
3		1981	476	481			None								
4		1984	478	478			None								
Haefling	1	Lexington	Existing	1970	Turbine	14	12	100%		Gas	None	None			
	2			1970		14	12								
Mill Creek	1	Louisville	Existing	1972	Steam	300	300		100%	Coal (Barge & Rail)	1,000,000 Tons	None			
	2			1974		295	297					None			
	3			1978		394	391					None			
	4			1982		486	477					None			
Ohio Falls	1-8	Louisville	Existing	1928	Hydro	40	64		100%	Water	None	None			
Paddy's Run	11	Louisville	Existing	1968	Turbine	13	12		100%	Gas	None	None			
	12			1968		28	23								
	13			2001		175	147	47%	53%						
Trimble County	1	Near Bedford	Existing	1990	Steam	493 (370) <sup>(2)</sup>	493 (370) <sup>(2)</sup>	0%	75%	Coal (Barge)	1,000,000 Tons (HS)	None			
	2			2011		760 (570) <sup>(2)</sup>	732 (549) <sup>(2)</sup>	61%	14%		250,000 Tons (PRB)	None			
	5			2002	Turbine	179	159	71%	29%	Gas	None	None			
	6			2002		179	159								
	7			2004		179	159	63%	37%						
	8			2004		179	159								
	9			2004		179	159								
	10			2004		179	159								
Zorn	1	Louisville	Existing	1969	Turbine	16	14		100%	Gas	None	Retiring by 2021			
<b>Future Units</b>															
Simpsonville Solar (Solar Share)	1	Near Simpsonville	Planned	2019	Solar	0	0.4 <sup>(4)</sup>	<sup>(3)</sup>	<sup>(3)</sup>	Solar	None	None			

<sup>(1)</sup> The ratings for Dix Dam, Ohio Falls (run of river), E.W. Brown Solar, and Solar Share reflect the expected output for these facilities at the time of the summer and winter peak demands.

<sup>(2)</sup> Ratings in parentheses represent the Companies' 75% ownership shares of Trimble County Units 1 and 2.

<sup>(3)</sup> Solar Share's ownership percentages will be determined by the composition of KU and LG&E customers.

<sup>(4)</sup> The capacity of Solar Share's first phase (Simpsonville Solar 1) will be approximately 0.4 MW (AC). Solar Share's total 3 MW (AC) will be constructed as customers fully subscribe to subsequent phases.