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STATE CORPORATION COMMISSION

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PRE-FILED TESTIMONY  
OF  
DIANE W. JENKINS

KENTUCKY UTILITIES COMPANY  
D/B/A OLD DOMINION POWER COMPANY  
CASE NO. PUE-2016-00017

April 19, 2016



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OF  
DIANE W. JENKINS**

**KENTUCKY UTILITIES COMPANY  
D/B/A OLD DOMINION POWER COMPANY  
CASE NO. PUE-2016-00017**

1 **Q1. PLEASE STATE YOUR NAME AND POSITION WITH THE**  
2 **COMMISSION.**

3 **A1.** My name is Diane W. Jenkins. I am a Principal Utilities Analyst in the  
4 Commission's Division of Energy Regulation.

5

6 **Q2. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
7 **PROCEEDING?**

8 **A2.** On February 16, 2016, Kentucky Utilities Company, doing business in  
9 Virginia as Old Dominion Power Company (hereinafter, "KU" or the  
10 "Company"), filed with the State Corporation Commission ("Commission") an  
11 application, written testimony, and exhibits in support of its request to decrease  
12 its levelized fuel factor by 0.577 cents per kilowatt-hour ("¢ per kWh") from  
13 2.863¢ per kWh to 2.286¢ per kWh, effective for service rendered on and after  
14 April 1, 2016, pursuant to § 56-249.6 of the Code of Virginia ("Application").

15 On March 3, 2016, the Commission issued its Order Establishing 2016-  
16 2017 Fuel Factor Proceeding that established the instant case, directed the  
17 Company to issue public notice, set a schedule for hearing and for the filing of

1 testimonies, and placed the proposed fuel factor into effect on an interim basis  
2 for service on and after April 1, 2016. The Commission also directed the Staff  
3 of the Commission ("Staff") to investigate KU's Application and file  
4 testimony.

5 The Commission did not receive any notice of participation or written  
6 public comments in this case.

7 In response to the Commission's directive, my testimony presents the  
8 Staff's conclusions and recommendations relative to the reasonableness of  
9 KU's: (i) projected fuel recovery position as of March 31, 2016, and the  
10 resulting correction factor; (ii) forecast of energy sales and delivered fuel  
11 prices, and the consistency of such forecast with the Commission's standards  
12 described in 20 VAC 5-300-100, "Standards for Fuel Cost Projections of  
13 Electric Utilities"; (iii) projected generating unit performance, purchase and  
14 interchange transactions, and net energy fuel mix and cost during the forecast  
15 period; and (iv) proposed total fuel factor reflecting projected Virginia  
16 jurisdictional fuel expense and sales for the period April 1, 2016-March 31,  
17 2017.

18  
19 **Q3. PLEASE DETAIL THE COMPANY'S PROPOSED FUEL FACTOR AS**  
20 **FILED IN ITS APPLICATION.**

21 **A3.** In its Application, the Company proposed a fuel factor of 2.286¢ per kWh  
22 which represents a decrease of 0.577¢ per kWh, or approximately 20 percent,

1 from the previous fuel factor of 2.863¢ per kWh (See Attachment 1). The  
2 proposed fuel factor was placed into effect on an interim basis effective April  
3 1, 2016, and decreases the monthly bill of a residential customer using 1,000  
4 kWh from \$109.48 to \$103.71 or by \$5.77, which is approximately 5.3  
5 percent.<sup>1</sup> The Company's proposed fuel factor includes an in-period factor of  
6 2.616¢ per kWh and a correction factor credit of 0.330¢ per kWh.

7 The in-period component of KU's proposed fuel factor of 2.616¢ per  
8 kWh is based on projected fuel expenses of \$18,526,043 and projected energy  
9 sales of 708,288,805 kWh in its Virginia jurisdiction during the twelve month  
10 forecast period from April 1, 2016, through March 31, 2017. This in-period  
11 component of the proposed fuel factor represents a decrease of 0.307¢ per  
12 kWh, approximately 10.5 percent, from the previous in-period factor of 2.923¢  
13 per kWh.

14 Additionally, KU is proposing a decrease in the correction factor  
15 component of the proposed fuel factor, from a credit of 0.060¢ per kWh to a  
16 credit of 0.330¢ per kWh. In its Application, the Company projected an over-  
17 recovery balance of \$2,340,053 as of March 31, 2016. This projection was  
18 based on actual data through December 2015 plus estimated fuel recoveries in  
19 the months of January, February, and March 2016.

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<sup>1</sup> The residential bill impact percentage was calculated excluding local utility taxes.

1           The Company explains that the over-recovery position is the result of  
2 lower energy expense than was forecasted, namely lower gas volumes, lower  
3 per kWh coal costs, and lower purchased power expense.  
4

5 **Q4. HOW DOES THE COMPANY FORECAST ENERGY SALES?**

6 **A4.** KU's energy sales forecast is based on the Company's July 2015 forecast. In  
7 general, the Company uses econometric modeling to establish historical energy  
8 consumption relationships and to project future energy sales based on multiple  
9 independent explanatory variables such as: 1) national, regional, and state  
10 economic conditions; 2) demographic and consumption characteristics including  
11 end use modeling data considering appliance saturation and efficiencies; and 3)  
12 weather data. The Virginia and Kentucky service territories are modeled  
13 separately with distinct modeling for each customer class, using similar  
14 methodologies. The Virginia service area represents less than 5 percent of KU's  
15 total energy sales.

16           IHS Global Insight of Boston, MA, provides the national U.S.  
17 macroeconomic and state level input data, as well as economic assumptions,  
18 demographic forecasts, and other regional data, that are needed to prepare the  
19 sales forecast. Weather data comes from the National Oceanic and Atmospheric  
20 Administration. In addition, the Company obtains information about growth  
21 prospects directly from its largest customers.  
22

1 **Q5. HOW DOES THE COMPANY FORECAST FUEL PRICES?**

2 **A5.** Coal is the primary fuel used by KU. The Company anticipates that  
3 approximately 99 percent of its estimated total coal purchases will be acquired  
4 pursuant to existing contract commitments and spot (short-term) market  
5 purchases. Forecasted prices for existing coal contracts are developed by  
6 escalating current coal prices, based on the price escalator clauses of the  
7 contracts. The remaining 1 percent of purchases are uncommitted purchases.  
8 Uncommitted coal prices are forecasted based on a combination of coal prices  
9 obtained from suppliers' bids received during KU's procurement period and a  
10 commercially available coal market forecast prepared by Wood Mackenzie,  
11 Ltd.

12 Current transportation, barge fleetling, and rail car maintenance costs are  
13 added to the forecast price for the total forecast delivered price. Similar to last  
14 year, transportation costs account for approximately 15 percent of the total  
15 forecast delivered coal purchases for the 2016-2017 fuel year.

16 KU has no contracts to purchase oil or natural gas as both fuels are  
17 purchased on the spot market on an "as-needed" basis. Fuel oil is not a  
18 significant production fuel, and prices are forecasted based on the New York  
19 Mercantile Exchange ("NYMEX") futures pricing for #2 fuel oil, which is  
20 available for New York harbor delivery. Natural gas prices are similarly  
21 forecasted based on the market price of Henry Hub NYMEX natural gas  
22 futures and market-priced pipeline transportation rates.

1 Historically, KU's baseload electric demand was primarily supplied  
2 using coal-fired generating units. However, recent changes to the generation  
3 fleet, including the retirement of several coal-fired units and the addition of the  
4 first combined cycle unit, Cane Run 7 ("CR7"), has created the need for KU to  
5 update its business strategy for fuel procurement. CR7 is required to operate a  
6 minimum amount in order to meet the projected baseload electric demand.  
7 Further, CR7's high efficiency and low natural gas prices make this unit  
8 competitive with the coal-fired base load units. Because of uncertainty  
9 regarding the volume of natural gas required, KU will continue to purchase  
10 physical natural gas on an "as-needed" basis, typically in the day-ahead or  
11 intra-day spot market. However, in 2016, the Company expects to begin  
12 purchasing a portion of the projected minimum natural gas requirement for  
13 CR7 on a longer-term basis.

14  
15 **Q6. WHAT IS YOUR EVALUATION OF THE METHODOLOGY USED TO**  
16 **FORECAST ENERGY SALES AND DELIVERED FUEL PRICES?**

17 **A6.** The Company's methodologies and models used to forecast energy sales and  
18 delivered fuel prices have evolved over a period of several years, generally  
19 conform to current modeling and forecasting practices, and have been  
20 reviewed by the Staff in this and previous proceedings. The Staff believes that  
21 these methodologies and models are reasonable.



1 **Q7. WHAT IS YOUR EVALUATION OF THE REASONABLENESS OF**  
2 **FORECASTED ENERGY SALES AND DELIVERED FUEL PRICES?**

3 **A7.** With respect to energy sales, the Company's forecast of Virginia jurisdictional  
4 energy sales for the 2016-2017 fuel year is about 2.5 percent lower than actual  
5 2015-2016 fuel year sales. KU's energy sales forecast for calendar year 2016 is  
6 less than 1 percent lower than the Company's previous forecast for calendar  
7 year 2016, in large part because of continued weakness in the mine power  
8 sector. Mine power loads historically constitute a significant portion of the  
9 Large Power Sales Class in this service territory. Mining closures also  
10 negatively impact residential and commercial sales. The Company's energy  
11 forecast is based on a normal weather distribution using twenty years of data.  
12 KU's 2016-2017 energy sales forecast assumes normal weather.

13 With respect to delivered fuel prices, the Company's forecast of  
14 delivered coal prices reflects existing contract commitments and the conditions  
15 prevailing in the coal markets when the forecast was completed in January  
16 2016. The forecast results in a total average delivered coal price of  
17 approximately 219 cents per million BTU for the 2016-2017 fuel year, which  
18 is approximately 4.5 percent lower than the 2015 actual average delivered coal  
19 price. KU is purchasing almost entirely high-sulfur coal. The Company  
20 forecasts that high-sulfur coal (mostly from the Illinois Basin) will account for  
21 93 percent of the Company's anticipated coal supply requirements in the 2016-  
22 2017 fuel year.

1           As noted above, KU continues to purchase large volumes of high-sulfur  
2 coal from the Illinois Basin. According to the Company, mining in this region  
3 is typically performed by large mines. The Company states that due to the  
4 investment and operating cost required for these large mines, suppliers require  
5 longer term contracts with price indices, rather than shorter term contracts with  
6 fixed annual price adjustments.

7           KU projects coal prices to increase for E.W. Brown and decrease for  
8 Ghent and Trimble County with an overall decrease of 5.8 percent. The  
9 changes in coal prices at these stations are the result of new contracts, the  
10 renegotiation of current contracts, and/or changes to transportation costs.

11           Natural gas prices were forecasted based on the Henry Hub natural gas  
12 futures price strip traded at the NYMEX on June 18, 2015. NYMEX Henry  
13 Hub futures prices as of January 7, 2016, are lower than the forecasted natural  
14 gas prices – by an average of \$0.57 per MMBtu for the 2016-2017 fuel year.  
15 Given the potential volatility in natural gas prices, the Staff believes that the  
16 Company's forecast is reasonable for purposes of establishing the 2016-2017  
17 fuel factor.

18           KU purchases firm natural gas pipeline capacity to ensure fuel  
19 availability for its combustion turbine units and, KU's new combined cycle  
20 unit, CR7. The new unit began commercial operation in mid-June of 2015.  
21 The Company's pipeline capacity costs are projected to be about 15 percent  
22 higher than actual costs for calendar year 2015.



1 meeting its own load, the next lowest variable cost generation is available to  
2 the other company at an amount equal to the incremental fuel cost of the  
3 selling company plus one half of the difference between the incremental fuel  
4 cost of the selling company and the avoided fuel cost of the purchasing  
5 company. After the energy requirements for both companies are met, any  
6 remaining generation is available for off-system sales.

7  
8 **Q10. PLEASE DISCUSS KU'S PROJECTED NET ENERGY SUPPLY MIX.**

9 **A10.** As shown in Attachment 3, the Company projects that approximately 72  
10 percent of its net energy supply will be provided from its coal-fired generation  
11 fleet, 24 percent from gas-fired combustion turbines, and 4 percent from net  
12 purchases.<sup>2</sup> Additionally, the Company continues to receive a small amount  
13 (less than 1 percent) of its net energy supply from hydro generation and  
14 forecasts a small percentage of energy from solar generation beginning in  
15 2016. Approximately 88 percent of KU's projected power purchases are  
16 economy purchases from its affiliate, LG&E, which has mostly coal-fired  
17 generating facilities. As compared to actual results for calendar year 2015, the  
18 projected energy supply mix reflects a decrease in the level of coal-fired  
19 generation and an increase in natural gas-fired combustion turbine. The  
20 increase in natural gas generation is driven by the commercial operation of the  
21 combined cycle unit, Cane Run 7.

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<sup>2</sup> Actual results for calendar year 2015 were 80 percent from its coal fired generation fleet, 16 percent from gas fired combustion turbines, and 4 percent from net purchases.

1 **Q11. PLEASE DISCUSS THE PROJECTED AVERAGE NET ENERGY**  
2 **SUPPLY COST.**

3 **A11.** The projected total average net energy supply cost for the fuel year is 2.434¢  
4 per kWh. This is an approximately 4 percent decrease from the actual 2.538¢  
5 per kWh average fuel cost for calendar year 2015. The Company projects a  
6 decrease in the average fuel cost of its coal-fired generation (2.353¢ per kWh  
7 for the forecast period versus 2.470¢ per kWh in 2015). The Company  
8 forecasts a decrease in the average fuel cost for its gas-fired combustion  
9 turbines (2.997¢ per kWh in 2015 versus 2.647¢ per kWh for the forecast  
10 period). Cane Run Unit 7 is expected to be a baseload unit and will have a  
11 considerable impact on the Company's gas burn. Primarily driven by the CR7  
12 addition, KU expects to generate 24 percent of the energy from natural gas in  
13 2016 compared to 16 percent in 2015.

14  
15 **Q12. PLEASE SUMMARIZE THE PROJECTED PERFORMANCE OF THE**  
16 **KU GENERATING UNITS DURING THE FORECAST PERIOD.**

17 **A12.** Attachment 4 shows the Company's forecast performance data for each KU  
18 generating unit for the period April 2016 through March 2017. The Company  
19 is forecasting that its coal-fired and combined cycle generation facilities will  
20 achieve a weighted average aggregate Equivalent Availability Factor ("EAF")  
21 of 83 percent, which is the same as actual 2015 performance and slightly  
22 higher than the actual five-year average EAF of 82.6 percent. The lengthy

1 planned outages of three steam units impacted the EAF for 2015. Excluding  
 2 these three planned outages, EAF would have been 87.0 percent.

3 Three coal fired units (E.W. Brown 3, Ghent 1, and Ghent 2) have  
 4 scheduled maintenance during the 2016-2017 fuel year and are forecasted to  
 5 have an EAF for the twelve months ending March 2017 that is less than the five  
 6 year average EAF. These units are forecasted to have EAFs of 80.4 percent,  
 7 78.3 percent, and 72.2 percent, respectively.

8 Trimble 2 performed well throughout the 2015-2016 fuel year and had  
 9 an EAF of 85.4 percent. The Company forecasts Trimble 2 will have an EAF  
 10 of 85.2 during the 2016-2017 fuel year.

11 In addition to forecast EAFs, Attachment 4 provides each generating  
 12 unit's projected Capacity Factor ("CF"), Heat Rate, net output in megawatt-  
 13 hours ("MWh"), and fuel expense as defined in the Commission's Definitional  
 14 Framework of Fuel Expenses for Old Dominion Power Company (Attachment  
 15 5). With respect to Heat Rate, the Company projects that its coal-fired  
 16 generation units will achieve an aggregate thermal efficiency of 10,704 Btu per  
 17 kWh which compares favorably to historical data.

18

19 **Q13. PLEASE DESCRIBE THE COMPANY'S PROJECTIONS OF POWER**  
 20 **PURCHASES AND SALES FOR THE FORECAST PERIOD.**

21 **A13.** Attachment 6 details KU's projections of wholesale power purchases and off-  
 22 system sales for the forecast period. The Company forecasted that it will

1 purchase approximately 1.66 million MWh at an average cost of 2.935¢ per  
2 kWh. Approximately 88 percent of the projected wholesale purchases are from  
3 LG&E pursuant to the PSSA at an average cost of 2.955¢ per kWh.

4 With respect to off-system sales, KU forecasted total deliveries of  
5 669,328 MWh at an average price of 3.163¢ per kWh. Approximately 91  
6 percent of these sales are projected to LG&E through the PSSA at a forecast  
7 average price of 3.066¢ per kWh. The remaining sales are to the wholesale  
8 market. The Company projects off-system sales margins of \$922,140 for the  
9 forecast period, 75 percent of which are credited to projected fuel expenses.

10  
11 **Q14. WHAT ARE THE STAFF'S CONCLUSIONS AND**  
12 **RECOMMENDATIONS?**

13 **A14.** The Staff believes that the Company's projected Virginia jurisdictional fuel  
14 expenses and sales for the forecast period are reasonable. The Staff  
15 recommends that the Commission accept KU's proposed forecast of energy  
16 sales and delivered fuel prices for the purpose of establishing a 2016-2017 fuel  
17 factor and approve the proposed fuel factor of 2.286¢ per kWh.

18  
19 **Q15. DOES THIS CONCLUDE YOUR TESTIMONY?**

20 **A15.** Yes

Kentucky Utilities Company  
 PROPOSED FUEL FACTOR  
 April 1, 2015 - March 31, 2016

	PREVIOUS FUEL FACTOR (¢/kWh)	COMPANY PROPOSED AND INTERIM FUEL FACTOR (¢/kWh)
	<u>                    </u>	<u>                    </u>
In-period Factor	2.923	2.616
Correction Factor	<u>(0.060)</u>	<u>(0.330)</u>
Total Fuel Factor	2.863	2.286

Based on Projected:

Fuel Over-Recovery Balance	\$2,340,053
Virginia Jurisdictional Fuel Expense	\$18,526,043
Virginia Jurisdictional Sales (kWh)	708,288,805



## Attachment 2

**Standards for Fuel Cost Projections of Electric Utilities**

- A sophisticated "state-of-the-art" production costing model should be utilized for projecting fuel expenses.
- Key input data and assumptions should reflect historic data. Any significant deviation from historic trends should be adequately explained and evaluated for reasonableness.
- Key input data such as load forecasts, generating unit characteristics, fuel data, and system parameters should be developed in the same relative time frame and reflect consistent assumptions.
- Demand forecasts should be current and reflect economic growth, normal weather, the price of electricity, elasticity assumptions, appliance saturations, income and population changes in the utility's service area. They should also reflect projections of energy, peak demand and the effects of demand-side options.
- Expected fuel prices should reflect historic fuel costs adjusted for any known dynamics of the projection: i.e., labor contracts, expected operation of the spot market, current fuel contracts, the world fuel market, inventory levels and fuel availabilities, purchasing volumes, coal severance taxes, etc.
- Unit operations should consider planned maintenance, forced outages, expected dispatch levels, historical performance levels, seasonal capabilities, as well as ongoing enhancements or unit deterioration.
- Dispatch orders should reflect such variables as system economics, unit availabilities, minimum operating levels, heat rates, and terms and conditions of purchased power contracts.
- Purchase power levels should consider need, system economics, power availability and transmission constraints.
- Projections supporting the development of cogeneration rates should include a comparison of key input data and assumptions from the last fuel projection filed with the Commission. Major changes should be adequately explained.

Attachment 3

Kentucky Utilities Company  
NET ENERGY SUPPLY and FUEL COST

ACTUAL			
April 2013 - March 2014	MWh	% of Total	¢/kWh
Company Generation			
COAL	19,505,317	88%	2.558
OIL	-		0.000
GAS CT	326,938	1%	9.048
HYDRO	106,623		
Purchases	2,694,800		2.598
Sales	360,146		3.164
NET PURCHASES	2,334,654	10%	
<b>TOTAL NET OUTPUT</b>	<b>22,273,532</b>	<b>100%</b>	<b>2.637</b>

April 2014 - March 2015	MWh	% of Total	¢/kWh
Company Generation			
COAL	18,548,042	82%	2.599
OIL	-		0.000
GAS CT	982,748	4%	8.005
HYDRO	72,287		
Purchases	3,486,423		2.874
Sales	376,669		3.832
NET PURCHASES	3,109,754	14%	
<b>TOTAL NET OUTPUT</b>	<b>22,712,831</b>	<b>100%</b>	<b>2.847</b>

12 months ending December 2015			
Company Generation	MWh	% of Total	¢/kWh
COAL	17,325,294	80%	2.470
OIL	-		0.000
GAS CT	3,533,296	16%	2.997
HYDRO	97,843		
Purchases	1,731,455		2.539
Sales	908,374		2.794
NET PURCHASES	823,081	4%	
<b>TOTAL NET OUTPUT</b>	<b>21,779,614</b>	<b>100%</b>	<b>2.538</b>

FORECAST			
April 2013 - March 2014	MWh	% of Total	¢/kWh
Company Generation			
COAL	18,545,524	81%	2.602
OIL	0		
GAS CT	583,723	3%	6.061
HYDRO	73,120		
Purchases	3,829,142		2.922
Sales	181,607		3.042
NET PURCHASES	3,647,535	16%	
<b>TOTAL NET OUTPUT</b>	<b>22,849,902</b>	<b>100.0%</b>	<b>2.732</b>

April 2014- March 2015	MWh	% of Total	¢/kWh
Company Generation			
COAL	17,683,922	78%	2.687
OIL	0		
GAS CT	891,885	4%	5.949
HYDRO	77,931		
Purchases	4,172,345		3.047
Sales	163,059		3.212
NET PURCHASES	4,009,286	18%	
<b>TOTAL NET OUTPUT</b>	<b>22,643,024</b>	<b>100.0%</b>	<b>2.869</b>

FORECAST- CURRENT FUEL FACTOR			
April 2015 - March 2016	MWh	% of Total	¢/kWh
Company Generation			
COAL	15,945,447	70%	2.623
OIL	0		
GAS CT	5,159,236	23%	2.990
HYDRO	74,347		
Purchases	1,969,841		3.068
Sales	504,779		3.177
NET PURCHASES	1,464,862	6%	
<b>TOTAL NET OUTPUT</b>	<b>22,643,892</b>	<b>100.0%</b>	<b>2.725</b>

FORECAST - PROPOSED FUEL FACTOR			
April 2016- March 2017	MWh	% of Total	¢/kWh
Company Generation			
COAL	16,348,046	72%	2.353
OIL	0		
GAS CT	5,380,205	24%	2.647
HYDRO	71,207		
SOLAR	8,365		
Purchases	1,658,873		2.935
Sales	669,328		3.163
NET PURCHASES	989,545	4%	
<b>TOTAL NET OUTPUT</b>	<b>22,797,368</b>	<b>100.0%</b>	<b>2.434</b>

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Kentucky Utilities Company  
**GENERATING UNIT PERFORMANCE FORECAST**

Attachment 4

April 2016 - March 2017

Unit	MDC MW	EAF %	CF %	Heat Rate Btu/kWh	Net Output MWh	Fuel Expense	
						\$	¢/kWh
Brown 1	106	88	17	11,836	158,369	5,696,636	3.597
Brown 2	166	91	26	10,869	380,395	12,315,759	3.238
Brown 3	410	80	22	12,346	796,711	29,373,191	3.687
Ghent 1	474	78	72	10,803	3,045,787	69,054,087	2.267
Ghent 2	495	72	64	10,670	2,777,824	62,360,307	2.245
Ghent 3	485	85	75	11,107	3,241,349	75,762,631	2.337
Ghent 4	485	91	72	11,071	3,078,415	71,747,501	2.331
Trimble 2	445	85	71	9,243	2,869,196	58,328,670	2.033
<b>Total/Avg Coal</b>	<b>3066</b>	<b>83</b>	<b>61</b>	<b>10,704</b>	<b>16,348,046</b>	<b>384,638,782</b>	<b>2.353</b>
Haefling 1-2	24	90	0	23,541	48	9,659	20.123
Brown 5	130	82	2	13,211	20,732	681,472	3.287
Brown 6	146	88	0	11,226	4,814	138,890	2.885
Brown 7	146	90	1	11,207	8,281	241,853	2.921
Brown 8	121	86	3	14,340	33,521	1,214,056	3.622
Brown 9	121	90	3	14,137	29,201	1,037,821	3.554
Brown 10	121	78	2	14,361	20,157	762,505	3.783
Brown 11	121	90	3	14,288	27,143	976,523	3.598
Paddy's Run	147	88	4	10,775	62,866	1,906,992	3.033
Trimble 5	159	90	20	10,861	300,896	8,973,048	2.982
Trimble 6	159	90	14	10,896	212,846	6,404,878	3.009
Trimble 7	159	90	13	10,878	194,483	5,819,585	2.992
Trimble 8	159	90	4	10,853	62,708	1,847,852	2.947
Trimble 9	159	90	10	10,880	146,510	4,361,522	2.977
Trimble 10	159	90	3	10,869	37,538	1,108,645	2.953
Cane Run	521	90	88	6,820	4,218,462	80,776,794	1.915
<b>Total/Avg CTs</b>	<b>2552</b>	<b>90</b>	<b>80</b>	<b>2,426</b>	<b>5,380,206</b>	<b>116,262,095</b>	<b>2.161</b>
					<b>Capacity Charges</b>	<b>26,172,934</b>	
					<b>Total Gas</b>	<b>142,435,029</b>	<b>2.647</b>
Dix Dam 1-3 Hydro	24				71,207		
Brown Solar	6				8,365		
<b>TOTAL/AVG SYSTEM</b>	<b>5,642</b>				<b>21,807,824</b>	<b>527,073,811</b>	<b>2.417</b>

**NOTES:**

1. MDC = Maximum Dependable Capacity (summer net)
2. EAF = Equivalent Availability Factor
3. CF = Capacity Factor

VIRGINIA STATE CORPORATION COMMISSION'S  
DEFINITIONAL FRAMEWORK OF FUEL EXPENSES  
FOR OLD DOMINION POWER COMPANY

- a. The cost of fossil fuels shall be those items initially charged to account 151 and cleared to accounts 501, 518 and 547 on the basis of fuel used. In those instances where a fuel stock account (151) is not maintained, e.g., gas for combustion turbines, the amount shall be based on the cost of fuel consumed and entered in account 547.
- b. The cost of nuclear fuel shall be the amount contained in account 518, excluding lease finance charges, except that if account 518 also contains any expense for fossil fuel which has already been included in the cost of fossil fuel, it shall be deducted from this account.
- c. Total energy costs associated with purchased power and charged to account 555 shall be recoverable as fuel costs. The demand component of such power purchases shall be recoverable as fuel costs except when such purchases are made for reliability reasons or the maintenance of reserve margin requirements.
- d. All refunds of fuel costs resulting from overcharges, late delivery, or any other reason and all recoveries and adjustments of whatever nature affecting the price of fuel shall be passed on through these proceedings.
- e. Company shall be permitted to adjust for system losses through development of a fuel factor based upon fuel costs divided by sales or through the application of a separately derived loss factor applied to a fuel factor based on net energy requirements.
- f. Energy revenues associated with off-system sales of power shall be credited against fuel factor expenses in an amount equal to the total incremental fuel factor costs incurred in the production and delivery of such sales. In addition, 75 percent of the total annual margins from off-system sales shall be credited against fuel factor expenses.

Kentucky Utilities Company  
PURCHASE AND INTERCHANGE TRANSACTIONS FORECAST  
April 2016- March 2017

PURCHASES	MWh	Energy \$	¢/kWh
Long Term Firm - Ohio Valley Electric Corp. (OVEC)	200,153	5,579,913	2.788
Economy from LG&E (under the PSSA)	1,458,085	43,080,743	2.955
Non-Firm Market Economy to supply native load	635	34,554	5.442
Total	1,658,873	48,695,210	2.935
OFF-SYSTEM SALES			
Economy to LG&E (under the PSSA)	609,228	18,679,904	3.066
Short-Term Economy to Market	60,101	2,489,136	4.142
	669,329	21,169,040	3.163
NET PURCHASES	989,544	27,526,170	

Note: Capacity charges do not flow through the Virginia fuel factor and are not shown.