

DOMINION ENERGY NORTH CAROLINA
DOCKET NO. E-22, SUB 546

RULE R8-55
INFORMATION AND WORKPAPERS
AUGUST 23, 2017

**DOMINION ENERGY NORTH CAROLINA
DOCKET NO. E-22, SUB 546
RULE R8-55**

Rule R8-55 (e) (1)

Actual test period kWh sales, peak demand by customer class, fuel-related revenues, and fuel-related expenses for the utility's total system and for its North Carolina retail operations.

Response

See Exhibit RTC-1, Schedules 1 through 5 attached to the testimony of Ronnie T. Campbell for fuel-related expenses, actual test period kWh sales and fuel-related revenues for total system and for North Carolina retail operations.

**DOMINION ENERGY NORTH CAROLINA
DOCKET NO. E-22, SUB 546
RULE R8-55**

Rule R8-55 (e) (2):

Test period kWh sales normalized for weather, customer growth and usage. Said normalized kWh sales shall be for the utility's total system and for its North Carolina retail operations. The methodology used for such normalization shall be the same methodology adopted by the Commission, if any, in the utility's last general rate case.

Response:

Attached are the June 2017 test period kWh sales normalized for weather, customer growth and increased usage for the Company's total system and for the Company's North Carolina retail service. The methodology used for the normalization is consistent with the methodology used in Dominion Energy North Carolina's last general rate case (Docket No. E-22, Sub 532) and the last fuel charge adjustment case (Docket No. E-22, Sub 534).

**VIRGINIA ELECTRIC AND POWER COMPANY
SUMMARY OF REGRESSION ANALYSIS
TWELVE MONTHS ENDED JUNE 30, 2017**

<u>JURISDICTION / CLASS</u>	<u>PERIOD MONTHS</u>	<u>CURVE TYPE</u>	<u>R-SQUARE</u>	<u>ACTUAL END OF PERIOD CUSTOMERS</u>	<u>PREDICTED END OF PERIOD CUSTOMERS</u>
NORTH CAROLINA					
RESIDENTIAL - 1	36	POLYNOMIAL	0.9490	102,408	102,316
COMMERCIAL - 7	36	POLYNOMIAL	0.9534	73	73
OUTDOOR LIGHTING - 26	36	POLYNOMIAL	0.9437	12,116	12,115
STREET LIGHTS - 26	36	POLYNOMIAL	0.6801	241	242
TRAFFIC LIGHTS - 26	36	POLYNOMIAL	0.8014	197	197
PUBLIC AUTHORITY - 30	36	POLYNOMIAL	0.6237	1,084	1,086
PUBLIC AUTHORITY - 42	36	POLYNOMIAL	0.7286	766	763
COMMERCIAL - 5	36	POLYNOMIAL	0.9438	15,778	15,764
COMMERCIAL - 6	36	POLYNOMIAL	0.6843	34	34
INDUSTRIAL - 5	36	POLYNOMIAL	0.6695	23	23
INDUSTRIAL - 6	36	POLYNOMIAL	0.1057	25	25
INDUSTRIAL - 6VP	36	-NA-		3	3 #
INDUSTRIAL - NS	36	-NA-		1	1 #
VIRGINIA					
RESIDENTIAL - 1	36	POLYNOMIAL	0.9964	2,194,842	2,194,281
COMMERCIAL - 7	36	POLYNOMIAL	0.9928	427	428
OUTDOOR LIGHTING - 26	36	POLYNOMIAL	0.8381	56,089	56,108
CHURCHES	36	POLYNOMIAL	0.6284	3,041	3,039
COMMERCIAL	36	POLYNOMIAL	0.9950	222,060	222,092
INDUSTRIAL	36	POLYNOMIAL	0.6965	594	589
INDUSTRIAL - 56-235.2	36	-NA-		1	1 #
COUNTY					
COUNTY ML&P	36	POLYNOMIAL	0.8461	4,042	4,041
MUNICIPAL ML&P	36	POLYNOMIAL	0.9430	17,603	17,560
COUNTY/MUNI STREET LIGHTS	36	POLYNOMIAL	0.9355	958	960
COUNTY/MUNI TRAFFIC LIGHTS	36	POLYNOMIAL	0.9955	1,129	1,134
STATE					
MISCELLANEOUS	36	POLYNOMIAL	0.8998	5,241	5,246
STREET LIGHTS	36	POLYNOMIAL	0.9313	222	224
TRAFFIC LIGHTS	36	POLYNOMIAL	0.9990	1,450	1,451
MS - GOVT. SERVICE	36	POLYNOMIAL	0.8414	56	55

ACTUAL CUSTOMERS USED IN THESE RATE SCHEDULES

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VIRGINIA ELECTRIC AND POWER COMPANY
SUMMARY OF KWH ATTRIBUTABLE TO
CHANGE IN USAGE, WEATHER NORMALIZATION AND CUSTOMER GROWTH
12 MONTHS ENDED JUNE 30, 2017
SYSTEM

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Obs	JURISDICTION	KWH ATTRIBUTED TO INCREASED USAGE	TOTAL WEATHER EFFECT KWH	KWH ATTRIBUTED TO CUSTOMER GROWTH	TOTAL KWH	TOTAL KWH SALES AT GENERATION LEVEL
1	NORTH CAROLINA	-30,654,482	49,588,559	5,238,872	24,172,949	25,251,571
2	VIRGINIA	660,591,710	161,616,013	145,890,423	968,098,146	1,011,295,653
3	COUNTY/MUNICIPAL	114,409,944	-33,142,312	-22,413,932	58,853,700	61,479,811
4	STATE	-11,158,143	-11,517,252	9,910,576	-12,764,819	-13,334,398
5	MS - GOVERNMENTAL	-12,242,614	-41,277,315	-58,035,643	-111,555,572	-116,533,293
6	FERC	0	27,455,685	0	27,455,685	28,680,785
7	ODEC	0	0	0	0	0
		=====	=====	=====	=====	=====
		720,946,416	152,723,378	80,590,296	954,260,090	996,840,129

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NORTH CAROLINA POWER
SUMMARY OF KWH ATTRIBUTABLE TO
CHANGE IN USAGE, WEATHER NORMALIZATION AND CUSTOMER GROWTH
12 MONTHS ENDED JUNE 30, 2017
NORTH CAROLINA JURISDICTIONAL

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Obs	TYPE	KWH ATTRIBUTED TO INCREASED USAGE	TOTAL WEATHER EFFECT KWH	KWH ATTRIBUTED TO CUSTOMER GROWTH	TOTAL KWH
1	NC RESIDENTIAL	1,912,184	42,343,840	845,659	45,101,683
2	NC SCHEDULE 7	21,464	84,376	-3,527	102,313
3	NC OUTDOOR LIGHTING	-28,961	0	-15,138	-44,099
4	NC STREET LIGHTS	-71,032	0	86,051	15,019
5	NC TRAFFIC LIGHTS	-4,520	0	0	-4,520
6	NC PUBLIC AUTHORITY	-170,152	-920,526	23,468	-1,067,210
7	NC SCHEDULE 42	-452,784	1,470,932	143,211	1,161,359
8	NC COMMERCIAL - 5	-6,055,977	4,891,099	1,085,318	-79,560
9	NC COMMERCIAL - 6	-1,329,697	0	3,022,785	1,693,088
10	NC INDUSTRIAL - 5	-52,125	1,718,838	51,045	1,717,758
11	NC INDUSTRIAL - 6	-24,199,854	0	0	-24,199,854
12	NC INDUSTRIAL - 6VP	1,362,609	0	0	1,362,609
13	NC INDUSTRIAL - NUCOR	-1,585,636	0	0	-1,585,636
		=====	=====	=====	=====
		-30,654,482	49,588,559	5,238,872	24,172,949

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017

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CUNCRES
RESIDENTIAL
NORTH CAROLINA JURISDICTIONAL

Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	172,878	101,601	1,702					
2	2015	8	162,205	101,649	1,596					
3	2015	9	143,173	101,681	1,408					
4	2015	10	110,555	101,618	1,088					
5	2015	11	87,286	101,667	859					
6	2015	12	136,635	101,781	1,342					
7	2016	1	152,813	101,899	1,500					
8	2016	2	157,684	101,929	1,547					
9	2016	3	146,009	101,896	1,433					
10	2016	4	107,586	101,924	1,056					
11	2016	5	89,147	101,980	874					
12	2016	6	118,859	102,058	1,165	1,584,831	15,568		102,034	
13	2016	7	144,353	102,155	1,413					
14	2016	8	181,946	102,297	1,779					
15	2016	9	144,661	102,204	1,415					
16	2016	10	106,573	102,172	1,043					
17	2016	11	84,667	102,194	828					
18	2016	12	129,141	102,234	1,263					
19	2017	1	169,773	102,288	1,660					
20	2017	2	166,811	102,230	1,632					
21	2017	3	143,455	102,306	1,402					
22	2017	4	106,594	102,298	1,042					
23	2017	5	92,850	102,356	907					
24	2017	6	125,028	102,408	1,221	1,595,854	15,606	37	102,316	1,912,184

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NORTH CAROLINA POWER
DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
12 MONTHS ENDED JUNE 30, 2017
CUNCRES
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NORTH CAROLINA JURISDICTIONAL

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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	ACTUAL MWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED MWH	TOTAL ACTUAL MWH	TOTAL WEATHER EFFECT KWH (1000 X MWH)
1	2016	7	144,353	145,531	-1,178			
2	2016	8	181,946	198,332	-16,386			
3	2016	9	144,661	161,917	-17,256			
4	2016	10	106,573	112,953	-6,380			
5	2016	11	84,667	74,857	9,810			
6	2016	12	129,141	125,853	3,288			
7	2017	1	169,773	160,894	8,879			
8	2017	2	166,811	133,038	33,773			
9	2017	3	143,455	122,422	21,033			
10	2017	4	106,594	96,545	10,049			
11	2017	5	92,850	94,105	-1,255			
12	2017	6	125,028	127,063	-2,035	1,595,854	1,553,510	42,343,840

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CUSTOMER GROWTH
12 MONTHS ENDED JUNE 30, 2017
CUNCRES

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS (TO NEAREST INTEGER)	WEATHER NORMALIZED MWH	AVERAGE KWH WEATHER NORMALIZED	CHANGE IN WEA. NORM. KWH	TOTAL CHANGE IN WEA. NORM. KWH
1	2016	7	102,079	102,155	161	144,353	1,413	227,506	
2	2016	8	102,123	102,297	19	181,946	1,779	33,793	
3	2016	9	102,166	102,204	112	144,661	1,415	158,526	
4	2016	10	102,207	102,172	144	106,573	1,043	150,203	
5	2016	11	102,245	102,194	122	84,667	828	101,076	
6	2016	12	102,278	102,234	82	129,141	1,263	103,582	
7	2017	1	102,306	102,288	28	169,773	1,660	46,473	
8	2017	2	102,327	102,230	86	166,811	1,632	140,328	
9	2017	3	102,341	102,306	10	143,455	1,402	14,022	
10	2017	4	102,344	102,298	18	106,594	1,042	18,756	
11	2017	5	102,336	102,356	-40	92,850	907	-36,285	
12	2017	6	102,316	102,408	-92	125,028	1,221	-112,321	845,659
			=====	=====					
			1,227,142		650				

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUNC78
SCHEDULE 7
NORTH CAROLINA JURISDICTIONAL

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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	149	76	1,955					
2	2015	8	146	76	1,917					
3	2015	9	127	76	1,673					
4	2015	10	94	76	1,242					
5	2015	11	76	76	1,001					
6	2015	12	147	75	1,955					
7	2016	1	155	75	2,065					
8	2016	2	199	75	2,657					
9	2016	3	187	74	2,525					
10	2016	4	101	74	1,359					
11	2016	5	73	74	990					
12	2016	6	91	74	1,236	1,545	20,574		74	
13	2016	7	123	74	1,668					
14	2016	8	152	73	2,079					
15	2016	9	138	74	1,858					
16	2016	10	93	73	1,278					
17	2016	11	78	73	1,075					
18	2016	12	120	73	1,648					
19	2017	1	194	73	2,659					
20	2017	2	192	73	2,627					
21	2017	3	159	73	2,171					
22	2017	4	113	73	1,546					
23	2017	5	88	73	1,202					
24	2017	6	99	73	1,352	1,548	21,162	588	73	21,464

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NORTH CAROLINA POWER
 DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
 12 MONTHS ENDED JUNE 30, 2017
 CUNC78
 SCHEDULE 7
 NORTH CAROLINA JURISDICTIONAL

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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	ACTUAL MWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED MWH	TOTAL ACTUAL MWH	TOTAL WEATHER EFFECT KWH (1000 X MWH)
1	2016	7	123	125	-2			
2	2016	8	152	174	-22			
3	2016	9	138	161	-23			
4	2016	10	93	100	-7			
5	2016	11	78	62	16			
6	2016	12	120	115	5			
7	2017	1	194	180	14			
8	2017	2	192	138	54			
9	2017	3	159	125	34			
10	2017	4	113	96	17			
11	2017	5	88	87	1			
12	2017	6	99	101	-2	1,548	1,464	84,376

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CUSTOMER GROWTH
12 MONTHS ENDED JUNE 30, 2017
CUNC78

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS (TO NEAREST INTEGER)	WEATHER NORMALIZED MWH	AVERAGE KWH WEATHER NORMALIZED	CHANGE IN WEA. NORM. KWH	TOTAL CHANGE IN WEA. NORM. KWH
1	2016	7	74	74	-1	123	1,662	-1,662	
2	2016	8	74	73	0	152	2,082	0	
3	2016	9	73	74	-1	138	1,865	-1,865	
4	2016	10	73	73	0	93	1,274	0	
5	2016	11	73	73	0	78	1,068	0	
6	2016	12	73	73	0	120	1,644	0	
7	2017	1	73	73	0	194	2,658	0	
8	2017	2	73	73	0	192	2,630	0	
9	2017	3	73	73	0	159	2,178	0	
10	2017	4	73	73	0	113	1,548	0	
11	2017	5	73	73	0	88	1,205	0	
12	2017	6	73	73	0	99	1,356	0	-3,527
			=====	=====	=====				
			878		-2				

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUNCLTS
OUTDOOR LIGHTING
NORTH CAROLINA JURISDICTIONAL

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Obs	YEAR	MONTH	ACTUAL MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	1,505	12,024	125					
2	2015	8	1,404	12,036	117					
3	2015	9	1,400	12,034	116					
4	2015	10	1,447	12,045	120					
5	2015	11	1,203	12,057	100					
6	2015	12	1,448	12,080	120					
7	2016	1	1,366	12,112	113					
8	2016	2	1,412	12,119	117					
9	2016	3	1,457	12,113	120					
10	2016	4	1,411	12,123	116					
11	2016	5	1,403	12,119	116					
12	2016	6	1,513	12,102	125	16,969	1,405		12,116	
13	2016	7	1,307	12,111	108					
14	2016	8	1,563	12,128	129					
15	2016	9	1,418	12,127	117					
16	2016	10	1,415	12,137	117					
17	2016	11	1,254	12,124	103					
18	2016	12	1,420	12,113	117					
19	2017	1	1,412	12,130	116					
20	2017	2	1,382	12,135	114					
21	2017	3	1,567	12,135	129					
22	2017	4	1,253	12,131	103					
23	2017	5	1,462	12,122	121					
24	2017	6	1,522	12,116	126	16,975	1,400	-5	12,115	-28,961

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NORTH CAROLINA POWER
 DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
 12 MONTHS ENDED JUNE 30, 2017
 CUNCLTS
 OUTDOOR LIGHTING
 NORTH CAROLINA JURISDICTIONAL

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Obs	YEAR	MONTH	ACTUAL MWH	TOTAL ACTUAL KWH (1000 X MWH)
1	2016	7	1,307	
2	2016	8	1,563	
3	2016	9	1,418	
4	2016	10	1,415	
5	2016	11	1,254	
6	2016	12	1,420	
7	2017	1	1,412	
8	2017	2	1,382	
9	2017	3	1,567	
10	2017	4	1,253	
11	2017	5	1,462	
12	2017	6	1,522	16,975,000

NO WEATHER NORMALIZATION EFFECT

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NORTH CAROLINA POWER
MONTHLY KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUNCLTS

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS	ACTUAL MWH	AVERAGE KWH	CHANGE IN KWH	TOTAL CHANGE IN KWH
1	2016	7	12,121	12,111	4	1,307	108	432	
2	2016	8	12,125	12,128	-13	1,563	129	-1,675	
3	2016	9	12,129	12,127	-12	1,418	117	-1,403	
4	2016	10	12,131	12,137	-22	1,415	117	-2,565	
5	2016	11	12,133	12,124	-9	1,254	103	-931	
6	2016	12	12,134	12,113	2	1,420	117	234	
7	2017	1	12,134	12,130	-15	1,412	116	-1,746	
8	2017	2	12,133	12,135	-20	1,382	114	-2,278	
9	2017	3	12,130	12,135	-20	1,567	129	-2,583	
10	2017	4	12,126	12,131	-16	1,253	103	-1,653	
11	2017	5	12,121	12,122	-7	1,462	121	-844	
12	2017	6	12,115	12,116	-1	1,522	126	-126	
			=====	=====	=====				
				145,509	-129				
									-15,138

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017

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CUNCPA
PUBLIC AUTHORITY
NORTH CAROLINA JURISDICTIONAL

Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	8,288	1,100	7,535					
2	2015	8	7,685	1,095	7,019					
3	2015	9	8,061	1,092	7,382					
4	2015	10	7,320	1,092	6,703					
5	2015	11	5,950	1,098	5,419					
6	2015	12	6,747	1,099	6,139					
7	2016	1	6,086	1,089	5,589					
8	2016	2	6,817	1,088	6,265					
9	2016	3	6,568	1,088	6,037					
10	2016	4	5,997	1,082	5,542					
11	2016	5	6,090	1,078	5,650					
12	2016	6	7,276	1,078	6,750	82,885	76,029		1,085	
13	2016	7	7,623	1,079	7,065					
14	2016	8	7,844	1,084	7,236					
15	2016	9	8,083	1,082	7,471					
16	2016	10	7,164	1,082	6,621					
17	2016	11	5,812	1,091	5,327					
18	2016	12	6,478	1,094	5,921					
19	2017	1	6,646	1,092	6,086					
20	2017	2	6,489	1,088	5,964					
21	2017	3	6,427	1,085	5,924					
22	2017	4	5,820	1,086	5,359					
23	2017	5	6,273	1,085	5,781					
24	2017	6	7,545	1,084	6,960	82,203	75,715	-313	1,086	-170,152

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NORTH CAROLINA POWER
DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
12 MONTHS ENDED JUNE 30, 2017
CUNCPA
PUBLIC AUTHORITY
NORTH CAROLINA JURISDICTIONAL

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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	ACTUAL MWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED MWH	TOTAL ACTUAL MWH	TOTAL WEATHER EFFECT KWH (1000 X MWH)
1	2016	7	7,623	7,666	-43			
2	2016	8	7,844	8,392	-548			
3	2016	9	8,083	8,675	-592			
4	2016	10	7,164	7,538	-374			
5	2016	11	5,812	5,756	56			
6	2016	12	6,478	6,441	37			
7	2017	1	6,646	6,528	118			
8	2017	2	6,489	6,062	427			
9	2017	3	6,427	6,169	258			
10	2017	4	5,820	5,761	59			
11	2017	5	6,273	6,496	-223			
12	2017	6	7,545	7,640	-95	82,203	83,124	-920,526

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CUSTOMER GROWTH
12 MONTHS ENDED JUNE 30, 2017
CUNCPA

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS (TO NEAREST INTEGER)	WEATHER NORMALIZED MWH	AVERAGE KWH WEATHER NORMALIZED	CHANGE IN WEA. NORM. KWH	TOTAL CHANGE IN WEA. NORM. KWH
1	2016	7	1,085	1,079	7	7,623	7,065	49,454	
2	2016	8	1,085	1,084	2	7,844	7,236	14,472	
3	2016	9	1,085	1,082	4	8,083	7,470	29,882	
4	2016	10	1,085	1,082	4	7,164	6,621	26,484	
5	2016	11	1,085	1,091	-5	5,812	5,327	-26,636	
6	2016	12	1,086	1,094	-8	6,478	5,921	-47,371	
7	2017	1	1,086	1,092	-6	6,646	6,086	-36,516	
8	2017	2	1,086	1,088	-2	6,489	5,964	-11,928	
9	2017	3	1,087	1,085	1	6,427	5,924	5,924	
10	2017	4	1,087	1,086	0	5,820	5,359	0	
11	2017	5	1,087	1,085	1	6,273	5,782	5,782	
12	2017	6	1,086	1,084	2	7,545	6,960	13,921	23,468
			=====	=====	=====				
				13,032	0				

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUNC42
SCHEDULE 42
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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	3,670	749	4,900					
2	2015	8	3,382	749	4,515					
3	2015	9	3,549	750	4,732					
4	2015	10	3,260	754	4,323					
5	2015	11	2,741	751	3,650					
6	2015	12	4,073	750	5,431					
7	2016	1	4,006	753	5,320					
8	2016	2	4,487	751	5,975					
9	2016	3	4,329	749	5,780					
10	2016	4	3,190	761	4,192					
11	2016	5	2,741	759	3,612					
12	2016	6	3,155	757	4,167	42,583	56,597		756	
13	2016	7	3,132	759	4,127					
14	2016	8	3,729	760	4,906					
15	2016	9	3,411	759	4,494					
16	2016	10	3,198	758	4,219					
17	2016	11	2,644	760	3,479					
18	2016	12	3,822	761	5,022					
19	2017	1	4,397	759	5,793					
20	2017	2	4,550	757	6,011					
21	2017	3	4,022	762	5,278					
22	2017	4	3,179	762	4,172					
23	2017	5	2,855	764	3,737					
24	2017	6	3,196	766	4,173	42,135	55,410	-1,187	763	-452,784

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NORTH CAROLINA POWER
 DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
 12 MONTHS ENDED JUNE 30, 2017
 CUNC42
 SCHEDULE 42
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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	ACTUAL MWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED MWH	TOTAL ACTUAL MWH	TOTAL WEATHER EFFECT KWH (1000 X MWH)
1	2016	7	3,132	3,149	-17			
2	2016	8	3,729	3,980	-251			
3	2016	9	3,411	3,670	-259			
4	2016	10	3,198	3,238	-40			
5	2016	11	2,644	2,396	248			
6	2016	12	3,822	3,745	77			
7	2017	1	4,397	4,198	199			
8	2017	2	4,550	3,788	762			
9	2017	3	4,022	3,543	479			
10	2017	4	3,179	2,928	251			
11	2017	5	2,855	2,811	44			
12	2017	6	3,196	3,218	-22	42,135	40,664	1,470,932

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DERIVATION OF KWH ATTRIBUTABLE TO CUSTOMER GROWTH
12 MONTHS ENDED JUNE 30, 2017
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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS (TO NEAREST INTEGER)	WEATHER NORMALIZED MWH	AVERAGE KWH WEATHER NORMALIZED	CHANGE IN WEA. NORM. KWH	TOTAL CHANGE IN WEA. NORM. KWH
1	2016	7	757	759	4	3,132	4,126	16,506	
2	2016	8	758	760	3	3,729	4,907	14,720	
3	2016	9	758	759	4	3,411	4,494	17,976	
4	2016	10	759	758	5	3,198	4,219	21,095	
5	2016	11	760	760	3	2,644	3,479	10,437	
6	2016	12	761	761	2	3,822	5,022	10,045	
7	2017	1	761	759	4	4,397	5,793	23,173	
8	2017	2	762	757	6	4,550	6,011	36,063	
9	2017	3	762	762	1	4,022	5,278	5,278	
10	2017	4	763	762	1	3,179	4,172	4,172	
11	2017	5	763	764	-1	2,855	3,737	-3,737	
12	2017	6	763	766	-3	3,196	4,172	-12,517	143,211
			=====	=====	=====				
				9,127	29				

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUNCCOM5
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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	69,417	15,629	4,442					
2	2015	8	66,817	15,641	4,272					
3	2015	9	68,434	15,629	4,379					
4	2015	10	63,907	15,628	4,089					
5	2015	11	49,372	15,646	3,156					
6	2015	12	59,277	15,657	3,786					
7	2016	1	53,618	15,675	3,421					
8	2016	2	53,488	15,685	3,410					
9	2016	3	53,603	15,712	3,412					
10	2016	4	49,228	15,701	3,135					
11	2016	5	46,794	15,721	2,977					
12	2016	6	57,064	15,736	3,626	691,020	44,104		15,713	
13	2016	7	62,354	15,720	3,967					
14	2016	8	71,910	15,740	4,569					
15	2016	9	69,367	15,742	4,406					
16	2016	10	60,927	15,723	3,875					
17	2016	11	47,437	15,745	3,013					
18	2016	12	54,124	15,728	3,441					
19	2017	1	55,712	15,723	3,543					
20	2017	2	52,966	15,714	3,371					
21	2017	3	52,901	15,738	3,361					
22	2017	4	46,213	15,757	2,933					
23	2017	5	50,519	15,766	3,204					
24	2017	6	57,622	15,778	3,652	682,051	43,335	-768	15,764	-6,055,977

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NORTH CAROLINA POWER
DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
12 MONTHS ENDED JUNE 30, 2017
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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	ACTUAL MWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED MWH	TOTAL ACTUAL MWH	TOTAL WEATHER EFFECT KWH (1000 X MWH)
1	2016	7	62,354	62,596	-242			
2	2016	8	71,910	75,199	-3,289			
3	2016	9	69,367	72,865	-3,498			
4	2016	10	60,927	62,471	-1,544			
5	2016	11	47,437	45,892	1,545			
6	2016	12	54,124	53,577	547			
7	2017	1	55,712	54,203	1,509			
8	2017	2	52,966	47,249	5,717			
9	2017	3	52,901	49,342	3,559			
10	2017	4	46,213	44,612	1,601			
11	2017	5	50,519	51,070	-551			
12	2017	6	57,622	58,084	-462	682,051	677,160	4,891,099

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DERIVATION OF KWH ATTRIBUTABLE TO CUSTOMER GROWTH
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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS (TO NEAREST INTEGER)	WEATHER NORMALIZED MWH	AVERAGE KWH WEATHER NORMALIZED	CHANGE IN WEA. NORM. KWH	TOTAL CHANGE IN WEA. NORM. KWH
1	2016	7	15,718	15,720	44	62,354	3,967	174,528	
2	2016	8	15,722	15,740	24	71,910	4,569	109,647	
3	2016	9	15,726	15,742	22	69,367	4,406	96,943	
4	2016	10	15,730	15,723	41	60,927	3,875	158,876	
5	2016	11	15,734	15,745	19	47,437	3,013	57,244	
6	2016	12	15,738	15,728	36	54,124	3,441	123,885	
7	2017	1	15,741	15,723	41	55,712	3,543	145,277	
8	2017	2	15,745	15,714	50	52,966	3,371	168,531	
9	2017	3	15,749	15,738	26	52,901	3,361	87,395	
10	2017	4	15,753	15,757	7	46,213	2,933	20,530	
11	2017	5	15,758	15,766	-2	50,519	3,204	-6,409	
12	2017	6	15,764	15,778	-14	57,622	3,652	-51,129	1,085,318
			=====	=====	=====				
			188,874		294				

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUNCCOM6
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Obs	YEAR	MONTH	ACTUAL MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	13,703	33	415,242					
2	2015	8	12,578	33	381,152					
3	2015	9	12,735	33	385,909					
4	2015	10	12,100	33	366,667					
5	2015	11	9,579	33	290,273					
6	2015	12	11,054	33	334,970					
7	2016	1	10,092	33	305,818					
8	2016	2	10,152	33	307,636					
9	2016	3	9,981	33	302,455					
10	2016	4	10,378	33	314,485					
11	2016	5	9,711	33	294,273					
12	2016	6	11,494	33	348,303	133,557	4,047,182		33	
13	2016	7	12,168	33	368,727					
14	2016	8	13,261	33	401,848					
15	2016	9	13,346	33	404,424					
16	2016	10	11,950	33	362,121					
17	2016	11	9,367	33	283,848					
18	2016	12	10,423	33	315,848					
19	2017	1	9,936	33	301,091					
20	2017	2	9,367	33	283,848					
21	2017	3	9,934	33	301,030					
22	2017	4	9,459	34	278,206					
23	2017	5	11,029	34	324,382					
24	2017	6	11,682	34	343,588	131,922	3,968,964	-78,217	34	-1,329,697

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NORTH CAROLINA POWER
 DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
 12 MONTHS ENDED JUNE 30, 2017
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Obs	YEAR	MONTH	ACTUAL MWH	TOTAL ACTUAL KWH (1000 X MWH)
1	2016	7	12,168	
2	2016	8	13,261	
3	2016	9	13,346	
4	2016	10	11,950	
5	2016	11	9,367	
6	2016	12	10,423	
7	2017	1	9,936	
8	2017	2	9,367	
9	2017	3	9,934	
10	2017	4	9,459	
11	2017	5	11,029	
12	2017	6	11,682	131,922,000

NO WEATHER NORMALIZATION EFFECT

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NORTH CAROLINA POWER
MONTHLY KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUNCCOM6

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS	ACTUAL MWH	AVERAGE KWH	CHANGE IN KWH	TOTAL CHANGE IN KWH
1	2016	7	33	33	1	12,168	368,727	368,727	
2	2016	8	33	33	1	13,261	401,848	401,848	
3	2016	9	33	33	1	13,346	404,424	404,424	
4	2016	10	33	33	1	11,950	362,121	362,121	
5	2016	11	33	33	1	9,367	283,848	283,848	
6	2016	12	33	33	1	10,423	315,848	315,848	
7	2017	1	33	33	1	9,936	301,091	301,091	
8	2017	2	33	33	1	9,367	283,848	283,848	
9	2017	3	34	33	1	9,934	301,030	301,030	
10	2017	4	34	34	0	9,459	278,206	0	
11	2017	5	34	34	0	11,029	324,382	0	
12	2017	6	34	34	0	11,682	343,588	0	3,022,785
				=====	=====				
				399	9				

NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	1,330	23	57,838					
2	2015	8	1,132	23	49,201					
3	2015	9	1,246	23	54,169					
4	2015	10	1,283	22	58,306					
5	2015	11	1,175	22	53,430					
6	2015	12	1,259	22	57,245					
7	2016	1	1,288	22	58,544					
8	2016	2	1,225	22	55,678					
9	2016	3	1,195	22	54,332					
10	2016	4	1,181	22	53,697					
11	2016	5	1,363	22	61,972					
12	2016	6	1,133	22	51,506	14,811	665,919		22	
13	2016	7	1,123	22	51,055					
14	2016	8	1,331	23	57,850					
15	2016	9	1,341	23	58,304					
16	2016	10	1,358	23	59,035					
17	2016	11	1,050	23	45,664					
18	2016	12	1,116	23	48,521					
19	2017	1	1,239	23	53,872					
20	2017	2	1,292	23	56,160					
21	2017	3	1,258	23	54,706					
22	2017	4	1,495	23	64,979					
23	2017	5	1,355	23	58,899					
24	2017	6	1,204	23	52,342	15,161	661,387	-4,533	23	-52,125

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DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	ACTUAL MWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED MWH	TOTAL ACTUAL MWH	TOTAL WEATHER EFFECT KWH (1000 X MWH)
1	2016	7	1,123	1,099	24			
2	2016	8	1,331	1,031	300			
3	2016	9	1,341	1,009	332			
4	2016	10	1,358	1,069	289			
5	2016	11	1,050	939	111			
6	2016	12	1,116	1,098	18			
7	2017	1	1,239	1,210	29			
8	2017	2	1,292	1,160	132			
9	2017	3	1,258	1,169	89			
10	2017	4	1,495	1,383	112			
11	2017	5	1,355	1,138	217			
12	2017	6	1,204	1,137	67	15,161	13,442	1,718,838

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NORTH CAROLINA POWER
 DERIVATION OF KWH ATTRIBUTABLE TO CUSTOMER GROWTH
 12 MONTHS ENDED JUNE 30, 2017
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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS (TO NEAREST INTEGER)	WEATHER NORMALIZED MWH	AVERAGE KWH WEATHER NORMALIZED	CHANGE IN WEA. NORM. KWH	TOTAL CHANGE IN WEA. NORM. KWH
1	2016	7	22	22	1	1,123	51,045	51,045	
2	2016	8	22	23	0	1,331	57,870	0	
3	2016	9	23	23	0	1,341	58,304	0	
4	2016	10	23	23	0	1,358	59,043	0	
5	2016	11	23	23	0	1,050	45,652	0	
6	2016	12	23	23	0	1,116	48,522	0	
7	2017	1	23	23	0	1,239	53,870	0	
8	2017	2	23	23	0	1,292	56,174	0	
9	2017	3	23	23	0	1,258	54,696	0	
10	2017	4	23	23	0	1,495	65,000	0	
11	2017	5	23	23	0	1,355	58,913	0	
12	2017	6	23	23	0	1,204	52,348	0	51,045
			=====	=====	=====				
				275	1				

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
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Obs	YEAR	MONTH	ACTUAL MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	55,227	25	2,209,080					
2	2015	8	54,764	25	2,190,560					
3	2015	9	56,529	25	2,261,160					
4	2015	10	55,635	25	2,225,400					
5	2015	11	46,111	25	1,844,440					
6	2015	12	52,304	25	2,092,160					
7	2016	1	40,991	24	1,707,958					
8	2016	2	42,234	24	1,759,750					
9	2016	3	74,985	25	2,999,400					
10	2016	4	53,113	25	2,124,520					
11	2016	5	51,027	25	2,041,080					
12	2016	6	53,804	25	2,152,160	636,724	25,607,668		25	
13	2016	7	53,886	25	2,155,440					
14	2016	8	65,304	25	2,612,160					
15	2016	9	55,976	25	2,239,040					
16	2016	10	49,813	25	1,992,520					
17	2016	11	36,371	25	1,454,840					
18	2016	12	49,637	25	1,985,480					
19	2017	1	44,216	25	1,768,640					
20	2017	2	45,817	25	1,832,680					
21	2017	3	47,988	25	1,919,520					
22	2017	4	46,574	25	1,862,960					
23	2017	5	49,382	25	1,975,280					
24	2017	6	46,828	25	1,873,120	591,792	23,671,680	-1,935,988	25	-24,199,854

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12 MONTHS ENDED JUNE 30, 2017
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Obs	YEAR	MONTH	ACTUAL MWH	TOTAL ACTUAL KWH (1000 X MWH)
1	2016	7	53,886	
2	2016	8	65,304	
3	2016	9	55,976	
4	2016	10	49,813	
5	2016	11	36,371	
6	2016	12	49,637	
7	2017	1	44,216	
8	2017	2	45,817	
9	2017	3	47,988	
10	2017	4	46,574	
11	2017	5	49,382	
12	2017	6	46,828	591,792,000

NO WEATHER NORMALIZATION EFFECT

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MONTHLY KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS	ACTUAL MWH	AVERAGE KWH	CHANGE IN KWH	TOTAL CHANGE IN KWH
1	2016	7	25	25	0	53,886	2,155,440	0	
2	2016	8	25	25	0	65,304	2,612,160	0	
3	2016	9	25	25	0	55,976	2,239,040	0	
4	2016	10	25	25	0	49,813	1,992,520	0	
5	2016	11	25	25	0	36,371	1,454,840	0	
6	2016	12	25	25	0	49,637	1,985,480	0	
7	2017	1	25	25	0	44,216	1,768,640	0	
8	2017	2	25	25	0	45,817	1,832,680	0	
9	2017	3	25	25	0	47,988	1,919,520	0	
10	2017	4	25	25	0	46,574	1,862,960	0	
11	2017	5	25	25	0	49,382	1,975,280	0	
12	2017	6	25	25	0	46,828	1,873,120	0	
				=====	=====				
				300	0				0

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUNC6VP
INDUSTRIAL 6VP
NORTH CAROLINA JURISDICTIONAL

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Obs	YEAR	MONTH	ACTUAL MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	21,983	3	7,327,697					
2	2015	8	23,134	3	7,711,413					
3	2015	9	25,920	3	8,640,078					
4	2015	10	23,175	3	7,724,938					
5	2015	11	21,181	3	7,060,194					
6	2015	12	21,796	3	7,265,353					
7	2016	1	18,234	3	6,077,849					
8	2016	2	19,035	3	6,344,927					
9	2016	3	20,633	3	6,877,591					
10	2016	4	21,678	3	7,225,963					
11	2016	5	18,473	3	6,157,535					
12	2016	6	23,271	3	7,756,990	258,512	86,170,528		3	
13	2016	7	22,108	3	7,369,304					
14	2016	8	23,387	3	7,795,605					
15	2016	9	26,285	3	8,761,551					
16	2016	10	21,910	3	7,303,193					
17	2016	11	21,593	3	7,197,565					
18	2016	12	22,722	3	7,574,107					
19	2017	1	20,356	3	6,785,456					
20	2017	2	18,796	3	6,265,233					
21	2017	3	18,957	3	6,318,945					
22	2017	4	17,696	3	5,898,775					
23	2017	5	23,839	3	7,946,188					
24	2017	6	23,589	3	7,863,012	261,237	87,078,934	908,406	3	1,362,609

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NORTH CAROLINA POWER
 DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
 12 MONTHS ENDED JUNE 30, 2017
 CUNC6VP
 INDUSTRIAL 6VP
 NORTH CAROLINA JURISDICTIONAL

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Obs	YEAR	MONTH	ACTUAL MWH	TOTAL ACTUAL KWH (1000 X MWH)
1	2016	7	22,108	
2	2016	8	23,387	
3	2016	9	26,285	
4	2016	10	21,910	
5	2016	11	21,593	
6	2016	12	22,722	
7	2017	1	20,356	
8	2017	2	18,796	
9	2017	3	18,957	
10	2017	4	17,696	
11	2017	5	23,839	
12	2017	6	23,589	261,236,802

NO WEATHER NORMALIZATION EFFECT

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NORTH CAROLINA POWER
MONTHLY KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUNC6VP

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS	ACTUAL MWH	AVERAGE KWH	CHANGE IN KWH	TOTAL CHANGE IN KWH
1	2016	7	3	3	0	22,108	7,369,304	0	
2	2016	8	3	3	0	23,387	7,795,605	0	
3	2016	9	3	3	0	26,285	8,761,551	0	
4	2016	10	3	3	0	21,910	7,303,193	0	
5	2016	11	3	3	0	21,593	7,197,565	0	
6	2016	12	3	3	0	22,722	7,574,107	0	
7	2017	1	3	3	0	20,356	6,785,456	0	
8	2017	2	3	3	0	18,796	6,265,233	0	
9	2017	3	3	3	0	18,957	6,318,945	0	
10	2017	4	3	3	0	17,696	5,898,775	0	
11	2017	5	3	3	0	23,839	7,946,188	0	
12	2017	6	3	3	0	23,589	7,863,012	0	
				=====	=====				
				36	0				0

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUNCNUG
INDUSTRIAL NUCOR
NORTH CAROLINA JURISDICTIONAL

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Obs	YEAR	MONTH	ACTUAL MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	71,147	1	71,147,201					
2	2015	8	72,404	1	72,404,304					
3	2015	9	72,181	1	72,181,075					
4	2015	10	61,320	1	61,320,242					
5	2015	11	59,730	1	59,729,809					
6	2015	12	67,721	1	67,720,859					
7	2016	1	72,142	1	72,141,950					
8	2016	2	72,714	1	72,714,311					
9	2016	3	67,773	1	67,773,209					
10	2016	4	69,102	1	69,101,987					
11	2016	5	76,415	1	76,414,758					
12	2016	6	84,319	1	84,319,059	846,969	846,968,764		1	
13	2016	7	65,673	1	65,673,073					
14	2016	8	59,354	1	59,353,900					
15	2016	9	59,090	1	59,090,129					
16	2016	10	64,142	1	64,141,751					
17	2016	11	63,139	1	63,139,444					
18	2016	12	72,311	1	72,310,739					
19	2017	1	69,948	1	69,947,746					
20	2017	2	75,093	1	75,093,211					
21	2017	3	73,597	1	73,596,521					
22	2017	4	78,429	1	78,429,307					
23	2017	5	78,439	1	78,438,800					
24	2017	6	84,583	1	84,582,872	843,797	843,797,493	-3,171,271	1	-1,585,636

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NORTH CAROLINA POWER
DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
12 MONTHS ENDED JUNE 30, 2017
CUNCNUC
INDUSTRIAL NUCOR
NORTH CAROLINA JURISDICTIONAL

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Obs	YEAR	MONTH	ACTUAL MWH	TOTAL ACTUAL KWH (1000 X MWH)
1	2016	7	65,673	
2	2016	8	59,354	
3	2016	9	59,090	
4	2016	10	64,142	
5	2016	11	63,139	
6	2016	12	72,311	
7	2017	1	69,948	
8	2017	2	75,093	
9	2017	3	73,597	
10	2017	4	78,429	
11	2017	5	78,439	
12	2017	6	84,583	843,797,493

NO WEATHER NORMALIZATION EFFECT

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NORTH CAROLINA POWER
MONTHLY KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUNCNUC

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS	ACTUAL MWH	AVERAGE KWH	CHANGE IN KWH	TOTAL CHANGE IN KWH
1	2016	7	1	1	0	65,673	65,673,073	0	
2	2016	8	1	1	0	59,354	59,353,900	0	
3	2016	9	1	1	0	59,090	59,090,129	0	
4	2016	10	1	1	0	64,142	64,141,751	0	
5	2016	11	1	1	0	63,139	63,139,444	0	
6	2016	12	1	1	0	72,311	72,310,739	0	
7	2017	1	1	1	0	69,948	69,947,746	0	
8	2017	2	1	1	0	75,093	75,093,211	0	
9	2017	3	1	1	0	73,597	73,596,521	0	
10	2017	4	1	1	0	78,429	78,429,307	0	
11	2017	5	1	1	0	78,439	78,438,800	0	
12	2017	6	1	1	0	84,583	84,582,872	0	
				=====	=====				
				12	0				0

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUNCTR
TRAFFIC LIGHTS
NORTH CAROLINA JURISDICTIONAL

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Obs	YEAR	MONTH	ACTUAL MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	49	198	247					
2	2015	8	48	198	242					
3	2015	9	48	198	242					
4	2015	10	45	198	227					
5	2015	11	39	197	198					
6	2015	12	42	197	213					
7	2016	1	43	197	218					
8	2016	2	44	197	223					
9	2016	3	48	197	244					
10	2016	4	39	197	198					
11	2016	5	40	197	203					
12	2016	6	38	197	193	523	2,650		197	
13	2016	7	46	197	234					
14	2016	8	48	197	244					
15	2016	9	43	197	218					
16	2016	10	45	197	228					
17	2016	11	40	197	203					
18	2016	12	39	197	198					
19	2017	1	48	197	244					
20	2017	2	44	197	223					
21	2017	3	42	197	213					
22	2017	4	39	197	198					
23	2017	5	41	197	208					
24	2017	6	38	197	193	513	2,604	-46	197	-4,520

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NORTH CAROLINA POWER
 DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
 12 MONTHS ENDED JUNE 30, 2017
 CUNCTRF
 TRAFFIC LIGHTS
 NORTH CAROLINA JURISDICTIONAL

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Obs	YEAR	MONTH	ACTUAL MWH	TOTAL ACTUAL KWH (1000 X MWH)
1	2016	7	46	
2	2016	8	48	
3	2016	9	43	
4	2016	10	45	
5	2016	11	40	
6	2016	12	39	
7	2017	1	48	
8	2017	2	44	
9	2017	3	42	
10	2017	4	39	
11	2017	5	41	
12	2017	6	38	513,000

NO WEATHER NORMALIZATION EFFECT

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NORTH CAROLINA POWER
MONTHLY KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUNCTRF

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS	ACTUAL MWH	AVERAGE KWH	CHANGE IN KWH	TOTAL CHANGE IN KWH
1	2016	7	197	197	0	46	234	0	
2	2016	8	197	197	0	48	244	0	
3	2016	9	197	197	0	43	218	0	
4	2016	10	197	197	0	45	228	0	
5	2016	11	197	197	0	40	203	0	
6	2016	12	197	197	0	39	198	0	
7	2017	1	197	197	0	48	244	0	
8	2017	2	197	197	0	44	223	0	
9	2017	3	197	197	0	42	213	0	
10	2017	4	197	197	0	39	198	0	
11	2017	5	197	197	0	41	208	0	
12	2017	6	197	197	0	38	193	0	0
			=====		=====				
					2,364	0			

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NORTH CAROLINA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUNCST
STREET LIGHTS
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Obs	YEAR	MONTH	ACTUAL MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	670	239	2,803					
2	2015	8	668	239	2,795					
3	2015	9	668	237	2,819					
4	2015	10	668	237	2,819					
5	2015	11	667	237	2,814					
6	2015	12	667	237	2,814					
7	2016	1	691	237	2,916					
8	2016	2	690	237	2,911					
9	2016	3	690	237	2,911					
10	2016	4	668	237	2,819					
11	2016	5	668	237	2,819					
12	2016	6	669	237	2,823	8,084	34,062		237	
13	2016	7	667	237	2,814					
14	2016	8	673	238	2,828					
15	2016	9	669	238	2,811					
16	2016	10	589	238	2,475					
17	2016	11	663	239	2,774					
18	2016	12	669	240	2,788					
19	2017	1	669	240	2,788					
20	2017	2	140	240	583					
21	2017	3	1,265	240	5,271					
22	2017	4	137	241	568					
23	2017	5	1,189	241	4,934					
24	2017	6	685	241	2,842	8,015	33,475	-587	242	-71,032

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NORTH CAROLINA POWER
 DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
 12 MONTHS ENDED JUNE 30, 2017
 CUNCST
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Obs	YEAR	MONTH	ACTUAL MWH	TOTAL ACTUAL KWH (1000 X MWH)
1	2016	7	667	
2	2016	8	673	
3	2016	9	669	
4	2016	10	589	
5	2016	11	663	
6	2016	12	669	
7	2017	1	669	
8	2017	2	140	
9	2017	3	1,265	
10	2017	4	137	
11	2017	5	1,189	
12	2017	6	685	8,015,000

NO WEATHER NORMALIZATION EFFECT

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NORTH CAROLINA POWER
MONTHLY KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUNCST

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS	ACTUAL MWH	AVERAGE KWH	CHANGE IN KWH	TOTAL CHANGE IN KWH
1	2016	7	238	237	5	667	2,814	14,072	
2	2016	8	238	238	4	673	2,828	11,311	
3	2016	9	238	238	4	669	2,811	11,244	
4	2016	10	238	238	4	589	2,475	9,899	
5	2016	11	239	239	3	663	2,774	8,322	
6	2016	12	239	240	2	669	2,788	5,575	
7	2017	1	239	240	2	669	2,788	5,575	
8	2017	2	240	240	2	140	583	1,167	
9	2017	3	240	240	2	1,265	5,271	10,542	
10	2017	4	241	241	1	137	568	568	
11	2017	5	241	241	1	1,189	4,934	4,934	
12	2017	6	242	241	1	685	2,842	2,842	86,051
			=====	=====					
				2,873	31				

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VIRGINIA POWER
SUMMARY OF KWH ATTRIBUTABLE TO
CHANGE IN USAGE, WEATHER NORMALIZATION AND CUSTOMER GROWTH
12 MONTHS ENDED JUNE 30, 2017
VIRGINIA JURISDICTIONAL

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Obs	TYPE	KWH ATTRIBUTED TO INCREASED USAGE	TOTAL WEATHER EFFECT KWH	KWH ATTRIBUTED TO CUSTOMER GROWTH	TOTAL KWH
1	VA RESIDENTIAL	-72,438,702	332,228,286	130,257,095	390,046,679
2	VA SCHEDULE 7	26,465	496,724	-124,515	398,674
3	VA OUTDOOR LIGHTING	-421,567	0	39,831	-381,736
4	VA CHURCHES	-226,389	-4,145,306	-432,880	-4,804,575
5	VA COMMERCIAL	609,172,704	-166,963,691	90,784,748	532,993,761
6	VA INDUSTRIAL	127,881,366	0	-74,633,856	53,247,510
7	VA INDUSTRIAL 56-235.2	-3,402,168	0	0	-3,402,168
		=====	=====	=====	=====
		660,591,710	161,616,013	145,890,423	968,098,146

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VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	2,772,421	2,150,630	1,289					
2	2015	8	2,704,952	2,152,368	1,257					
3	2015	9	2,403,885	2,154,103	1,116					
4	2015	10	1,796,523	2,155,654	833					
5	2015	11	1,636,385	2,157,950	758					
6	2015	12	2,710,186	2,162,091	1,254					
7	2016	1	2,905,196	2,165,008	1,342					
8	2016	2	3,053,250	2,165,873	1,410					
9	2016	3	2,756,548	2,166,793	1,272					
10	2016	4	2,012,477	2,167,718	928					
11	2016	5	1,648,958	2,169,495	760					
12	2016	6	2,196,167	2,171,327	1,011	28,596,948	13,231		2,172,012	
13	2016	7	2,613,350	2,173,700	1,202					
14	2016	8	3,004,337	2,176,767	1,380					
15	2016	9	2,495,514	2,177,749	1,146					
16	2016	10	1,839,130	2,178,821	844					
17	2016	11	1,641,134	2,181,783	752					
18	2016	12	2,476,201	2,185,180	1,133					
19	2017	1	3,124,100	2,186,565	1,429					
20	2017	2	2,942,592	2,187,240	1,345					
21	2017	3	2,747,004	2,189,841	1,254					
22	2017	4	1,864,852	2,191,103	851					
23	2017	5	1,802,273	2,192,547	822					
24	2017	6	2,206,206	2,194,842	1,005	28,756,693	13,165	-66	2,194,281	-72,438,702

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VIRGINIA POWER
DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
12 MONTHS ENDED JUNE 30, 2017
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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	ACTUAL MWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED MWH	TOTAL ACTUAL MWH	TOTAL WEATHER EFFECT KWH (1000 X MWH)
1	2016	7	2,613,350	2,570,617	42,733			
2	2016	8	3,004,337	3,322,629	-318,292			
3	2016	9	2,495,514	2,885,784	-390,270			
4	2016	10	1,839,130	1,957,777	-118,647			
5	2016	11	1,641,134	1,573,601	67,533			
6	2016	12	2,476,201	2,448,618	27,583			
7	2017	1	3,124,100	3,017,805	106,295			
8	2017	2	2,942,592	2,416,501	526,091			
9	2017	3	2,747,004	2,392,466	354,538			
10	2017	4	1,864,852	1,746,955	117,897			
11	2017	5	1,802,273	1,862,753	-60,480			
12	2017	6	2,206,206	2,228,959	-22,753	28,756,693	28,424,465	332,228,286

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VIRGINIA POWER
MONTHLY WEATHER NORMALIZED KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUVARES

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS (TO NEAREST INTEGER)	WEATHER NORMALIZED MWH	AVERAGE KWH WEATHER NORMALIZED	CHANGE IN WEA. NORM. KWH	TOTAL CHANGE IN WEA. NORM. KWH
1	2016	7	2,174,038	2,173,700	20,581	2,613,350	1,202	24,743,692	
2	2016	8	2,176,075	2,176,767	17,514	3,004,337	1,380	24,172,525	
3	2016	9	2,178,115	2,177,749	16,532	2,495,514	1,146	18,944,250	
4	2016	10	2,180,146	2,178,821	15,460	1,839,130	844	13,049,693	
5	2016	11	2,182,156	2,181,783	12,498	1,641,134	752	9,400,983	
6	2016	12	2,184,131	2,185,180	9,101	2,476,201	1,133	10,313,062	
7	2017	1	2,186,056	2,186,565	7,716	3,124,100	1,429	11,024,397	
8	2017	2	2,187,913	2,187,240	7,041	2,942,592	1,345	9,472,574	
9	2017	3	2,189,685	2,189,841	4,440	2,747,004	1,254	5,569,674	
10	2017	4	2,191,352	2,191,103	3,178	1,864,852	851	2,704,802	
11	2017	5	2,192,891	2,192,547	1,734	1,802,273	822	1,425,348	
12	2017	6	2,194,281	2,194,842	-561	2,206,206	1,005	-563,905	130,257,095
			=====	=====	=====				
			26216138		115,234				

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VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUVAOTH
SCHEDULE 7
VIRGINIA JURISDICTIONAL

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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	788	457	1,725					
2	2015	8	827	457	1,811					
3	2015	9	694	455	1,525					
4	2015	10	504	454	1,110					
5	2015	11	531	454	1,169					
6	2015	12	943	452	2,086					
7	2016	1	1,118	451	2,479					
8	2016	2	1,278	451	2,834					
9	2016	3	1,130	450	2,511					
10	2016	4	641	445	1,440					
11	2016	5	411	444	925					
12	2016	6	549	443	1,240	9,415	20,856		443	
13	2016	7	747	440	1,698					
14	2016	8	839	440	1,907					
15	2016	9	738	438	1,684					
16	2016	10	529	435	1,216					
17	2016	11	502	434	1,156					
18	2016	12	811	434	1,868					
19	2017	1	1,163	434	2,679					
20	2017	2	1,174	433	2,711					
21	2017	3	971	432	2,247					
22	2017	4	629	429	1,467					
23	2017	5	472	427	1,105					
24	2017	6	530	427	1,242	9,104	20,980	124	428	26,465

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VIRGINIA POWER
DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
12 MONTHS ENDED JUNE 30, 2017
CUVAOTH
SCHEDULE 7
VIRGINIA JURISDICTIONAL

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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	ACTUAL MWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED MWH	TOTAL ACTUAL MWH	TOTAL WEATHER EFFECT KWH (1000 X MWH)
1	2016	7	747	733	14			
2	2016	8	839	940	-101			
3	2016	9	738	859	-121			
4	2016	10	529	539	-10			
5	2016	11	502	445	57			
6	2016	12	811	795	16			
7	2017	1	1,163	1,104	59			
8	2017	2	1,174	881	293			
9	2017	3	971	772	199			
10	2017	4	629	546	83			
11	2017	5	472	459	13			
12	2017	6	530	534	-4	9,104	8,607	496,724

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VIRGINIA POWER
MONTHLY WEATHER NORMALIZED KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUVAOTH

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS (TO NEAREST INTEGER)	WEATHER NORMALIZED MWH	AVERAGE KWH WEATHER NORMALIZED	CHANGE IN WEA. NORM. KWH	TOTAL CHANGE IN WEA. NORM. KWH
1	2016	7	441	440	-12	747	1,698	-20,373	
2	2016	8	440	440	-12	839	1,907	-22,882	
3	2016	9	438	438	-10	738	1,685	-16,849	
4	2016	10	437	435	-7	529	1,216	-8,513	
5	2016	11	435	434	-6	502	1,157	-6,940	
6	2016	12	434	434	-6	811	1,869	-11,212	
7	2017	1	433	434	-6	1,163	2,680	-16,078	
8	2017	2	431	433	-5	1,174	2,711	-13,557	
9	2017	3	430	432	-4	971	2,248	-8,991	
10	2017	4	429	429	-1	629	1,466	-1,466	
11	2017	5	428	427	1	472	1,105	1,105	
12	2017	6	428	427	1	530	1,241	1,241	-124,515
			=====	=====	=====				
				5,203	-67				

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VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUVALTS
OUTDOOR LIGHTING
VIRGINIA JURISDICTIONAL

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Obs	YEAR	MONTH	ACTUAL MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	8,261	55,937	148					
2	2015	8	7,874	55,951	141					
3	2015	9	7,944	55,925	142					
4	2015	10	8,211	55,900	147					
5	2015	11	6,832	55,894	122					
6	2015	12	8,521	55,962	152					
7	2016	1	7,578	56,018	135					
8	2016	2	8,054	56,055	144					
9	2016	3	8,444	56,011	151					
10	2016	4	7,964	56,042	142					
11	2016	5	7,862	56,049	140					
12	2016	6	8,774	56,046	157	96,319	1,720		56,031	
13	2016	7	7,548	56,025	135					
14	2016	8	8,511	56,058	152					
15	2016	9	7,963	56,033	142					
16	2016	10	7,992	56,040	143					
17	2016	11	7,351	56,077	131					
18	2016	12	8,134	56,062	145					
19	2017	1	8,073	56,122	144					
20	2017	2	7,529	56,125	134					
21	2017	3	8,826	56,132	157					
22	2017	4	7,077	56,166	126					
23	2017	5	8,386	56,091	150					
24	2017	6	8,260	56,089	147	95,650	1,705	-15	56,108	-421,567

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VIRGINIA POWER
 DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
 12 MONTHS ENDED JUNE 30, 2017
 CUVALTS
 OUTDOOR LIGHTING
 VIRGINIA JURISDICTIONAL

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Obs	YEAR	MONTH	ACTUAL MWH	TOTAL ACTUAL KWH (1000 X MWH)
1	2016	7	7,548	
2	2016	8	8,511	
3	2016	9	7,963	
4	2016	10	7,992	
5	2016	11	7,351	
6	2016	12	8,134	
7	2017	1	8,073	
8	2017	2	7,529	
9	2017	3	8,826	
10	2017	4	7,077	
11	2017	5	8,386	
12	2017	6	8,260	95,650,000

NO WEATHER NORMALIZATION EFFECT

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VIRGINIA POWER
MONTHLY KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUVALTS

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS	ACTUAL MWH	AVERAGE KWH	CHANGE IN KWH	TOTAL CHANGE IN KWH
1	2016	7	56,042	56,025	83	7,548	135	11,182	
2	2016	8	56,053	56,058	50	8,511	152	7,591	
3	2016	9	56,065	56,033	75	7,963	142	10,658	
4	2016	10	56,076	56,040	68	7,992	143	9,698	
5	2016	11	56,087	56,077	31	7,351	131	4,064	
6	2016	12	56,096	56,062	46	8,134	145	6,674	
7	2017	1	56,104	56,122	-14	8,073	144	-2,014	
8	2017	2	56,111	56,125	-17	7,529	134	-2,280	
9	2017	3	56,115	56,132	-24	8,826	157	-3,774	
10	2017	4	56,116	56,166	-58	7,077	126	-7,308	
11	2017	5	56,114	56,091	17	8,386	150	2,542	
12	2017	6	56,108	56,089	19	8,260	147	2,798	39,831
				=====	=====				
				673,020	276				

VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUVACH
CHURCHES
VIRGINIA JURISDICTIONAL

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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	24,579	3,046	8,069					
2	2015	8	24,095	3,045	7,913					
3	2015	9	21,225	3,045	6,971					
4	2015	10	16,776	3,043	5,513					
5	2015	11	13,507	3,042	4,440					
6	2015	12	19,890	3,043	6,536					
7	2016	1	19,728	3,041	6,487					
8	2016	2	21,154	3,046	6,945					
9	2016	3	20,663	3,044	6,788					
10	2016	4	15,802	3,045	5,190					
11	2016	5	14,389	3,047	4,722					
12	2016	6	18,954	3,048	6,218	230,762	75,793		3,046	
13	2016	7	23,060	3,049	7,563					
14	2016	8	27,176	3,047	8,919					
15	2016	9	22,073	3,045	7,249					
16	2016	10	16,376	3,046	5,376					
17	2016	11	13,185	3,049	4,324					
18	2016	12	18,174	3,049	5,961					
19	2017	1	21,318	3,043	7,006					
20	2017	2	20,432	3,042	6,717					
21	2017	3	20,343	3,043	6,685					
22	2017	4	14,232	3,040	4,681					
23	2017	5	14,912	3,041	4,904					
24	2017	6	19,034	3,041	6,259	230,315	75,644	-149	3,039	-226,389

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VIRGINIA POWER
DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
12 MONTHS ENDED JUNE 30, 2017
CUVACH
CHURCHES
VIRGINIA JURISDICTIONAL

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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	ACTUAL MWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED MWH	TOTAL ACTUAL MWH	TOTAL WEATHER EFFECT KWH (1000 X MWH)
1	2016	7	23,060	22,628	432			
2	2016	8	27,176	30,468	-3,292			
3	2016	9	22,073	26,146	-4,073			
4	2016	10	16,376	18,123	-1,747			
5	2016	11	13,185	13,164	21			
6	2016	12	18,174	18,024	150			
7	2017	1	21,318	20,701	617			
8	2017	2	20,432	17,444	2,988			
9	2017	3	20,343	18,366	1,977			
10	2017	4	14,232	13,915	317			
11	2017	5	14,912	16,150	-1,238			
12	2017	6	19,034	19,331	-297	230,315	234,460	-4,145,306

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VIRGINIA POWER
MONTHLY WEATHER NORMALIZED KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUVACH

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS (TO NEAREST INTEGER)	WEATHER NORMALIZED MWH	AVERAGE KWH WEATHER NORMALIZED	CHANGE IN WEA. NORM. KWH	TOTAL CHANGE IN WEA. NORM. KWH
1	2016	7	3,047	3,049	-10	23,060	7,563	-75,631	
2	2016	8	3,047	3,047	-8	27,176	8,919	-71,351	
3	2016	9	3,046	3,045	-6	22,073	7,249	-43,494	
4	2016	10	3,046	3,046	-7	16,376	5,376	-37,634	
5	2016	11	3,046	3,049	-10	13,185	4,324	-43,244	
6	2016	12	3,046	3,049	-10	18,174	5,961	-59,606	
7	2017	1	3,045	3,043	-4	21,318	7,006	-28,022	
8	2017	2	3,044	3,042	-3	20,432	6,717	-20,150	
9	2017	3	3,043	3,043	-4	20,343	6,685	-26,741	
10	2017	4	3,042	3,040	-1	14,232	4,682	-4,682	
11	2017	5	3,041	3,041	-2	14,912	4,904	-9,807	
12	2017	6	3,039	3,041	-2	19,034	6,259	-12,518	-432,880
			=====	=====	=====				
				36,535	-67				

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VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUVACOM
COMMERCIAL
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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	2,753,296	219,862	12,523					
2	2015	8	2,634,219	220,014	11,973					
3	2015	9	2,565,287	220,199	11,650					
4	2015	10	2,375,897	220,209	10,789					
5	2015	11	1,953,316	220,298	8,867					
6	2015	12	2,542,639	220,450	11,534					
7	2016	1	2,393,596	220,534	10,854					
8	2016	2	2,451,767	220,396	11,124					
9	2016	3	2,466,084	220,449	11,187					
10	2016	4	2,224,787	220,599	10,085					
11	2016	5	2,184,602	220,694	9,899					
12	2016	6	2,567,391	220,821	11,627	29,112,879	132,111		220,852	
13	2016	7	2,622,840	220,956	11,870					
14	2016	8	2,964,827	221,123	13,408					
15	2016	9	2,699,523	221,126	12,208					
16	2016	10	2,416,324	221,031	10,932					
17	2016	11	2,139,126	221,157	9,672					
18	2016	12	2,548,263	221,385	11,511					
19	2017	1	2,561,631	221,492	11,565					
20	2017	2	2,577,373	221,584	11,632					
21	2017	3	2,705,786	221,711	12,204					
22	2017	4	2,072,965	221,736	9,349					
23	2017	5	2,424,938	221,862	10,930					
24	2017	6	2,734,694	222,060	12,315	30,468,290	137,596	5,486	222,092	609,172,704

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VIRGINIA POWER
DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
12 MONTHS ENDED JUNE 30, 2017
CUVACOM
COMMERCIAL
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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	ACTUAL MWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED MWH	TOTAL ACTUAL MWH	TOTAL WEATHER EFFECT KWH (1000 X MWH)
1	2016	7	2,622,840	2,607,778	15,062			
2	2016	8	2,964,827	3,079,710	-114,883			
3	2016	9	2,699,523	2,841,698	-142,175			
4	2016	10	2,416,324	2,478,618	-62,294			
5	2016	11	2,139,126	2,140,339	-1,213			
6	2016	12	2,548,263	2,543,450	4,813			
7	2017	1	2,561,631	2,541,571	20,060			
8	2017	2	2,577,373	2,480,665	96,708			
9	2017	3	2,705,786	2,642,086	63,700			
10	2017	4	2,072,965	2,064,595	8,370			
11	2017	5	2,424,938	2,469,596	-44,658			
12	2017	6	2,734,694	2,745,148	-10,454	30,468,290	30,635,254	-166,963,691

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VIRGINIA POWER
MONTHLY WEATHER NORMALIZED KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUVACOM

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS (TO NEAREST INTEGER)	WEATHER NORMALIZED MWH	AVERAGE KWH WEATHER NORMALIZED	CHANGE IN WEA. NORM. KWH	TOTAL CHANGE IN WEA. NORM. KWH
1	2016	7	220,923	220,956	1,136	2,622,840	11,870	13,484,795	
2	2016	8	220,995	221,123	969	2,964,827	13,408	12,992,395	
3	2016	9	221,068	221,126	966	2,699,523	12,208	11,793,001	
4	2016	10	221,145	221,031	1,061	2,416,324	10,932	11,598,915	
5	2016	11	221,226	221,157	935	2,139,126	9,672	9,043,724	
6	2016	12	221,314	221,385	707	2,548,263	11,511	8,137,958	
7	2017	1	221,411	221,492	600	2,561,631	11,565	6,939,206	
8	2017	2	221,517	221,584	508	2,577,373	11,632	5,908,845	
9	2017	3	221,636	221,711	381	2,705,786	12,204	4,649,767	
10	2017	4	221,770	221,736	356	2,072,965	9,349	3,328,172	
11	2017	5	221,921	221,862	230	2,424,938	10,930	2,513,886	
12	2017	6	222,092	222,060	32	2,734,694	12,315	394,084	90,784,748
			=====	=====	=====				
			2,657,223		7,881				

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VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUVAIND
INDUSTRIAL
VIRGINIA JURISDICTIONAL

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Obs	YEAR	MONTH	ACTUAL MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	557,326	573	972,646					
2	2015	8	521,497	570	914,907					
3	2015	9	519,153	568	914,002					
4	2015	10	503,382	566	889,367					
5	2015	11	415,393	566	733,910					
6	2015	12	533,978	567	941,760					
7	2016	1	462,765	566	817,606					
8	2016	2	472,569	567	833,455					
9	2016	3	528,120	569	928,155					
10	2016	4	476,619	569	837,643					
11	2016	5	455,964	569	801,343					
12	2016	6	525,025	565	929,248	5,971,791	10,514,041		580	
13	2016	7	567,761	601	944,694					
14	2016	8	666,881	600	1,111,468					
15	2016	9	598,412	598	1,000,689					
16	2016	10	524,448	597	878,472					
17	2016	11	488,795	595	821,504					
18	2016	12	499,964	594	841,690					
19	2017	1	519,303	593	875,722					
20	2017	2	476,749	593	803,961					
21	2017	3	551,129	594	927,827					
22	2017	4	494,342	595	830,827					
23	2017	5	554,709	594	933,854					
24	2017	6	580,674	594	977,566	6,523,167	10,948,274	434,232	589	127,881,366

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VIRGINIA POWER
 DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
 12 MONTHS ENDED JUNE 30, 2017
 CUVAIND
 INDUSTRIAL
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Obs	YEAR	MONTH	ACTUAL MWH	TOTAL ACTUAL KWH (1000 X MWH)
1	2016	7	567,761	
2	2016	8	666,881	
3	2016	9	598,412	
4	2016	10	524,448	
5	2016	11	488,795	
6	2016	12	499,964	
7	2017	1	519,303	
8	2017	2	476,749	
9	2017	3	551,129	
10	2017	4	494,342	
11	2017	5	554,709	
12	2017	6	580,674	6,523,167,000

NO WEATHER NORMALIZATION EFFECT

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VIRGINIA POWER
MONTHLY KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUVAIND

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS	ACTUAL MWH	AVERAGE KWH	CHANGE IN KWH	TOTAL CHANGE IN KWH
1	2016	7	583	601	-12	567,761	944,694	-11,336,326	
2	2016	8	586	600	-11	666,881	1,111,468	-12,226,152	
3	2016	9	589	598	-9	598,412	1,000,689	-9,006,201	
4	2016	10	592	597	-8	524,448	878,472	-7,027,779	
5	2016	11	594	595	-6	488,795	821,504	-4,929,025	
6	2016	12	596	594	-5	499,964	841,690	-4,208,451	
7	2017	1	598	593	-4	519,303	875,722	-3,502,887	
8	2017	2	598	593	-4	476,749	803,961	-3,215,845	
9	2017	3	598	594	-5	551,129	927,827	-4,639,133	
10	2017	4	597	595	-6	494,342	830,827	-4,984,961	
11	2017	5	594	594	-5	554,709	933,854	-4,669,268	
12	2017	6	589	594	-5	580,674	977,566	-4,887,828	-74,633,856
				=====	=====				
				7,148	-80				

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VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUVACHP
INDUSTRIAL 56-235.2
VIRGINIA JURISDICTIONAL

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Obs	YEAR	MONTH	ACTUAL MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	33,788	1	33,787,908					
2	2015	8	28,236	1	28,235,592					
3	2015	9	29,583	1	29,583,246					
4	2015	10	34,926	1	34,926,276					
5	2015	11	28,359	1	28,359,408					
6	2015	12	32,896	1	32,896,248					
7	2016	1	29,511	1	29,511,174					
8	2016	2	30,507	1	30,507,246					
9	2016	3	28,950	1	28,950,306					
10	2016	4	27,155	1	27,155,436					
11	2016	5	26,178	1	26,177,844					
12	2016	6	32,402	1	32,401,908	362,493	362,492,592		1	
13	2016	7	28,884	1	28,884,240					
14	2016	8	28,693	1	28,692,510					
15	2016	9	27,721	1	27,720,924					
16	2016	10	24,169	1	24,168,606					
17	2016	11	23,889	1	23,888,634					
18	2016	12	26,292	1	26,292,420					
19	2017	1	33,189	1	33,188,694					
20	2017	2	33,501	1	33,501,006					
21	2017	3	35,812	1	35,812,392					
22	2017	4	31,665	1	31,665,018					
23	2017	5	24,706	1	24,705,912					
24	2017	6	37,168	1	37,167,900	355,688	355,688,256	-6,804,336	1	-3,402,168

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VIRGINIA POWER
 DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
 12 MONTHS ENDED JUNE 30, 2017
 CUVACHP
 INDUSTRIAL 56-235.2
 VIRGINIA JURISDICTIONAL

Obs	YEAR	MONTH	ACTUAL MWH	TOTAL ACTUAL KWH (1000 X MWH)
1	2016	7	28,884	
2	2016	8	28,693	
3	2016	9	27,721	
4	2016	10	24,169	
5	2016	11	23,889	
6	2016	12	26,292	
7	2017	1	33,189	
8	2017	2	33,501	
9	2017	3	35,812	
10	2017	4	31,665	
11	2017	5	24,706	
12	2017	6	37,168	355,688,256

VIRGINIA POWER
MONTHLY KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUVACHP

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS	ACTUAL MWH	AVERAGE KWH	CHANGE IN KWH	TOTAL CHANGE IN KWH
1	2016	7	1	1	0	28,884	28,884,240	0	
2	2016	8	1	1	0	28,693	28,692,510	0	
3	2016	9	1	1	0	27,721	27,720,924	0	
4	2016	10	1	1	0	24,169	24,168,606	0	
5	2016	11	1	1	0	23,889	23,888,634	0	
6	2016	12	1	1	0	26,292	26,292,420	0	
7	2017	1	1	1	0	33,189	33,188,694	0	
8	2017	2	1	1	0	33,501	33,501,006	0	
9	2017	3	1	1	0	35,812	35,812,392	0	
10	2017	4	1	1	0	31,665	31,665,018	0	
11	2017	5	1	1	0	24,706	24,705,912	0	
12	2017	6	1	1	0	37,168	37,167,900	0	0
			=====	=====					
				12	0				

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VIRGINIA POWER
SUMMARY OF KWH ATTRIBUTABLE TO
CHANGE IN USAGE, WEATHER NORMALIZATION AND CUSTOMER GROWTH
12 MONTHS ENDED JUNE 30, 2017
COUNTY - NON-JURISDICTIONAL

Rule R8-55(e)(2)
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Obs	TYPE	KWH ATTRIBUTED TO INCREASED USAGE	TOTAL WEATHER EFFECT KWH	KWH ATTRIBUTED TO CUSTOMER GROWTH	TOTAL KWH
1	COUNTY MISCELLANEOUS LIGHT & POWER	923,601	-2,637,556	-1,660,149	-3,374,104
2	MUNICIPAL MISCELLANEOUS LIGHT & POWER	117,211,903	-30,504,756	-41,177,490	45,529,657
3	STREET LIGHTS	-3,444,313	0	19,970,686	16,526,373
4	TRAFFIC LIGHTS	-281,246	0	453,021	171,775
		=====	=====	=====	=====
		114,409,944	-33,142,312	-22,413,932	58,853,700

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VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUCOLP
MISCELLANEOUS, LIGHT AND POWER
COUNTY - NON-JURISDICTIONAL

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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	58,539	4,038	14,497					
2	2015	8	54,394	4,041	13,461					
3	2015	9	58,800	4,043	14,544					
4	2015	10	58,313	4,051	14,395					
5	2015	11	45,709	4,051	11,283					
6	2015	12	61,350	4,044	15,171					
7	2016	1	53,196	4,059	13,106					
8	2016	2	59,153	4,056	14,584					
9	2016	3	62,590	4,049	15,458					
10	2016	4	52,102	4,046	12,877					
11	2016	5	50,918	4,053	12,563					
12	2016	6	58,796	4,046	14,532	673,861	166,470		4,055	
13	2016	7	56,396	4,049	13,928					
14	2016	8	61,858	4,057	15,247					
15	2016	9	61,367	4,059	15,119					
16	2016	10	59,351	4,063	14,608					
17	2016	11	48,246	4,053	11,904					
18	2016	12	56,550	4,053	13,953					
19	2017	1	57,916	4,049	14,304					
20	2017	2	55,499	4,051	13,700					
21	2017	3	61,823	4,047	15,276					
22	2017	4	44,222	4,045	10,932					
23	2017	5	55,734	4,041	13,792					
24	2017	6	57,252	4,042	14,164	676,214	166,928	457	4,041	923,601

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VIRGINIA POWER
DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
12 MONTHS ENDED JUNE 30, 2017
CUCOLP
MISCELLANEOUS, LIGHT AND POWER
COUNTY - NON-JURISDICTIONAL

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	ACTUAL MWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED MWH	TOTAL ACTUAL MWH	TOTAL WEATHER EFFECT KWH (1000 X MWH)
1	2016	7	56,396	55,940	456			
2	2016	8	61,858	65,318	-3,460			
3	2016	9	61,367	65,641	-4,274			
4	2016	10	59,351	61,066	-1,715			
5	2016	11	48,246	48,067	179			
6	2016	12	56,550	56,362	188			
7	2017	1	57,916	57,160	756			
8	2017	2	55,499	51,811	3,688			
9	2017	3	61,823	59,373	2,450			
10	2017	4	44,222	43,685	537			
11	2017	5	55,734	56,882	-1,148			
12	2017	6	57,252	57,547	-295	676,214	678,852	-2,637,556

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VIRGINIA POWER
MONTHLY WEATHER NORMALIZED KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUCOLP

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS (TO NEAREST INTEGER)	WEATHER NORMALIZED MWH	AVERAGE KWH WEATHER NORMALIZED	CHANGE IN WEA. NORM. KWH	TOTAL CHANGE IN WEA. NORM. KWH
1	2016	7	4,055	4,049	-8	56,396	13,928	-111,427	
2	2016	8	4,054	4,057	-16	61,858	15,247	-243,956	
3	2016	9	4,054	4,059	-18	61,367	15,119	-272,137	
4	2016	10	4,054	4,063	-22	59,351	14,608	-321,369	
5	2016	11	4,053	4,053	-12	48,246	11,904	-142,845	
6	2016	12	4,052	4,053	-12	56,550	13,953	-167,432	
7	2017	1	4,051	4,049	-8	57,916	14,304	-114,430	
8	2017	2	4,049	4,051	-10	55,499	13,700	-137,001	
9	2017	3	4,048	4,047	-6	61,823	15,276	-91,658	
10	2017	4	4,046	4,045	-4	44,222	10,933	-43,730	
11	2017	5	4,044	4,041	0	55,734	13,792	0	
12	2017	6	4,041	4,042	-1	57,252	14,164	-14,164	-1,660,149
			=====	=====	=====				
			48,609		-117				

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VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUMUNLP
MISCELLANEOUS, LIGHT AND POWER
MUNICIPAL - NON-JURISDICTIONAL

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	309,026	17,691	17,468					
2	2015	8	286,150	17,703	16,164					
3	2015	9	290,089	17,712	16,378					
4	2015	10	284,897	17,716	16,081					
5	2015	11	231,338	17,754	13,030					
6	2015	12	290,850	17,757	16,379					
7	2016	1	265,705	17,748	14,971					
8	2016	2	278,379	17,761	15,674					
9	2016	3	288,069	17,778	16,204					
10	2016	4	256,311	17,807	14,394					
11	2016	5	259,071	17,828	14,532					
12	2016	6	289,484	17,846	16,221	3,329,369	187,496		17,819	
13	2016	7	308,035	17,834	17,272					
14	2016	8	332,850	17,834	18,664					
15	2016	9	322,106	17,841	18,054					
16	2016	10	301,149	17,822	16,898					
17	2016	11	262,699	17,851	14,716					
18	2016	12	298,182	17,837	16,717					
19	2017	1	304,851	17,787	17,139					
20	2017	2	288,563	17,756	16,252					
21	2017	3	311,201	17,707	17,575					
22	2017	4	251,177	17,666	14,218					
23	2017	5	279,644	17,623	15,868					
24	2017	6	307,576	17,603	17,473	3,568,031	200,846	13,350	17,560	117,211,903

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VIRGINIA POWER
 DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
 12 MONTHS ENDED JUNE 30, 2017
 CUMUNLP
 MISCELLANEOUS, LIGHT AND POWER
 MUNICIPAL - NON-JURISDICTIONAL

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	ACTUAL MWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED MWH	TOTAL ACTUAL MWH	TOTAL WEATHER EFFECT KWH (1000 X MWH)
1	2016	7	308,035	305,667	2,368			
2	2016	8	332,850	350,956	-18,106			
3	2016	9	322,106	344,562	-22,456			
4	2016	10	301,149	311,256	-10,107			
5	2016	11	262,699	263,252	-553			
6	2016	12	298,182	297,494	688			
7	2017	1	304,851	301,950	2,901			
8	2017	2	288,563	274,681	13,882			
9	2017	3	311,201	302,129	9,072			
10	2017	4	251,177	250,367	810			
11	2017	5	279,644	286,977	-7,333			
12	2017	6	307,576	309,245	-1,669	3,568,031	3,598,536	-30,504,756

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VIRGINIA POWER
MONTHLY WEATHER NORMALIZED KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUMUNLP

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS (TO NEAREST INTEGER)	WEATHER NORMALIZED MWH	AVERAGE KWH WEATHER NORMALIZED	CHANGE IN WEA. NORM. KWH	TOTAL CHANGE IN WEA. NORM. KWH
1	2016	7	17,827	17,834	-274	308,035	17,272	-4,732,623	
2	2016	8	17,833	17,834	-274	332,850	18,664	-5,113,878	
3	2016	9	17,836	17,841	-281	322,106	18,054	-5,073,246	
4	2016	10	17,835	17,822	-262	301,149	16,898	-4,427,171	
5	2016	11	17,829	17,851	-291	262,699	14,716	-4,282,416	
6	2016	12	17,818	17,837	-277	298,182	16,717	-4,630,623	
7	2017	1	17,799	17,787	-227	304,851	17,139	-3,890,548	
8	2017	2	17,773	17,756	-196	288,563	16,252	-3,185,309	
9	2017	3	17,737	17,707	-147	311,201	17,575	-2,583,529	
10	2017	4	17,690	17,666	-106	251,177	14,218	-1,507,119	
11	2017	5	17,632	17,623	-63	279,644	15,868	-999,692	
12	2017	6	17,560	17,603	-43	307,576	17,473	-751,336	-41,177,490
			=====	=====	=====				
				213,161	-2,441				

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VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUCOMUST
STREET LIGHTS
COUNTY AND MUNICIPAL - NON-JURISDICTIONAL

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	ACTUAL MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	19,334	852	22,692					
2	2015	8	19,262	852	22,608					
3	2015	9	19,321	853	22,651					
4	2015	10	19,478	856	22,755					
5	2015	11	19,612	858	22,858					
6	2015	12	19,612	857	22,884					
7	2016	1	19,760	859	23,003					
8	2016	2	19,612	858	22,858					
9	2016	3	19,760	859	23,003					
10	2016	4	19,458	860	22,626					
11	2016	5	19,443	859	22,634					
12	2016	6	19,428	859	22,617	234,080	273,190		855	
13	2016	7	18,732	859	21,807					
14	2016	8	20,041	860	23,303					
15	2016	9	19,452	859	22,645					
16	2016	10	19,515	865	22,561					
17	2016	11	19,637	865	22,702					
18	2016	12	19,711	864	22,814					
19	2017	1	19,853	865	22,951					
20	2017	2	1,310	868	1,509					
21	2017	3	38,308	869	44,083					
22	2017	4	1,282	924	1,387					
23	2017	5	38,028	954	39,862					
24	2017	6	19,534	958	20,390	235,403	266,014	-7,176	960	-3,444,313

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VIRGINIA POWER
 DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
 12 MONTHS ENDED JUNE 30, 2017
 CUCOMUST
 STREET LIGHTS
 COUNTY AND MUNICIPAL - NON-JURISDICTIONAL

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	ACTUAL MWH	TOTAL ACTUAL KWH (1000 X MWH)
1	2016	7	18,732	
2	2016	8	20,041	
3	2016	9	19,452	
4	2016	10	19,515	
5	2016	11	19,637	
6	2016	12	19,711	
7	2017	1	19,853	
8	2017	2	1,310	
9	2017	3	38,308	
10	2017	4	1,282	
11	2017	5	38,028	
12	2017	6	19,534	235,403,000

NO WEATHER NORMALIZATION EFFECT

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VIRGINIA POWER
MONTHLY KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUCOMUST

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS	ACTUAL MWH	AVERAGE KWH	CHANGE IN KWH	TOTAL CHANGE IN KWH
1	2016	7	854	859	101	18,732	21,807	2,202,482	
2	2016	8	854	860	100	20,041	23,303	2,330,349	
3	2016	9	855	859	101	19,452	22,645	2,287,139	
4	2016	10	857	865	95	19,515	22,561	2,143,266	
5	2016	11	860	865	95	19,637	22,702	2,156,665	
6	2016	12	866	864	96	19,711	22,814	2,190,111	
7	2017	1	873	865	95	19,853	22,951	2,180,387	
8	2017	2	883	868	92	1,310	1,509	138,848	
9	2017	3	897	869	91	38,308	44,083	4,011,540	
10	2017	4	913	924	36	1,282	1,387	49,948	
11	2017	5	934	954	6	38,028	39,862	239,170	
12	2017	6	960	958	2	19,534	20,390	40,781	19,970,686
				=====	=====				
				10,610	910				

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VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUCOMUTR
TRAFFIC LIGHTS
COUNTY AND MUNICIPAL - NON-JURISDICTIONAL

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Obs	YEAR	MONTH	ACTUAL MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	1,332	1,027	1,297					
2	2015	8	1,334	1,033	1,291					
3	2015	9	1,341	1,040	1,289					
4	2015	10	1,287	1,046	1,230					
5	2015	11	1,007	1,049	960					
6	2015	12	1,007	1,049	960					
7	2016	1	1,337	1,056	1,266					
8	2016	2	1,336	1,057	1,264					
9	2016	3	1,336	1,056	1,265					
10	2016	4	1,312	1,060	1,238					
11	2016	5	1,300	1,062	1,224					
12	2016	6	1,319	1,066	1,237	15,248	14,522		1,069	
13	2016	7	1,301	1,073	1,212					
14	2016	8	905	1,075	842					
15	2016	9	1,354	1,082	1,251					
16	2016	10	1,319	1,087	1,213					
17	2016	11	1,290	1,089	1,185					
18	2016	12	1,343	1,095	1,226					
19	2017	1	1,347	1,101	1,223					
20	2017	2	395	1,104	358					
21	2017	3	2,294	1,119	2,050					
22	2017	4	354	1,126	314					
23	2017	5	2,260	1,126	2,007					
24	2017	6	1,291	1,129	1,143	15,453	14,026	-496	1,134	-281,246

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VIRGINIA POWER
 DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
 12 MONTHS ENDED JUNE 30, 2017
 CUCOMUTR
 TRAFFIC LIGHTS
 COUNTY AND MUNICIPAL - NON-JURISDICTIONAL

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	ACTUAL MWH	TOTAL ACTUAL KWH (1000 X MWH)
1	2016	7	1,301	
2	2016	8	905	
3	2016	9	1,354	
4	2016	10	1,319	
5	2016	11	1,290	
6	2016	12	1,343	
7	2017	1	1,347	
8	2017	2	395	
9	2017	3	2,294	
10	2017	4	354	
11	2017	5	2,260	
12	2017	6	1,291	15,453,000

NO WEATHER NORMALIZATION EFFECT

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VIRGINIA POWER
MONTHLY KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUCOMUTR

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS	ACTUAL MWH	AVERAGE KWH	CHANGE IN KWH	TOTAL CHANGE IN KWH
1	2016	7	1,073	1,073	61	1,301	1,212	73,962	
2	2016	8	1,077	1,075	59	905	842	49,670	
3	2016	9	1,081	1,082	52	1,354	1,251	65,072	
4	2016	10	1,086	1,087	47	1,319	1,213	57,031	
5	2016	11	1,091	1,089	45	1,290	1,185	53,306	
6	2016	12	1,096	1,095	39	1,343	1,226	47,833	
7	2017	1	1,101	1,101	33	1,347	1,223	40,373	
8	2017	2	1,107	1,104	30	395	358	10,734	
9	2017	3	1,113	1,119	15	2,294	2,050	30,751	
10	2017	4	1,120	1,126	8	354	314	2,515	
11	2017	5	1,127	1,126	8	2,260	2,007	16,057	
12	2017	6	1,134	1,129	5	1,291	1,143	5,717	453,021
			=====	=====					
				13,206	402				

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VIRGINIA POWER
SUMMARY OF KWH ATTRIBUTABLE TO
CHANGE IN USAGE, WEATHER NORMALIZATION AND CUSTOMER GROWTH
12 MONTHS ENDED JUNE 30, 2017
COMMONWEALTH OF VIRGINIA

Rule R8-55(e)(2)
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Obs	TYPE	KWH ATTRIBUTED TO INCREASED USAGE	TOTAL WEATHER EFFECT KWH	KWH ATTRIBUTED TO CUSTOMER GROWTH	TOTAL KWH
1	MISCELLANEOUS LIGHT & POWER	-11,032,692	-11,517,252	9,695,291	-12,854,653
2	STREET LIGHTS	-39,257	0	48,192	8,935
3	TRAFFIC LIGHTS	-86,194	0	167,093	80,899
		=====	=====	=====	=====
		-11,158,143	-11,517,252	9,910,576	-12,764,819

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VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUSTMLP
MISCELLANEOUS, LIGHT AND POWER
COMMONWEALTH OF VIRGINIA

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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	212,101	5,178	40,962					
2	2015	8	205,643	5,174	39,745					
3	2015	9	200,689	5,169	38,826					
4	2015	10	209,013	5,168	40,444					
5	2015	11	150,877	5,203	28,998					
6	2015	12	201,918	5,202	38,815					
7	2016	1	174,699	5,200	33,596					
8	2016	2	181,335	5,202	34,859					
9	2016	3	191,632	5,214	36,753					
10	2016	4	177,123	5,199	34,069					
11	2016	5	184,647	5,195	35,543					
12	2016	6	189,896	5,204	36,490	2,279,572	439,100		5,209	
13	2016	7	194,660	5,209	37,370					
14	2016	8	235,288	5,203	45,222					
15	2016	9	216,182	5,203	41,550					
16	2016	10	196,391	5,216	37,652					
17	2016	11	167,264	5,217	32,061					
18	2016	12	190,898	5,235	36,466					
19	2017	1	181,601	5,231	34,716					
20	2017	2	168,086	5,236	32,102					
21	2017	3	193,912	5,232	37,063					
22	2017	4	155,591	5,236	29,716					
23	2017	5	189,105	5,238	36,103					
24	2017	6	182,781	5,241	34,875	2,271,759	434,894	-4,206	5,246	-11,032,692

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Aug 23 2017

VIRGINIA POWER
DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
12 MONTHS ENDED JUNE 30, 2017
CUSTMLP
MISCELLANEOUS, LIGHT AND POWER
COMMONWEALTH OF VIRGINIA

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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	ACTUAL MWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED MWH	TOTAL ACTUAL MWH	TOTAL WEATHER EFFECT KWH (1000 X MWH)
1	2016	7	194,660	196,043	-1,383			
2	2016	8	235,288	237,905	-2,617			
3	2016	9	216,182	218,515	-2,333			
4	2016	10	196,391	197,328	-937			
5	2016	11	167,264	167,430	-166			
6	2016	12	190,898	190,873	25			
7	2017	1	181,601	181,998	-397			
8	2017	2	168,086	168,940	-854			
9	2017	3	193,912	193,966	-54			
10	2017	4	155,591	157,846	-2,255			
11	2017	5	189,105	188,959	146			
12	2017	6	182,781	183,473	-692	2,271,759	2,283,276	-11,517,252

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VIRGINIA POWER
MONTHLY WEATHER NORMALIZED KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUSTMLP

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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS (TO NEAREST INTEGER)	WEATHER NORMALIZED MWH	AVERAGE KWH WEATHER NORMALIZED	CHANGE IN WEA. NORM. KWH	TOTAL CHANGE IN WEA. NORM. KWH
1	2016	7	5,211	5,209	37	194,660	37,370	1,382,688	
2	2016	8	5,213	5,203	43	235,288	45,222	1,944,529	
3	2016	9	5,215	5,203	43	216,182	41,549	1,786,628	
4	2016	10	5,218	5,216	30	196,391	37,652	1,129,549	
5	2016	11	5,220	5,217	29	167,264	32,061	929,779	
6	2016	12	5,222	5,235	11	190,898	36,466	401,123	
7	2017	1	5,225	5,231	15	181,601	34,716	520,745	
8	2017	2	5,228	5,236	10	168,086	32,102	321,020	
9	2017	3	5,231	5,232	14	193,912	37,063	518,878	
10	2017	4	5,235	5,236	10	155,591	29,716	297,156	
11	2017	5	5,240	5,238	8	189,105	36,103	288,820	
12	2017	6	5,246	5,241	5	182,781	34,875	174,376	9,695,291
			=====	=====	=====				
				62,697	255				

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VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUSTST
STREET LIGHTS
COMMONWEALTH OF VIRGINIA

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Obs	YEAR	MONTH	ACTUAL MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	389	217	1,793					
2	2015	8	331	217	1,525					
3	2015	9	392	217	1,806					
4	2015	10	343	215	1,595					
5	2015	11	380	221	1,719					
6	2015	12	380	221	1,719					
7	2016	1	378	220	1,718					
8	2016	2	383	219	1,749					
9	2016	3	379	221	1,715					
10	2016	4	378	219	1,726					
11	2016	5	378	221	1,710					
12	2016	6	365	220	1,659	4,476	20,436		221	
13	2016	7	374	220	1,700					
14	2016	8	390	220	1,773					
15	2016	9	373	220	1,695					
16	2016	10	377	220	1,714					
17	2016	11	373	221	1,688					
18	2016	12	365	223	1,637					
19	2017	1	393	223	1,762					
20	2017	2	105	224	469					
21	2017	3	639	222	2,878					
22	2017	4	51	223	229					
23	2017	5	639	223	2,865					
24	2017	6	372	222	1,676	4,451	20,086	-351	224	-39,257

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VIRGINIA POWER
DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
12 MONTHS ENDED JUNE 30, 2017
CUSTST
STREET LIGHTS
COMMONWEALTH OF VIRGINIA

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	ACTUAL MWH	TOTAL ACTUAL KWH (1000 X MWH)
1	2016	7	374	
2	2016	8	390	
3	2016	9	373	
4	2016	10	377	
5	2016	11	373	
6	2016	12	365	
7	2017	1	393	
8	2017	2	105	
9	2017	3	639	
10	2017	4	51	
11	2017	5	639	
12	2017	6	372	4,451,000

NO WEATHER NORMALIZATION EFFECT

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VIRGINIA POWER
MONTHLY KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUSTST

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS	ACTUAL MWH	AVERAGE KWH	CHANGE IN KWH	TOTAL CHANGE IN KWH
1	2016	7	221	220	4	374	1,700	6,800	
2	2016	8	221	220	4	390	1,773	7,091	
3	2016	9	221	220	4	373	1,695	6,782	
4	2016	10	221	220	4	377	1,714	6,855	
5	2016	11	221	221	3	373	1,688	5,063	
6	2016	12	221	223	1	365	1,637	1,637	
7	2017	1	221	223	1	393	1,762	1,762	
8	2017	2	222	224	0	105	469	0	
9	2017	3	222	222	2	639	2,878	5,757	
10	2017	4	222	223	1	51	229	229	
11	2017	5	223	223	1	639	2,865	2,865	
12	2017	6	224	222	2	372	1,676	3,351	48,192
				=====	=====				
				2,661	27				

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VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUSTTR
TRAFFIC LIGHTS
COMMONWEALTH OF VIRGINIA

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Obs	YEAR	MONTH	ACTUAL MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	1,253	1,342	934					
2	2015	8	1,230	1,347	913					
3	2015	9	1,221	1,349	905					
4	2015	10	1,039	1,357	766					
5	2015	11	1,285	1,359	946					
6	2015	12	1,283	1,366	939					
7	2016	1	1,293	1,376	940					
8	2016	2	1,298	1,383	939					
9	2016	3	1,294	1,387	933					
10	2016	4	1,251	1,391	899					
11	2016	5	1,204	1,397	862					
12	2016	6	1,231	1,403	877	14,882	10,852		1,404	
13	2016	7	1,214	1,412	860					
14	2016	8	1,262	1,416	891					
15	2016	9	1,266	1,417	893					
16	2016	10	1,278	1,426	896					
17	2016	11	1,250	1,430	874					
18	2016	12	1,364	1,438	949					
19	2017	1	1,394	1,442	967					
20	2017	2	628	1,442	436					
21	2017	3	1,982	1,449	1,368					
22	2017	4	569	1,451	392					
23	2017	5	1,933	1,449	1,334					
24	2017	6	1,267	1,450	874	15,407	10,733	-119	1,451	-86,194

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VIRGINIA POWER
 DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
 12 MONTHS ENDED JUNE 30, 2017
 CUSTTR
 TRAFFIC LIGHTS
 COMMONWEALTH OF VIRGINIA

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	ACTUAL MWH	TOTAL ACTUAL KWH (1000 X MWH)
1	2016	7	1,214	
2	2016	8	1,262	
3	2016	9	1,266	
4	2016	10	1,278	
5	2016	11	1,250	
6	2016	12	1,364	
7	2017	1	1,394	
8	2017	2	628	
9	2017	3	1,982	
10	2017	4	569	
11	2017	5	1,933	
12	2017	6	1,267	15,407,000

NO WEATHER NORMALIZATION EFFECT

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VIRGINIA POWER
MONTHLY KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUSTTR

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS	ACTUAL MWH	AVERAGE KWH	CHANGE IN KWH	TOTAL CHANGE IN KWH
1	2016	7	1,410	1,412	39	1,214	860	33,531	
2	2016	8	1,416	1,416	35	1,262	891	31,194	
3	2016	9	1,421	1,417	34	1,266	893	30,377	
4	2016	10	1,426	1,426	25	1,278	896	22,405	
5	2016	11	1,431	1,430	21	1,250	874	18,357	
6	2016	12	1,436	1,438	13	1,364	949	12,331	
7	2017	1	1,440	1,442	9	1,394	967	8,700	
8	2017	2	1,444	1,442	9	628	436	3,920	
9	2017	3	1,447	1,449	2	1,982	1,368	2,736	
10	2017	4	1,449	1,451	0	569	392	0	
11	2017	5	1,450	1,449	2	1,933	1,334	2,668	
12	2017	6	1,451	1,450	1	1,267	874	874	167,093
			=====	=====					
				17,222	190				

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VIRGINIA POWER
SUMMARY OF KWH ATTRIBUTABLE TO
CHANGE IN USAGE, WEATHER NORMALIZATION AND CUSTOMER GROWTH
12 MONTHS ENDED JUNE 30, 2017
MS - GOVERNMENTAL SERVICE

Rule R8-55(e)(2)
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Obs	TYPE	KWH ATTRIBUTED TO INCREASED USAGE	TOTAL WEATHER EFFECT KWH	KWH ATTRIBUTED TO CUSTOMER GROWTH	TOTAL KWH
1	MS	-12,242,614	-41,277,315	-58,035,643	-111,555,572
		=====	=====	=====	=====
		-12,242,614	-41,277,315	-58,035,643	-111,555,572

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VIRGINIA POWER
DERIVATION OF KWH ATTRIBUTABLE TO CHANGE IN USAGE
12 MONTHS ENDED JUNE 30, 2017
CUMS
MS - GOVERNMENTAL SERVICE
NON-JURISDICTIONAL

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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL MWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	PREDICTED END OF PERIOD CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1	2015	7	321,948	52	6,191,315					
2	2015	8	285,308	52	5,486,686					
3	2015	9	287,977	52	5,538,020					
4	2015	10	255,354	52	4,910,656					
5	2015	11	203,284	52	3,909,312					
6	2015	12	257,068	52	4,943,606					
7	2016	1	254,311	52	4,890,595					
8	2016	2	244,416	52	4,700,314					
9	2016	3	216,376	52	4,161,075					
10	2016	4	223,297	52	4,294,173					
11	2016	5	223,146	52	4,291,276					
12	2016	6	268,516	52	5,163,778	3,041,002	58,480,805		54	
13	2016	7	256,103	56	4,573,259					
14	2016	8	297,049	56	5,304,441					
15	2016	9	280,341	56	5,006,088					
16	2016	10	245,523	56	4,384,336					
17	2016	11	209,877	56	3,747,798					
18	2016	12	233,761	56	4,174,299					
19	2017	1	254,186	56	4,539,037					
20	2017	2	428,955	56	7,659,909					
21	2017	3	257,345	56	4,595,452					
22	2017	4	222,160	56	3,967,144					
23	2017	5	268,632	56	4,797,005					
24	2017	6	296,064	56	5,286,851	3,249,995	58,035,619	-445,186	55	-12,242,614

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VIRGINIA POWER
DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
12 MONTHS ENDED JUNE 30, 2017
CUMS
MS - GOVERNMENTAL SERVICE
NON-JURISDICTIONAL

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	WEATHER NORMALIZED MWH	ACTUAL MWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED MWH	TOTAL ACTUAL MWH	TOTAL WEATHER EFFECT KWH (1000 X MWH)
1	2016	7	256,103	255,201	902			
2	2016	8	297,049	304,263	-7,214			
3	2016	9	280,341	289,451	-9,110			
4	2016	10	245,523	251,629	-6,106			
5	2016	11	209,877	212,769	-2,892			
6	2016	12	233,761	234,015	-254			
7	2017	1	254,186	254,887	-701			
8	2017	2	428,955	432,786	-3,831			
9	2017	3	257,345	260,114	-2,769			
10	2017	4	222,160	225,248	-3,088			
11	2017	5	268,632	273,932	-5,300			
12	2017	6	296,064	296,977	-913	3,249,995	3,291,272	-41,277,315

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VIRGINIA POWER
MONTHLY WEATHER NORMALIZED KWH ATTRIBUTED TO CHANGE IN CUSTOMERS
12 MONTHS ENDED JUNE 30, 2017
CUMS

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	PREDICTED CUSTOMERS	ACTUAL CUSTOMERS	CHANGE IN CUSTOMERS (TO NEAREST INTEGER)	WEATHER NORMALIZED MWH	AVERAGE KWH WEATHER NORMALIZED	CHANGE IN WEA. NORM. KWH	TOTAL CHANGE IN WEA. NORM. KWH
1	2016	7	54	56	-1	256,103	4,573,268	-4,573,268	
2	2016	8	55	56	-1	297,049	5,304,446	-5,304,446	
3	2016	9	55	56	-1	280,341	5,006,089	-5,006,089	
4	2016	10	55	56	-1	245,523	4,384,339	-4,384,339	
5	2016	11	56	56	-1	209,877	3,747,804	-3,747,804	
6	2016	12	56	56	-1	233,761	4,174,304	-4,174,304	
7	2017	1	56	56	-1	254,186	4,539,036	-4,539,036	
8	2017	2	56	56	-1	428,955	7,659,911	-7,659,911	
9	2017	3	56	56	-1	257,345	4,595,446	-4,595,446	
10	2017	4	56	56	-1	222,160	3,967,143	-3,967,143	
11	2017	5	56	56	-1	268,632	4,797,000	-4,797,000	
12	2017	6	55	56	-1	296,064	5,286,857	-5,286,857	-58,035,643
			=====	=====	=====				
			672		-12				

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VIRGINIA POWER
DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
12 MONTHS ENDED JUNE 30, 2017
FERC
MUNICIPALS

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Obs	YEAR	MONTH	WEATHER NORMALIZED KWH	ACTUAL KWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED KWH	TOTAL ACTUAL KWH	TOTAL WEATHER EFFECT KWH
1	2016	7	140,933,338	146,026,831	-5,093,493			
2	2016	8	140,296,019	150,030,504	-9,734,485			
3	2016	9	119,415,407	126,988,890	-7,573,483			
4	2016	10	109,733,804	107,345,242	2,388,561			
5	2016	11	111,872,498	110,416,569	1,455,930			
6	2016	12	132,747,965	132,416,636	331,329			
7	2017	1	143,651,439	134,662,887	8,988,553			
8	2017	2	129,115,631	110,764,681	18,350,950			
9	2017	3	121,341,830	121,596,089	-254,259			
10	2017	4	107,781,306	105,616,041	2,165,265			
11	2017	5	109,472,062	109,280,769	191,293			
12	2017	6	123,066,892	125,568,877	-2,501,985	1,489,428,192	1,480,714,017	8,714,175

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VIRGINIA POWER
DERIVATION OF WEATHER NORMALIZATION EFFECT KWH
12 MONTHS ENDED JUNE 30, 2017
FERC
COOPS

Rule R8-55(e)(2)
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Obs	YEAR	MONTH	WEATHER NORMALIZED KWH	ACTUAL KWH	WEATHER EFFECT	TOTAL WEATHER NORMALIZED KWH	TOTAL ACTUAL KWH	TOTAL WEATHER EFFECT KWH
1	2016	7	104,109,321	110,896,000	-6,786,679			
2	2016	8	103,587,791	112,796,000	-9,208,209			
3	2016	9	97,811,468	109,378,000	-11,566,532			
4	2016	10	121,755,668	114,485,000	7,270,668			
5	2016	11	109,980,297	106,069,000	3,911,297			
6	2016	12	91,896,874	91,033,000	863,874			
7	2017	1	98,222,229	88,313,000	9,909,229			
8	2017	2	100,149,335	77,250,000	22,899,335			
9	2017	3	100,883,136	100,214,000	669,136			
10	2017	4	89,236,112	86,422,000	2,814,112			
11	2017	5	80,588,034	82,801,000	-2,212,966			
12	2017	6	86,549,245	86,371,000	178,245	1,184,769,510	1,166,028,000	18,741,510

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Rule R8-55(e)(3)

**DOMINION ENERGY NORTH CAROLINA
DOCKET NO. E-22, SUB 546
RULE R8-55**

Rule R8-55 (e) (3)

Adjusted test period kWh generation corresponding to normalized test period kWh usage. The methodology for such adjustment shall be the same methodology adopted by the Commission in the utility's last general rate case, including adjustment by type of generation; i.e., nuclear, fossil pumped storage, purchased power, etc. In the event that said methodology is inconsistent with the normalization methodology set forth in paragraph (d)(1) above, additional pro forma calculations shall be presented incorporating the normalization methodology reflected in paragraph (d)(1).

Response

See Exhibit BEP-1, Schedule 4 attached to the testimony of Bruce E. Petrie.

Rule R8-55(e)(4)

**DOMINION ENERGY NORTH CAROLINA
DOCKET NO. E-22, SUB 546
RULE R8-55**

Rule R8-55 (e) (4)

Cost of fuel and applicable fuel-related costs corresponding to the adjusted test period kWh generation, including a detailed explanation showing how such cost of fuel and fuel-related costs were derived. The cost of fuel shall be based on end-of-period unit fuel prices incurred during the test period, although the Commission may consider other fuel prices if test period fuel prices are demonstrated to be non-representative on an on-going basis. Unit fuel prices shall include delivered fuel prices and burned fuel expense rates as appropriate.

Response

Consistent with the methodology applied in its 2013 fuel adjustment proceeding, the Company's cost of fuel calculations are generally based on the twelve month historical average for fuel prices incurred during the test period.

See Schedule attached.

**DOMINION ENERGY NORTH CAROLINA
FUEL AND PURCHASED POWER EXPENSE
IN DOLLARS PER MWH GENERATED**

Rule R8-55(e)(4)

Actual Fuel Expense Rate- \$/MWh

Jul 2016 - Jun 2017
12 month Average

Nuclear	\$6.78
Coal (1)	\$30.62
Heavy Oil	\$88.64
Combined Cycle and Combustion Turbine (2)	\$25.49
Power Purchases (applic NUG and PJM mkt at 78%)	\$20.33

(1) Coal includes wood and natural gas steam generation.

(2) CC & CT includes jet oil, light oil, and natural gas generation

**DOMINION ENERGY NORTH CAROLINA
DOCKET NO. E-22, SUB 546
RULE R8-55**

Rule R8-55 (e) (5)

Procurement practices and inventories for fuel burned and for ammonia, lime, limestone, urea, dibasic acid, sorbents, and catalysts consumed in reducing or treating emissions.

Response

See the direct testimony of Gregory A. Workman for procurement practices and Schedule 5 of the testimony of Ronnie T. Campbell for inventories for fuel burned. Pursuant to G.S. § 62-133.2 (a3), the procurement practices and inventories for ammonia, lime, limestone, urea, dibasic acid, sorbents, and catalysts consumed in reducing or treating emissions are not applicable to the Company.

**DOMINION ENERGY NORTH CAROLINA
DOCKET NO. E-22, SUB 546
RULE R8-55**

Rule R8-55 (e) (6)

The cost of fuel burned and of ammonia, lime, limestone, urea, dibasic acid, sorbents, and catalysts consumed in reducing or treating emissions at each generating facility.

Response

See Exhibit RTC-1, Schedule 5 attached to the testimony of Ronnie T. Campbell for the cost of fuel burned. Pursuant to G.S. § 62-133.2 (a3), the cost of ammonia, lime, limestone, urea, dibasic acid, sorbents, and catalysts consumed in reducing or treating emissions are not applicable to the Company.

**DOMINION ENERGY NORTH CAROLINA
DOCKET NO. E-22, SUB 546
RULE R8-55**

Rule R8-55 (e) (10)

The monthly fuel report and the monthly base load power plant performance report for the last month in the test period and any information required by Rules R8-52 and R8-53 for the test period which has not already been filed with the Commission. Further, such information for the complete 12-month test period shall be provided by the electric public utility to any intervenor upon request.

Response

The Monthly Base Load Power Plant Performance Reports for the months of July 2016 through December 2016 were filed in Docket No. E-22, Sub 531. The Monthly Base Load Power Plant Performance Reports for the months of January 2017 through June 2017 were filed in Docket No. E-22, Sub 541. The Monthly Fuel Reports for the months of July 2016 through December 2016 were filed in Docket No. E-22, Sub 531. The Monthly Fuel Reports for the months of January 2017 through June 2017 were filed in Docket No. E-22, Sub 541.

**DOMINION ENERGY NORTH CAROLINA
DOCKET NO. E-22, SUB 546
RULE R8-55**

Rule R8-55 (e) (11)

All workpapers supporting the calculations, adjustments and normalizations described above.

Response

Attached are the work papers supporting the testimony of Company witness Bruce E. Petrie.

DOMINION ENERGY NORTH CAROLINA
POWER DOCKET NO. E-22, SUB 546
RULE R8-55

Rule R8-55(e)(11)

NORMALIZATION OF NUCLEAR GENERATION BASED ON EXPECTED NET CAPACITY FACTORS FOR RATE YEAR
COMPANY OWNERSHIP ONLY

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Unit	Actual Net Capacity Factor for 12 Months Ended June 2017	Expected Net Capacity Factor for 12 Months Ended Dec '18	MDC	Normalized Generation MDC x CF x 8760 Hrs. in Period (3) x (4) x 8760	Va. Power North Anna Portion (88.4%) NA (5) x 0.884	Va. Power Expected Nuc. Gen. (5) Surry, (6) NA	Va. Power Actual Nuc. Gen. 12 mos. Ended 6/14	Increase (Decrease) in Nuclear (7) - (8)
North Anna 1	91.6%	90.4%	948	7,509,042	6,637,993	6,637,993		
North Anna 2	100.6%	99.6%	944	8,236,517	7,281,081	7,281,081		
Total North Anna					13,919,074	13,919,074	14,079,348	
Surry 1	96.6%	93.1%	838	6,834,770		6,834,770		
Surry 2	93.1%	91.1%	838	6,688,664		6,688,664		
Total Surry						13,523,434	13,919,279	
Grand Total				29,268,993		27,442,508	27,998,627	(556,118)

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AUG 23 2017

July Outlook - Extend Doswell and Spruance

<u>Date</u>	<u>2017-07-05 July Outlook: (K\$)</u>	<u>Extend Doswell and Spruance 2: (K\$)</u>	<u>DELTA</u>
7/1/2017	188,813	186,689	(2,123)
8/1/2017	188,112	186,205	(1,907)
9/1/2017	153,910	152,105	(1,805)
10/1/2017	129,535	128,209	(1,326)
11/1/2017	128,135	128,035	(101)
12/1/2017	170,798	169,814	(985)
1/1/2018	224,512	220,043	(4,469)
2/1/2018	190,702	188,009	(2,693)
3/1/2018	162,505	160,550	(1,955)
4/1/2018	130,727	129,289	(1,438)
5/1/2018	128,438	127,956	(482)
6/1/2018	153,263	152,908	(355)
7/1/2018	195,452	193,884	(1,568)
8/1/2018	190,558	189,294	(1,265)
9/1/2018	141,927	141,169	(758)
10/1/2018	124,417	124,038	(379)
11/1/2018	135,247	135,089	(158)
12/1/2018	166,579	165,917	(662)
2017 (Jul-Dec)	959,304	951,057	(8,247)
2018	1,944,328	1,928,144	(16,184)

Rule R8-55(e)(12)

**DOMINION ENERGY NORTH CAROLINA
DOCKET NO. E-22, SUB 546
RULE R8-55**

Rule R8-55 (e) (12)

The nuclear capacity rating(s) in the last rate case and the rating(s) proposed in this proceeding. If they differ, supporting justification for the change in nuclear capacity rating(s) since the last rate case.

Response

The nuclear net summer Maximum Dependable Capacity (MDC) ratings in the Company's last fuel case and the ratings proposed in this proceeding are as follows:

NUCLEAR UNIT	NET MDC MW LAST FUEL CASE DOCKET NO. E-22, SUB 534	NET MDC MW CURRENT PROCEEDING DOCKET NO. E-22, SUB 546
North Anna 1	948	948
North Anna 2	944	944
Surry 1	838	838
Surry 2	838	838

**DOMINION ENERGY NORTH CAROLINA
DOCKET NO. E-22, SUB 546
RULE R8-55**

Question (e)(13):

The proposed rate design to recover the electric public utility's cost of fuel and fuel-related costs.

Response:

See the testimony of James D. Merritt, and Exhibit JDM-1, Schedules 1 through 7.