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Oct 08 2018

October 8, 2018

**VIA ELECTRONIC FILING**

Ms. M. Lynn Jarvis, Chief Clerk  
North Carolina Utilities Commission  
Dobbs Building  
430 North Salisbury Street  
Raleigh, North Carolina 27603

**Re: Application of Dominion Energy North Carolina for Approval of Cost Recovery for Demand-side Management Programs and Energy Efficiency Measures  
Docket No. E-22, Sub 556**

Dear Ms. Jarvis:

Enclosed for filing on behalf of Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina (the “Company”), are the Corrected Schedules 1, 2, 4, and 7 of Company Witness Deanna R. Kesler, which were initially filed in support of the Company’s Application on August 21, 2018. Witness Kesler’s Schedules have been updated to reflect the correct reserve margin and to correct the Evaluation, Measurement, and Verification expenses for the Company’s Air Conditional Cycling Program. Specifically, corrections have been made to: Revised Schedule 1, page 1; Revised Schedule 2, pages 1-7; Revised Schedule 4, pages 1-2; and Revised Schedule 7, page 1. No corrections were necessary to Witness Kesler’s remaining Schedules 3, 5, or 6, or to page 2 of Schedule 1.

In addition, it has come to the Company’s attention that page 8, line 9 of Witness Kesler’s direct testimony should be corrected to remove “Phase III North Carolina-only” from the list of programs for which going forward cost benefits results were calculated for purposes of this proceeding, since as discussed in the Application the Company is proposing to close one of its Phase III programs and to transition the remaining two Phase III programs to a North Carolina-only basis.

Ms. M. Lynn Jarvis, Chief Clerk  
October 8, 2018  
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Thank you for your assistance with this matter, and feel free to contact me with any questions.

Very truly yours,

/s/Andrea R. Kells

ARK:kjg

Enclosure

cc: Heather D. Fennell

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**Revenue Requirement per Appropriate Unit<sup>1,2</sup>**  
**R8-69(f)(1)(ii)(a)**

Program	Total Revenue Requirement (000s)	kW Reductions	MWh Reductions	DSM Cost per kW	EE Cost per MWh
Air Conditioner Cycling Program	10,141	63,793	N/A	\$ 159	N/A
Non-Residential Heating & Cooling Efficiency Program	132	41	169	N/A	\$ 785
Non-Residential Lighting Systems & Controls Program	276	219	1,214	N/A	\$ 227
Residential Income and Age Qualifying Home Improvement Program	4,180	746	7,698	N/A	\$ 543
Non-Residential Small Business Improvement Program	7,969	6,236	34,043	N/A	\$ 234
Non-Residential Prescriptive Program	6,540	12,455	81,270	N/A	\$ 80

*Note: 1) Exclusive of net lost revenues*

*Note: 2) Based on Individual Program Evaluation*

**Avoided Costs per Appropriate Unit**  
**R8-69(f)(1)(ii)(b)**

Program	Total Avoided Costs (000s)	Capacity Reductions kW	Energy Reductions (MWh)	DSM Avoided Cost per kW	EE Avoided Cost per MWh
Air Conditioner Cycling Program	\$ 2,324	63,793	N/A	\$ 36	\$ -
Non-Residential Heating & Cooling Efficiency Program	\$ 8	41	169	\$ 190	\$ 46
Non-Residential Lighting Systems & Controls Program	\$ 50	219	1,214	\$ 228	\$ 41
Residential Income and Age Qualifying Home Improvement	\$ 298	746	7,698	\$ 400	\$ 39
Non-Residential Small Business Improvement Program	\$ 1,463	6,236	34,043	\$ 235	\$ 43
Non-Residential Prescriptive Program	\$ 3,249	12,455	81,270	\$ 261	\$ 40

*Note: Based on Individual Program Evaluation*

**North Carolina only Non-Residential Heating and Cooling Efficiency Program UCT**  
Program Life 15.00

	2018 Pen. Benefits	2018 Pen. Costs		2018 Vintage Year C/B Scores	
Year	Total Benefits (000s)	Total Costs (000s)	Annual Net Benefits (000s)	UCT Ratio	TRC Ratio
<b>NPV</b>	<b>\$ 283</b>	<b>\$ 90</b>	<b>\$192.90</b>	3.15	3.38
2018	\$ -	\$ -	\$ -		
2019	\$ 8	\$ 95	-\$88		
2020	\$ 65	\$ -	\$ 65		
2021	\$ 66	\$ -	\$ 66		
2022	\$ 18	\$ -	\$ 18		
2023	\$ 19	\$ -	\$ 19		
2024	\$ 20	\$ -	\$ 20		
2025	\$ 21	\$ -	\$ 21		
2026	\$ 22	\$ -	\$ 22		
2027	\$ 23	\$ -	\$ 23		
2028	\$ 24	\$ -	\$ 24		
2029	\$ 25	\$ -	\$ 25		
2030	\$ 26	\$ -	\$ 26		
2031	\$ 27	\$ -	\$ 27		
2032	\$ 28	\$ -	\$ 28		
2033	\$ 30	\$ -	\$ 30		
2034	\$ 14	\$ -	\$ 14		

*Note: Based on Individual Program Evaluation*

**North Carolina only Non-Residential Lighting Systems and Controls Program UCT**  
Program Life 10.00

	2018 Pen. Benefits	2018 Pen. Costs		2018 Vintage Year C/B Scores	
Year	Total Benefits (000s)	Total Costs (000s)	Annual Net Benefits (000s)	UCT Ratio	TRC Ratio
<b>NPV</b>	<b>\$ 1,261</b>	<b>\$ 203</b>	<b>\$1,057.73</b>	6.20	4.81
2018	\$ -	\$ -	\$ -		
2019	\$ 50	\$ 216	-\$166		
2020	\$ 360	\$ -	\$ 360		
2021	\$ 363	\$ -	\$ 363		
2022	\$ 109	\$ -	\$ 109		
2023	\$ 114	\$ -	\$ 114		
2024	\$ 116	\$ -	\$ 116		
2025	\$ 120	\$ -	\$ 120		
2026	\$ 128	\$ -	\$ 128		
2027	\$ 134	\$ -	\$ 134		
2028	\$ 138	\$ -	\$ 138		
2029	\$ 66	\$ -	\$ 66		

*Note: Based on Individual Program Evaluation*

**AC Cycling Program UCT**  
Program Life 15.00

	2018 Pen. Benefits	2018 Pen. Costs		2018 Vintage Year C/B Scores	
<b>Year</b>	<b>Total Benefits (000s)</b>	<b>Total Costs (000s)</b>	<b>Annual Net Benefits (000s)</b>	<b>UCT Ratio</b>	<b>TRC Ratio</b>
<b>NPV</b>	<b>\$ 7,497</b>	<b>\$ 6,150</b>	<b>\$1,347.11</b>	1.22	1.94
2018	\$ -	\$ -	\$ -		
2019	\$ 86	\$ 4,349	-\$4,263		
2020	\$ 2,572	\$ 240	\$ 2,332		
2021	\$ 2,594	\$ 240	\$ 2,354		
2022	\$ 307	\$ 240	\$ 67		
2023	\$ 327	\$ 240	\$ 87		
2024	\$ 348	\$ 240	\$ 108		
2025	\$ 372	\$ 240	\$ 132		
2026	\$ 393	\$ 240	\$ 153		
2027	\$ 424	\$ 240	\$ 184		
2028	\$ 449	\$ 240	\$ 209		
2029	\$ 482	\$ 240	\$ 242		
2030	\$ 513	\$ 240	\$ 273		
2031	\$ 537	\$ 240	\$ 297		
2032	\$ 552	\$ 240	\$ 312		
2033	\$ 567	\$ 240	\$ 327		
2034	\$ 242	\$ -	\$ 242		

*Note: Based on Individual Program Evaluation*

**Income and Age Qualifying Home Improvement**  
Program Life 15.00

Year	2018 Pen. Benefits	2018 Pen. Costs	Annual Net Benefits (000s)	2018 Pen. Benefits	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
<b>NPV</b>	<b>\$ 942</b>	<b>\$ 3,932</b>	<b>-\$2,990.58</b>	0.24	0.24
2018	\$ -	\$ -	\$ -		
2019	\$ 33	\$ 4,180	-\$4,148		
2020	\$ 179	\$ -	\$ 179		
2021	\$ 180	\$ -	\$ 180		
2022	\$ 71	\$ -	\$ 71		
2023	\$ 74	\$ -	\$ 74		
2024	\$ 75	\$ -	\$ 75		
2025	\$ 77	\$ -	\$ 77		
2026	\$ 82	\$ -	\$ 82		
2027	\$ 87	\$ -	\$ 87		
2028	\$ 88	\$ -	\$ 88		
2029	\$ 92	\$ -	\$ 92		
2030	\$ 95	\$ -	\$ 95		
2031	\$ 98	\$ -	\$ 98		
2032	\$ 102	\$ -	\$ 102		
2033	\$ 108	\$ -	\$ 108		
2034	\$ 51	\$ -	\$ 51		

*Note: Based on Individual Program Evaluation*

**Small Business Improvement Program**  
Program Life 14.00

Year	2018 Pen. Benefits	2018 Pen. Costs	Annual Net Benefits (000s)	2018 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
<b>NPV</b>	<b>\$ 9,821</b>	<b>\$ 7,301</b>	<b>\$2,519.43</b>	1.35	1.03
2018	\$ -	\$ -	\$ -		
2019	\$ 308	\$ 7,762	-\$7,454		
2020	\$ 2,345	\$ -	\$ 2,345		
2021	\$ 2,354	\$ -	\$ 2,354		
2022	\$ 681	\$ -	\$ 681		
2023	\$ 710	\$ -	\$ 710		
2024	\$ 730	\$ -	\$ 730		
2025	\$ 758	\$ -	\$ 758		
2026	\$ 805	\$ -	\$ 805		
2027	\$ 845	\$ -	\$ 845		
2028	\$ 869	\$ -	\$ 869		
2029	\$ 916	\$ -	\$ 916		
2030	\$ 949	\$ -	\$ 949		
2031	\$ 981	\$ -	\$ 981		
2032	\$ 1,015	\$ -	\$ 1,015		
2033	\$ 479	\$ -	\$ 479		

*Note: Based on Individual Program Evaluation*



**Non-Residential Prescriptive Program**  
Program Life 6.00

Year	2018 Pen. Benefits	2018 Pen. Costs	Annual Net Benefits (000s)	2018 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
<b>NPV</b>	<b>\$ 20,706</b>	<b>\$ 5,960</b>	<b>\$14,746.27</b>	3.47	2.48
2018	\$ -	\$ -	\$ -		
2019	\$ 1,126	\$ 6,335	-\$5,209		
2020	\$ 7,713	\$ -	\$ 7,713		
2021	\$ 7,757	\$ -	\$ 7,757		
2022	\$ 2,433	\$ -	\$ 2,433		
2023	\$ 2,551	\$ -	\$ 2,551		
2024	\$ 2,601	\$ -	\$ 2,601		
2025	\$ 1,196	\$ -	\$ 1,196		

*Note: Based on Individual Program Evaluation*

**PORTFOLIO**  
Program Life 15.00

Year	2018 Pen. Benefits	2018 Pen. Costs	Annual Net Benefits (000s)	2018 Vintage Year C/B Scores	
	Total Benefits (000s)	Total Costs (000s)		UCT Ratio	TRC Ratio
<b>NPV</b>	<b>\$ 39,563</b>	<b>\$ 19,704</b>	<b>\$19,858.65</b>	2.01	1.79
2018	\$ -	\$ -	\$ -		
2019	\$ 1,578	\$ 18,758	-\$17,179		
2020	\$ 13,047	\$ 240	\$ 12,807		
2021	\$ 13,136	\$ 240	\$ 12,896		
2022	\$ 3,549	\$ 240	\$ 3,309		
2023	\$ 3,721	\$ 240	\$ 3,481		
2024	\$ 3,815	\$ 240	\$ 3,575		
2025	\$ 2,470	\$ 240	\$ 2,230		
2026	\$ 1,348	\$ 240	\$ 1,108		
2027	\$ 1,426	\$ 240	\$ 1,186		
2028	\$ 1,480	\$ 240	\$ 1,240		
2029	\$ 1,489	\$ 240	\$ 1,249		
2030	\$ 1,488	\$ 240	\$ 1,248		
2031	\$ 1,544	\$ 240	\$ 1,304		
2032	\$ 1,595	\$ 240	\$ 1,355		
2033	\$ 1,075	\$ 240	\$ 835		
2034	\$ 257	\$ -	\$ 257		

	<b>Air Conditioner Cycling Program</b>			
	<b>Participant</b>	<b>Utility</b>	<b>TRC</b>	<b>RIM</b>
Total NPV Benefits	\$ 46,885	\$ 127,965	\$ 127,965	\$ 127,965
Total NPV Costs	\$ -	\$ 148,033	\$ 97,042	\$ 148,033
Net Benefits NPV	\$ 46,885	\$ (20,069)	\$ 30,923	\$ (20,069)
Benefit/Cost Ratio	N/A	0.86	1.32	0.86
	<b>Income and Age Qualifying Home Improvement Program</b>			
	<b>Participant</b>	<b>Utility</b>	<b>TRC</b>	<b>RIM</b>
Total NPV Benefits	\$ 22,616	\$ 11,187	\$ 11,187	\$ 11,187
Total NPV Costs	\$ -	\$ 46,261	\$ 46,261	\$ 71,402
Net Benefits NPV	\$ 22,616	\$ (35,074)	\$ (35,074)	\$ (60,215)
Benefit/Cost Ratio	N/A	0.24	0.24	0.16
	<b>Small Business Improvement Program</b>			
	<b>Participant</b>	<b>Utility</b>	<b>TRC</b>	<b>RIM</b>
Total NPV Benefits	\$ 94,867	\$ 59,330	\$ 59,330	\$ 59,330
Total NPV Costs	\$ 46,247	\$ 46,475	\$ 55,527	\$ 113,023
Net Benefits NPV	\$ 48,619	\$ 12,855	\$ 3,803	\$ (53,693)
Benefit/Cost Ratio	2.05	1.28	1.07	0.52

*Note: Based on Individual Program Evaluation*

	Portfolio			
	Participant	Utility	TRC	RIM
Total NPV Benefits	\$ 412,906	\$ 347,127	\$ 347,127	\$ 347,127
Total NPV Costs	\$ 128,735	\$ 280,287	\$ 261,346	\$ 588,351
Net Benefits NPV	\$ 284,171	\$ 66,840	\$ 85,781	\$ (241,224)
Benefit/Cost Ratio	3.21	1.24	1.33	0.59

Date	Weather Conditions °F	Event Trigger	Control Mode	Number of Customers Controlled	Number of Customers Enrolled
12-Jun-17	91	Peak Shaving	AC Units	81,795	97,838
13-Jun-17	90	Peak Shaving	AC Units	81,623	97,716
22-Jun-17	87	Peak Shaving	AC Units	81,553	97,251
3-Jul-17	93	Peak Shaving	AC Units	81,510	96,975
7-Jul-17	89	Peak Shaving	AC Units	81,490	96,937
11-Jul-17	95	Peak Shaving	AC Units	81,443	96,913
12-Jul-17	98	Peak Shaving	AC Units	81,331	96,878
13-Jul-17	98	Peak Shaving	AC Units	81,153	96,742
14-Jul-17	97	Peak Shaving	AC Units	80,973	96,520
18-Jul-17	91	Peak Shaving	AC Units	80,945	96,254
19-Jul-17	94	Peak Shaving	AC Units	80,853	96,155
20-Jul-17	97	Peak Shaving	AC Units	80,752	96,022
21-Jul-17	97	Peak Shaving	AC Units	80,668	95,877
24-Jul-17	94	Peak Shaving	AC Units	80,645	95,798
27-Jul-17	88	Peak Shaving	AC Units	68,663	95,622
1-Aug-17	89	Peak Shaving	AC Units	68,658	95,546
2-Aug-17	89	Peak Shaving	AC Units	68,654	95,523
3-Aug-17	92	Peak Shaving	AC Units	68,652	95,486
4-Aug-17	90	Peak Shaving	AC Units	68,632	95,404
16-Aug-17	90	Peak Shaving	AC Units	68,621	95,025
17-Aug-17	85	Peak Shaving	AC Units	68,614	95,003
18-Aug-17	91	Peak Shaving	AC Units	80,611	94,962
21-Aug-17	88	Peak Shaving	AC Units	80,596	94,918
22-Aug-17	90	Peak Shaving	AC Units	80,559	94,868
23-Aug-17	85	Peak Shaving	AC Units	80,540	94,805
5-Sep-17	86	Peak Shaving	AC Units	80,576	94,514
20-Sep-17	88	Peak Shaving	AC Units	81,873	94,169
21-Sep-17	88	Peak Shaving	AC Units	81,852	94,134
25-Sep-17	87	Peak Shaving	AC Units	81,816	94,080

Definitions:

1. The "Number of Customers Enrolled" is the count of active participants effective the day of the event, defined as gross participants enrolled in the program less deactivations and removals.

2. The "Number of Customers Controlled" further adjusts the "Number of Customers Enrolled" for specific event date opt-outs, participants not in the dispatch log.

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing Corrected Schedules 1, 2, 4, and 7 of Company Witness Deanna R. Kesler, as filed in Docket Nos. E-22, Sub 556, was served via electronic delivery or mailed, first-class, postage prepaid, upon all parties of record.

This, the 8<sup>th</sup> day of October, 2018.

/s/Andrea R. Kells

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