

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-22, SUB 589

In the Matter of)	TESTIMONY OF
Application by Virginia Electric and)	DAVID M. WILLIAMSON
Power Company, d/b/a Dominion)	On Behalf of the Public
Energy North Carolina, for Approval of)	Staff – North Carolina
Demand-Side Management and)	Utilities Commission
Energy Efficiency Cost Recovery Rider)	
under N.C. Gen. Stat. § 62-133.9 and)	
Commission Rule R8-69)	

October 26, 2020

1 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND**
2 **PRESENT POSITION.**

3 A. My name is David M. Williamson. My business address is 430 North
4 Salisbury Street, Dobbs Building, Raleigh, North Carolina. I am a
5 Utilities Engineer with the Energy Division of the Public Staff, North
6 Carolina Utilities Commission.

7 **Q. BRIEFLY STATE YOUR QUALIFICATIONS AND DUTIES.**

8 A. My qualifications and duties are included in Appendix A.

9 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

10 A. The purpose of my testimony is to offer recommendations
11 concerning: (1) the portfolio of demand side management (DSM) and
12 energy efficiency (EE) programs for which Virginia Electric and
13 Power Company (VEPCO), d/b/a Dominion Energy North Carolina
14 (DENC or the Company) is seeking cost recovery through the
15 DSM/EE rider; (2) the cost effectiveness of each DSM and EE
16 program; and (3) the evaluation, measurement, and verification
17 (EM&V) support data for the approved DSM and EE programs.

18 **Q. WHAT STATUTES, COMMISSION RULES, OR ORDERS HAVE**
19 **YOU REVIEWED IN YOUR INVESTIGATION OF DENC'S**
20 **PROPOSED DSM/EE RIDER?**

21 A. In preparing my testimony, I reviewed the application, testimony, and
22 exhibits for approval of cost recovery for DSM and EE measures filed

1 by DENC pursuant to N.C. Gen. Stat. § 62-133.9 and Commission
2 Rule R8-69 on August 11, 2020, the DSM/EE cost recovery
3 mechanism approved by the Commission on May 27, 2015 (2015
4 Mechanism), the DSM/EE cost recovery mechanism approved by
5 the Commission on May 22, 2017 (2017 Mechanism), and responses
6 to Public Staff data requests. I also reviewed the 2020 EM&V
7 Report¹, recent Virginia legislation that directly impacts the operation
8 and availability of DSM/EE programs in North Carolina, and previous
9 Commission orders related to the Company's DSM and EE programs
10 and cost recovery rider proceedings.

11 **Q. PLEASE IDENTIFY THE DSM AND EE PROGRAMS FOR WHICH**
12 **DENC IS SEEKING COST RECOVERY THROUGH THE DSM/EE**
13 **RIDER IN THIS PROCEEDING.**

14 A. The Company is seeking recovery of costs and/or utility incentives
15 incurred for the following DSM and EE programs:

16 Residential

- 17 • Residential Air Conditioner (AC) Cycling Program (Sub 465)
- 18 • Residential Lighting Program (Sub 468)
- 19 • Residential Home Energy Check Up Program (Sub 498)
- 20 • Residential Duct Testing and Sealing Program (Sub 497)
- 21 • Residential Heat Pump Tune-Up Program (Sub 499)

¹ "Evaluation, Measurement, and Verification Report for Dominion Virginia Power," dated April 1, 2020, filed in Docket No. E-22, Sub 577 (EM&V Report). The report provides the participation and program savings related to the DSM/EE programs for Dominion Virginia Power (DVP) and DENC through December 31, 2019. DVP and DENC are both business operating names of VEPCO.

- 1 • Residential Heat Pump Upgrade Program (Sub 500)
- 2 • Residential Income and Age Qualifying Program (Sub 523)
- 3 • Residential Retail LED Lighting Program (Sub 539)
- 4 • Residential Home Energy Assessment (Sub 567)
- 5 • Residential Efficient Products Marketplace (Sub 568)
- 6 • Residential Appliance Recycling (Sub 569)

7 Non-Residential

- 8 • Commercial Lighting Program (Sub 469)
- 9 • Commercial HVAC Upgrade Program (Sub 467)
- 10 • Non-Residential Energy Audit Program (Sub 495)
- 11 • Non-Residential Duct Testing and Sealing Program (Sub 496)
- 12 • Non-Residential Heating and Cooling Efficiency Program
- 13 (Sub 507)
- 14 • Non-Residential Lighting Systems and Controls Program
- 15 (Sub 508)
- 16 • Non-Residential Window Film Program (Sub 509)
- 17 • Small Business Improvement Program (Sub 538)
- 18 • Non-Residential Prescriptive Program (Sub 543)
- 19 • Non-Residential Window Film (Sub 570)
- 20 • Non-Residential Small Manufacturing (Sub 571)
- 21 • Non-Residential Office (Sub 572)
- 22 • Non-Residential Lighting Systems and Controls (Sub 573)
- 23 • Non-Residential Heating and Cooling Efficiency (Sub 574)

24 The above list encompasses both active and retired programs. Retired
25 programs are still eligible for cost recovery to handle amortized costs that
26 were generated while they were offered to North Carolina customers.

1 **Q. HAVE THERE BEEN ANY NEW OR DISCONTINUED PROGRAMS**
2 **IN THE DENC PORTFOLIO SINCE THE LAST RIDER**
3 **PROCEEDING?**

4 A. No, there have not been any new or discontinued programs since the
5 last rider proceeding.

6 **Q. HAS THE COMPANY CONTINUED TO WORK WITH THE PUBLIC**
7 **STAFF TO EVALUATE THE POSSIBILITY OF OFFERING DSM**
8 **AND EE PROGRAMS ON A NORTH CAROLINA-ONLY BASIS**
9 **WHEN IT PLANS TO CANCEL THEM IN VIRGINIA?**

10 A. Yes.

11 **Q. PLEASE DISCUSS THE AVOIDED COSTS USED TO DETERMINE**
12 **COST EFFECTIVENESS OF THE PORTFOLIO OF PROGRAMS.**

13 A. The Company attests that the underlying avoided cost sources for
14 the eligible programs are consistent with the most currently approved
15 cost recovery and incentive mechanism dated May 22, 2017, in
16 Docket No. E-22, Sub 464 (Mechanism). Paragraph 19 of the
17 Mechanism states that:

18 “For purposes of program approval (new programs or
19 modifications of existing programs submitted pursuant
20 to Commission Rule R8-68), the per kW avoided
21 capacity costs used to calculate cost effectiveness of
22 programs and/or measures shall be determined at the
23 time of DNCP’s files its petition for annual cost recovery
24 pursuant to Rule R8-69 and this Mechanism, using
25 comparable methodologies to those used in the most
26 recently approved biennial avoided cost proceeding.
27 The per kWh avoided energy costs shall be those from

1 the recommended or preferred plan reflected in or
2 underlying the most recently filed integrated resource
3 plan.”

4 Through discovery, the Company stated that it used the
5 recommended Plan B from its 2020 Integrated Resource Plan (IRP)²
6 for the calculations of its avoided capacity and energy costs.

7 The Company noted in its responses that the forecast modeling used
8 in this year’s filing was different, but still comparable to, the modeling
9 used in previous years.

10 **Q. PLEASE EXPLAIN WHY THE FORECAST MODELING WAS**
11 **DIFFERENT THIS YEAR WHEN COMPARED TO PREVIOUS**
12 **YEARS.**

13 A. Through discovery, the Company explained that the 2020 resource
14 expansion plan is being driven by recent legislation in Virginia. The
15 Virginia Clean Economy Act of 2020 (or “VCEA”) was signed into law
16 on April 11, 2020 as part of Virginia’s House Bill 1526 and Senate
17 Bill 851, and includes mandatory Renewable Energy Portfolio
18 Standard (REPS) Program requirement. The VCEA legislation
19 comes after Virginia passed its Grid Transformation and Security Act
20 (GTSA) that was signed into law on March 9, 2018 as part of Virginia
21 Senate Bill 966. GTSA mandates electric utility providers in Virginia,
22 before 2028, propose defined dollar amounts of DSM and EE

² Docket No. E-100, Sub 165.

1 programs for consideration before the Virginia State Corporation
2 Commission. VCEA builds off of the efforts of the GTSA mandates
3 and adds new mandates for required percentages of EE savings for
4 its new REPS program.

5 **Q. DOES THE PUBLIC STAFF HAVE ANY COMMENTS OR**
6 **RECOMMENDATIONS ON THE COMPANY'S APPLICATION AND**
7 **ITS INCLUSION OF THIS RECENT LEGISLATION?**

8 A. No, not at this time. The Public Staff will provide a more in depth
9 response to the Company's application of recent Virginia law, as well
10 as the shift from summer peaking to winter peaking load forecast,
11 and how these impact to the modeling of the IRP, when we file our
12 comments in the current IRP proceeding in Docket No. E-100,
13 Sub 165.

14 Notwithstanding, the Public Staff will comment in this proceeding on
15 two matters:

16 1) The impacts that this model is having on the Company's
17 cost-effectiveness projections of its DSM/EE portfolio,
18 which I will discuss later in my testimony; and

19 2) The modeling used to determine the avoided capacity and
20 energy rates used in this proceeding, which I discuss
21 briefly, but will be discussed in further detail in Public Staff
22 witness John Hinton's testimony.

1 **Q. PLEASE EXPLAIN HOW THE UPDATED FORECAST MODELING**
2 **IS IMPACTING THE PORTFOLIO OF DSM/EE PROGRAMS.**

3 A. Through discovery, the Company stated that it had updated its
4 modeling inputs to the historical penetrations, kW savings, kWh
5 savings, and revised load shapes for the existing portfolio to forecast
6 cost-effectiveness.

7 These inputs were a result from the Company's updated PJM
8 forecast that utilized a summer peak to now a winter peak, changes
9 in underlying fuel and energy prices, and the inclusion of previously
10 mentioned VCEA requirements.

11 The use of a winter peak in forecasting, for purposes of DSM and
12 EE, makes it difficult to produce cost effective savings for any
13 program that produces little, if any, winter peak capacity benefits.

14 **Q. PLEASE DISCUSS THE COST EFFECTIVENESS OF THE**
15 **PORTFOLIO OF PROGRAMS.**

16 A. The testimony and exhibits of DENC witness Deanna Kesler present
17 the Company's analysis of cost effectiveness for each program.
18 Company Exhibit DRK-1, Schedule 2, represents the programs
19 eligible for inclusion in the calculation of the Portfolio Performance
20 Incentive (PPI) in the Vintage 2021 rider, and includes the
21 Company's calculations of the Utility Cost (UC) and the Total
22 Resource Cost (TRC) tests. These data points provide a snapshot of

1 program performance that is expected over the rate period. The data
2 also provide a good comparison of the changes in cost effectiveness
3 from year to year. Schedule 2 also provides the UC test benefits,
4 which are used in the determination of the PPI component of rider
5 rates. The Company's Exhibit DRK-1, Schedule 2, indicates that all
6 programs except for the AC Cycling and Income and Age Qualifying
7 Home Improvement Programs are projected to be cost effective
8 under both the TRC and UC tests.

9 Witness Kesler's Exhibit DRK-1, Schedule 4, represents a more
10 refined ongoing cost-effectiveness of DSM and EE programs as
11 modeled by the 2020 IRP over the remaining life of each program.
12 This perspective provides the basis for determining which programs
13 should continue to be offered as DSM or EE programs eligible for
14 cost recovery pursuant to the Company's DSM/EE Mechanism. The
15 Company's Exhibit DRK-1, Schedule 4, indicates that all programs
16 except for the Small Business Improvement Program are not
17 projected to be cost effective under either the TRC or UC tests.

18 My review of witness Kesler's calculations of cost-effectiveness
19 indicate that the calculations for the Company's Exhibit DRK-1,
20 Schedules 2 and 4, have been performed in accordance with the
21 Mechanism. However, the modeling of program cost-effectiveness is
22 steered by the Company's forecast modeling, which, as mentioned
23 previously, has undergone a significant change in how it is being

1 determined since the last rider proceeding. The Public Staff will
2 comment further on the topic of forecast modeling in its upcoming
3 comments for the IRP proceeding in Docket No. E-100, Sub 165.

4 **Q. HAVE YOU REVIEWED THE 2020 EM&V REPORT FILED BY**
5 **DENC?**

6 A. Yes. The Public Staff contracted the services of GDS Associates,
7 Inc. (GDS), to assist it with review of EM&V. With GDS's assistance,
8 I have reviewed the 2020 EM&V Report. This report evaluated the
9 participation and savings for each DSM and EE program approved
10 in both Virginia and North Carolina through December 31, 2019.

11 I also reviewed previous Commission orders to determine if DENC
12 complied with provisions regarding EM&V contained in those orders.

13 **Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING THE**
14 **COMPANY'S 2020 EM&V REPORT?**

15 A. No. Based on our review of the 2020 EM&V Report, I do not propose
16 any adjustments to the Company's EM&V Report.

17 **Q. HAVE YOU CONFIRMED THAT THE COMPANY'S**
18 **CALCULATIONS INCORPORATE THE VERIFIED SAVINGS OF**
19 **THE 2019 EM&V REPORT?**

20 A. Yes. As in previous cost recovery proceedings, the 2020 EM&V
21 Report provided gross and net savings from the portfolio of programs
22 for the Virginia and North Carolina jurisdictions separately. However,

1 the methodologies and assumptions used in the evaluations of the
2 programs were consistently applied to both jurisdictions. I was able,
3 through a meeting with the Company and additional sampling, to
4 confirm that the information in the 2020 EM&V Report flows into the
5 PPI calculations of both Riders C and CE, and the net lost revenue
6 calculations included in Rider CE. Based on this information and my
7 observations I believe DENC is appropriately incorporating the
8 results of its EM&V efforts into the DSM/EE rider calculations.

9 For purposes of this and previous DSM/EE cost recovery
10 proceedings for DENC, the 2020 EM&V Report data used to true up
11 program savings and participation for Vintage Year 2019 and earlier
12 Vintages are sufficient to consider those Vintage years to be
13 complete for all programs operating in those years.

14 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

15 **A.** Yes.

QUALIFICATIONS AND EXPERIENCE

DAVID M. WILLIAMSON

I am a 2014 graduate of North Carolina State University with a Bachelor of Science Degree in Electrical Engineering. I began my employment with the Public Staff's Electric Division in March of 2015. In August of 2020, the Electric Division merged with the Natural Gas Division to form the Energy Division, where I am a part of the Electric Section - Rates and Energy Services. My current responsibilities within the Energy Division include reviewing applications and making recommendations for certificates of public convenience and necessity of small power producers, master meters, and resale of electric service; reviewing applications and making recommendations on transmission proposals for certificates of environmental compatibility and public convenience and necessity; and also interpreting and applying utility service rules and regulations. Additionally, I am currently serving as a co-chairman on the National Association of State Utility and Consumer Advocates' (NASUCA) DER and EE Committee.

My primary responsibility within the Public Staff is reviewing and making recommendations on DSM/EE filings for initial program approval, program modifications, EM&V evaluations, and on-going program performance of DEC, DEP, and DENC's portfolio of programs. I have filed testimony in various DEC, DEP, and DENC Demand Side Management/Energy Efficiency rider proceedings, as well as recent general rate case proceedings.