



SCHOOL of LAW

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March 26, 2024

VIA ELECTRONIC FILING

Mr. Bernard Logan, Clerk
c/o Document Control Center
State Corporation Commission of Virginia
Tyler Building - First Floor
1300 East Main Street
Richmond, Virginia 23219

RE: Application of Va. & Elec. Power Co. For approval of its 2023 DSM Update pursuant to § 56-585.1 A 5 of the Code of Virginia

Case No. PUR-2023-00217

Dear Mr. Logan:

Enclosed for filing in the above-captioned proceeding is the **Direct Testimony of Chelsea Harnish on behalf of the Virginia Energy Efficiency Council (“VAEEC”)**. Please note that Ms. Harnish’s testimony consists of a one-page summary, twenty (20) pages of questions and answers, and seven (7) attachments, labeled CH-1 through CH-7. The entirety of her testimony is being filed via the Commission’s electronic document filing system and is being filed in a public version only.

If you should have any questions regarding this filing, please contact me at (434) 924-4776, or via email at cjaffe@law.virginia.edu.

Regards,

Cale Jaffe
Sebastian van Bastelaer
Counsel of Record, Virginia Energy Efficiency Council

cc: Parties on Service List
Commission Staff

Witness Direct Testimony Summary

Witness: Chelsea Harnish
Title: Executive Director of the Virginia Energy Efficiency Council
Re: Dominion 2023 DSM Update, PUR-2023-00217
Date: March 26, 2024

Summary:

Chelsea Harnish, Executive Director of the Virginia Energy Efficiency Council (“VAEEC”), offers testimony in support of the VAEEC’s position in this docket.

The VAEEC’s members include energy efficiency businesses, universities, nonprofits, local governments, and electric utilities. The organization’s goal is to ensure that energy efficiency is properly recognized as an integral part of Virginia’s economy and clean energy future.

Ms. Harnish offers the VAEEC’s support for the Company’s proposed Phase XII application, while also making recommendations for strengthening the Company’s efforts to meet targets under the Virginia Clean Economy Act (“VCEA”). Ms. Harnish’s testimony is broken down into four main sections:

1. Support for the Phase XII Filing as Necessary but not Sufficient to Meet VCEA targets;
2. Analysis of the Long-Term Plan, Project Management Report;
3. Review of Cost-Effectiveness Test Results; and
4. Discussion of Net/Gross Savings Metrics.

First, on the Company’s new, Phase XII programs, Ms. Harnish offers recommendations on how to improve the New Residential Home Construction Program, focusing on the applicability of Energy Star certification, version 3.1. She also expresses concern that the Company will likely not meet the VCEA’s statutorily imposed targets, and that this Phase XII filing represents the last opportunity for the Company to propose new programs before the end of 2025.

Second, on the Company’s Long-Term Plan, Management Plan Report, Ms. Harnish asks the Company to provide quantifiable metrics to measure its progress. She notes that useful data was provided by Company consultants (Honeywell and West Cary Group) during a recent stakeholder group meeting.

Third, on the cost-effectiveness tests, Ms. Harnish offers support for the framework and process contained in the National Energy Screening Project’s *National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources* (“NSPM”).

Finally, on Net/Gross Savings Metrics, Ms. Harnish insists the Commission should rely on the appropriate definitions for “net” and “gross” as cited in industry standard reference manuals, such as the U.S. Department of Energy’s Uniform Methods Project protocols.

1 **Q. Please summarize your professional and educational expertise with respect to**
2 **energy policy.**

3 A. I have been Executive Director at the VAEEC since November of 2015. Prior to joining
4 the VAEEC, I worked for the Virginia Conservation Network on climate and energy policy, with
5 a special focus on energy policy matters before the General Assembly. I have a master's degree
6 in marine science from Boston University and an undergraduate degree in biology from
7 University of South Carolina. A copy of my resume is included with this testimony as
8 **Attachment CH-1.**

9

10 **Q. Why did the VAEEC elect to intervene in this proceeding?**

11 A. The VAEEC's members include energy efficiency businesses, universities, nonprofits,
12 local governments, and electric utilities.¹ These members recognize the incredible value that
13 cost-effective, energy-efficiency programs can provide to all ratepayers—both participants in the
14 programs and non-participants alike. Our goal is to ensure that energy efficiency is properly
15 recognized as an integral part of Virginia's economy and clean energy future. Together with our
16 members, the VAEEC is identifying cost-effective, energy-efficiency solutions that improve the
17 quality of life in our work and home environments.

18

19 **Q. Has the VAEEC participated in previous DSM dockets involving Dominion Energy?**

20 A. Yes. The VAEEC has intervened as a participant in multiple DSM proceedings involving
21 the Company prior to the current docket: PUE-2016-00111; PUR-2017-00129; PUR-2018-

¹ One of the VAEEC's member utilities is Dominion Energy Virginia, and Company witness Michael Hubbard is a member of the VAEEC's Board of Directors. However, neither the Company nor Mr. Hubbard have had any involvement with the preparation of this testimony, and Mr. Hubbard has been screened off of all discussions with the VAEEC's Board that relate in any way to the VAEEC's participation in this proceeding.

1 00168; PUR-2019-00201; PUR-2020-00156, PUR-2021-00247, and PUR-2022-00210. The
2 VAEEC has also participated in multiple efficiency dockets for Appalachian Power Company.

3

4 **Q. Did you personally file testimony as a witness in any of those earlier dockets?**

5 A. Yes. I sponsored testimony in support of the VAEEC’s position in PUE-2016-00111,
6 PUR-2017-00129, PUR-2021-00247 and PUR-2022-00210.

7

8

OVERVIEW OF RECOMMENDATIONS

9 **Q. Have you had the opportunity to review Dominion’s initial filing in this docket?**

10 A. Yes, I have.

11

12 **Q. Please summarize your understanding of the Company’s application.**

13 A. The Company’s Application seeks approval of four new DSM programs: two Residential
14 Smart Thermostat Programs (one energy efficiency and one demand-response), one Residential
15 New Construction Program, and one Non-residential New Construction Program. It also requests
16 to modify two Phase VIII Programs: the Non-Residential Midstream Energy Efficiency Products
17 and the Small Business Improvement Enhanced Programs.

18

19 **Q. Overall, do you support the Company’s proposals?**

20 A. The VAEEC fully supports the programs and alterations proposed by the Company. The
21 proposed programs are necessary as the Company continues to make progress towards the
22 efficiency targets imposed on the Company by the Virginia Clean Economy Act (“VCEA”).

23

1 **Q. How is your testimony structured?**

2 A. My testimony provides an overview of the position of the Virginia Energy Efficiency
3 Council in this docket. My testimony is broken down into the following three main sections:

- 4 1. Support for the Phase XII Filing as Necessary but not Sufficient to Meet VCEA targets;
- 5 2. Analysis of the Long-Term Plan, Project Management Report
- 6 3. Review of Cost-Effectiveness Test Results; and
- 7 4. Discussion of Net/Gross Savings Metrics.

8

9 THE PHASE XII FILING IS NECESSARY BUT NOT SUFFICIENT TO MEET

10 STATUTORY ENERGY EFFICIENCY TARGETS

11 **Q. Please describe your understanding of the VCEA energy efficiency savings targets.**

12 A. The Virginia Clean Economy Act amended Va. Code § 56-596.2 B 2 and requires the
13 Company to meet a series of savings targets, year by year.² Relative to the Company's average
14 annual energy jurisdictional retail sales in 2019, the Company must achieve at least 1.25%
15 energy savings through the implementation of DSM programs in 2022; 2.5% in 2023; 3.75% in
16 2024 and 5% in 2025.³ After 2025, the Commission is to establish new targets for successive
17 three-year periods.

18

19

² VA. CODE ANN. § 56-596.2 B 2.

³ *Id.*

1 **Q. Please describe the programs the Company is seeking to launch or modify.**

2 A. The Residential Smart Thermostat Purchase Program offers financial incentives to
3 purchase smart thermostats, which adjust heating and cooling based on learned behaviors from
4 occupants, maintaining a more consistent temperature and reducing overall energy consumption.⁴

5 The proposed New Construction Programs will provide incentives to build more energy-
6 efficient structures, while encouraging builder participation and promoting increased savings.⁵

7 The Residential New Construction program incentivizes homebuilders to build residences to
8 meet either the prior Energy Star certification (version 3.1), or to build up to a new level of
9 certification with Energy Star Next Gen. The proposed Non-Residential New Construction
10 program provides energy-efficient upgrades to three different building types, including
11 commercial and industrial buildings as well as data centers.

12 The Phase XII application also seeks to amend existing programs, allowing for increased
13 customer participation and reallocation of financial resources. The Company is proposing to lift a
14 cap on the number of locations a business could have in order to participate in the Phase VIII
15 Small Business Improvement Enhanced Program, which has prevented certain customers from
16 participating. To better align with customer feedback and demand, Dominion is also seeking
17 approval to add additional measures, such as ice makers and dishwashers, to the list of qualifying
18 appliances in the Phase VIII Non-Energy Efficiency Midstream Program.⁶

19
20

⁴ See CAROLYN AARISH AND MITT JONES, SMART THERMOSTATS AND THE TRIPLE BOTTOM LINE: PEOPLE, PLANET, AND PROFITS, (2016), available at https://www.aceee.org/files/proceedings/2016/data/papers/6_953.pdf; see also HOW DO SMART THERMOSTATS SAVE YOU MONEY? (Aug. 8, 2023), available at www.trane.com/residential/en/resources/blog/smart-thermostats-save-money/

⁵ *Application of Virginia Electric and Power Company for approval of its 2023 DSM Update*, at 8-9, Case No. PUR-2023-00217 (filed Dec. 11, 2023).

⁶ *Id.* at 11-12.

1 **Q. Are there any other benefits that the Company’s Phase XII filing provides?**

2 A. Yes. The Residential Smart Thermostat Demand Response Program, which resembles a
3 similar Phase VIII Program, would allow the Company to join with participating consumers to
4 reduce energy usage during times of peak demand.⁷ The Company projects that nearly 100,000
5 customers will participate between 2025 and 2029.⁸

6

7 **Q. Notwithstanding the VAEEEC’s overall support for the Company’s Phase XII filing,**
8 **do you have any recommendations for how it might be improved?**

9 A. Yes. I have specific concerns about the New Residential Home Construction Program.
10 The program incentivizes builders to build to an outdated version of Energy Star certification.
11 The EPA released version 3.2 in the spring of 2022 to align with the 2021 International Energy
12 Conservation Codes—as well as with federal rebates and tax incentives offered through the
13 Inflation Reduction Act (“IRA”).⁹ While version 3.1 will still be applicable to homes permitted
14 after January 1, 2025 in Virginia, homebuilders planning to utilize the federal 45L tax credits of
15 the IRA must build to the newer standard, which are the requirements in version 3.2.¹⁰

16

17

⁷ Direct Testimony of Michael T. Hubbard, Schedule 1 at 14, Schedule 3 at 6, *Application of Virginia Electric and Power Company for approval of its 2023 DSM Update*, Case No. PUR-2023-00217 (filed Dec. 11, 2023).

⁸ *Id.*, Schedule 3 at 6.

⁹ See ENERGY STAR SINGLE-FAMILY NEW HOMES NATIONAL PROGRAM REQUIREMENTS, VERSION 3.2 (2022), available at

https://www.energystar.gov/sites/default/files/asset/document/National%20Program%20Requirements%20Version%203.2_Rev%2012.pdf.

¹⁰ ENERGY STAR RESIDENTIAL NEW CONSTRUCTION REQUIREMENTS, available at

https://www.energystar.gov/partner_resources/residential_new/homes_prog_reqs/national_page (last visited March 26, 2024).

1 **Q. So is your concern that version 3.1 is out-of-date?**

2 A. It will be. Since the earliest date that the Phase XII programs could launch is in early
3 2025, this program should adhere to the most up-to-date Energy Star certification version. If, for
4 some reason, that is not feasible then the Company should at least ensure homebuilders who
5 build to 3.2 specifications can still participate in the New Residential Home Construction
6 program. According to IRS Notification 2023-65, homes built to Energy Star 3.2 also meet the
7 program requirements for 3.1.¹¹ At a minimum, the Company should be directed to follow the
8 same guidelines.

9

10 **Q. Do you have broader concerns about the Company's Phase XII portfolio?**

11 A. Yes. As evidenced by Company witness David F. Walker's testimony (page 13, Tables 1
12 and 2), the Company will likely not meet the VCEA's statutorily imposed targets for energy
13 efficiency savings for at least 2024 and 2025. Since this filing is the last opportunity for the
14 Company to propose new programs before the end of 2025, it will need to deploy other
15 resources, including: (1) increasing participation rates in existing programs; (2) utilizing
16 Commission-approved, portfolio-level marketing funds to increase customer awareness; and (3)
17 other opportunities I addressed in the Phase XI docket in the Direct Testimony of Chelsea
18 Harnish, *Application of Virginia Electric and Power Company for approval of its 2022 DSM*
19 *Update pursuant to § 56-585.1A 5 of the Code of Virginia* (filed March 29, 2023). Among other
20 recommendations, my prior testimony discussed why the Company should do more to leverage
21 the functionalities of Advanced Metering Infrastructure, or AMI.

22

¹¹ Internal Revenue Service Notice 2023-65, available at <https://www.irs.gov/pub/irs-drop/n-23-65.pdf> (last visited March 26, 2024).

1 **Q. Are there other near-term fixes that are necessary to the Company’s**
2 **implementation of energy-efficiency programs?**

3 A. Yes. It is also important for the Company to launch all of its previously approved, Phase
4 XI programs immediately. In response to an interrogatory from Appalachian Voices, Second Set,
5 Question 15 (included with this testimony as **Attachment CH-2**), Company Witness Hubbard
6 provided a table highlighting that over half of last year’s programs still had not launched as of
7 February 13, 2024. This delay is despite the Company pledging that it anticipated launching “all
8 approved Phase XI programs ... in the first quarter of 2024.”¹² It is critical that the Company
9 launch the remaining Phase XI programs in order to start accumulating energy savings that are
10 needed to help meet the Company’s VCEA savings targets.

11
12 **Q. Do you have other suggestions on what the Company could do to reach its energy-**
13 **savings goals?**

14 A. Yes. The Company should continue utilizing the stakeholder group to build out
15 implementation plans for the four key recommendations from the Hearing Examiner’s Report.¹³
16 Due to time constraints, the stakeholder group was only able to meet once between the issuance
17 of the Final Order in PUR-2022-00210 and when the Company submitted the current application
18 for Phase XII. Nevertheless, the Company should take these next few months to develop a plan
19 of action to implement the improvements flagged in the Senior Hearing Examiner’s report from
20 Phase XI. More is needed in order to increase energy savings for the next two years.

¹² Direct Testimony of Michael T. Hubbard, at 17, lines 15-16, *Application of Virginia Electric and Power Company for approval of its 2023 DSM Update*, Case No. PUR-2023-00217 (filed Dec. 11, 2023).

¹³ See Final Order, at 7-9, *Application of Virginia Electric and Power Company for approval of its 2022 DSM Update*, Case No. PUR-2022-00210 (entered Aug. 4, 2023) (summarizing the Senior Hearing Examiner’s findings and recommendations and concluding that they “are supported by law and the evidence, have a rational basis, and are adopted herein ...”).

1

2 **Q. You state that the Company’s DSM measures are necessary to meet the Virginia**
3 **Clean Economy Act’s statutory targets by 2025. Are these measures sufficient, in the view**
4 **of the VAEEC?**

5 A. No, they are not. As Company witness David Walker’s testimony shows (page 13, Tables
6 1 and 2), the Company is at risk of falling seriously behind in its energy efficiency efforts.
7 Depending on the metric used, the Company estimates its savings in 2024 will be either 3.2% or
8 2.3%, short of its goal of 3.75%. In 2025, the Company estimates its savings will be either 2.9%
9 or 3.7% out of the mandated 5%.¹⁴

10

11 **Q. Given the Company’s projection that it will fall short of the targets, is it the position**
12 **of the VAEEC that these targets ought to be adjusted downward?**

13 A. No. We believe that meeting the targets that the General Assembly adopted and that were
14 signed into law is crucial to promoting an energy-efficient economy. Continuing to build on the
15 statutory targets will provide a variety of benefits to Virginians by keeping our economy strong,
16 combatting climate change, and providing a safe and healthy environment in which Virginians
17 can live and work. As the VAEEC commented in last year’s proceedings, there are still several
18 unexplored or underutilized means by which the Company could meet its targets, including
19 leveraging Advanced Metering Infrastructure, supporting dual-fuel customers, fully considering

¹⁴ Direct Testimony of David F.Walker, Schedule 3 at 1, *Application of Virginia Electric and Power Company for approval of its 2023 DSM Update*, Case No. PUR-2023-00217 (filed Dec. 11, 2023).

1 the impact of the Inflation Reduction Act, and accounting for Non-Energy Benefits (including
2 the Social Cost of Carbon).¹⁵

3

4 LONG-TERM PLAN MANAGEMENT PLAN

5 **Q: Did you have a chance to review the Company’s Long-Term Plan (“LTP”)**
6 **Management Plan Report?**

7 A: Yes.

8

9 **Q: Do you have any comments on the Report?**

10 A: Yes. It was helpful to glean some general information about the tasks in the LTP that the
11 Company has completed, and which tasks the Company anticipates completing soon. However,
12 the details of how these tasks are helping the Company meet its VCEA targets remain unclear. It
13 is also difficult to evaluate Mr. Walker’s statement (page 14, line 20) that the Company has made
14 “considerable progress” in implementing the LTP, given the lack of quantifiable metrics for that
15 claim.¹⁶ For example, looking at the first recommendation under “Short-Term
16 Recommendations” of the LTP Management Plan Report (“MPR”), there is a long list of vaguely
17 worded tasks such as:

- 18 ● “Completed an evaluation of opportunities to improve search engine optimization...”
- 19 ● “Launched an SEM general awareness campaign in July 2023.”
- 20 ● “Completed a peer utility landscape evaluation to benchmark industry best practices.”
- 21 ● “Developed and launched an initial general awareness marketing and outreach campaign
- 22 focused on ongoing SEM and launched a cross-channel campaign in October 2023
- 23 focused on Energy Awareness Month.”

¹⁵ Comments of the Virginia Energy Efficiency Council to the Hearing Examiner’s Report, at 3-6, *Application of Virginia Electric and Power Company for approval of its 2022 DSM Update*, Case No. PUR-2022-00210 (filed June 28, 2023).

¹⁶ Direct Testimony of M. Fry at Schedule 1 at 4, 15, *Application of Virginia Electric and Power Company for approval of its 2023 DSM Update*, Case No. PUR-2023-00217 (filed Dec. 11, 2023).

- 1 ● “Held Vendor Summits with WCG, implementation vendors, and DEV team to provide
2 ongoing coordination and information sharing to ensure that we maximize opportunities
3 to inform customers about the range of energy efficiency options available through the
4 general awareness campaign.”¹⁷
5

6 This language leaves numerous unanswered questions. What were the outcomes of these
7 completed tasks? What came out of the evaluation to improve search engine optimization? What
8 useful results came from benchmarking industry best practices when evaluating peer utilities?
9 What outcomes have come from the Vendor Summits? The tasks themselves are not the end
10 goal, but rather a means to an end. The Commission and stakeholders need to be able to evaluate
11 how (or whether) these tasks are helping the Company achieve its VCEA targets.
12

13 **Q. Has the VAEEC or other parties in this proceeding sought answers on this matter?**

14 A. Yes. Several respondents, including the VAEEC, requested more information on these
15 specifics, but the Company objected for various reasons, including objecting to the word,
16 “progress” as “vague” in response to the Commission Staff, Fifth Set of Interrogatories, Question
17 31(b) (included with this testimony as **Attachment CH-3**). Of course, if the term “progress” is
18 vague when asked by Commission Staff or a Respondent, then it should also be considered
19 “vague” when used to support a claim that the Company has made “considerable progress” in its
20 efforts to increase overall awareness of DSM programs to customers.
21

22 **Q. Has the Company elsewhere provided helpful data regarding their progress?**

23 A. Yes. Despite the vagueness in the LTP Management Plan Report, and stated objections
24 by the Company when asked to provide quantifiable metrics, the Company did provide the

¹⁷ *Id.*, Schedule 1 at 4-5.

1 following data points in response to Appalachian Voices Interrogatories, Set 2, Question 19,
2 which is included with this testimony as **Attachment CH-4**:

- 3 ● SEM Campaigns: 13.42% click-through rate, which, according to the Company is five
4 times higher than the industry benchmark;
- 5 ● Energy Awareness Month campaigns: during a three-week period last October, the
6 Company marketed its Virtual Energy Audit campaign, which resulted in significant
7 increases in participation when compared to other timeframes;
- 8 ● The Company also saw substantial growth in traffic to its websites through various
9 marketing efforts, including total traffic increasing 25% from 2023 as compared to 2022,
10 and that is just with six to seven months of active marketing activity.

11
12 Furthermore, at the stakeholder meeting held on March 22, 2024, which I attended,
13 Company consultants from Honeywell and West Cary Group provided even more data sets,
14 showing that the Company is on a positive trajectory to increasing customer awareness. The
15 agenda and other materials from that stakeholder meeting are included with this testimony as
16 **Attachment CH-5**. This progress will hopefully translate to increased energy savings for the
17 Company’s existing programs—it just needs to be communicated in greater detail to stakeholders
18 and the Commission.

19
20 **Q. Do you believe the Commission should impose requirements on future reports on**
21 **the progress of the Long-Term Plan?**

22 A. Yes. The Commission should require the Company to provide quantifiable data sets in
23 future LTP Management Plan Reports. While the Company has objected to providing further
24 details in both last year’s case as well as in interrogatories in the current case, discussions at the
25 last stakeholder meeting on March 22 included reference to monthly performance data reports
26 that West Cary Group provides to the Company. If what I learned at the stakeholder meeting is
27 correct, then it would seem that the data is readily available to include in future reports. The

1 bottom line is that stakeholders need more details to understand the Company’s claim on making
2 “considerable progress.”

3

4

COST-EFFECTIVENESS TESTS

5 **Q. How is the cost-effectiveness of DSM programs currently measured?**

6 A. Virginia law requires that utility DSM programs pass three out of four cost-effectiveness
7 tests.¹⁸ This requirement is unusually restrictive, as only two other states require DSM programs
8 to pass multiple cost-effectiveness tests.¹⁹

9 The four tests that the Commission relies upon are the Participant Test, the Utility Cost
10 Test (“UCT”), the Total Resource Cost (“TRC”) Test and the Ratepayer Impact Measure (“RIM”
11 or Non-Participant) Test.²⁰ A score of over 1.0 on a given test indicates that the measure
12 “passes”—that the benefits outweigh the costs.²¹

13 The Participant Test weighs the quantifiable costs and benefits for those who directly
14 participate in a given program. The Utility Cost Test focuses on the costs to the utility when
15 compared to other options, such as purchasing power off of the grid. The Total Resource Cost
16 Test combines the first two by comparing the entirety of those costs incurred and benefits
17 received by both participants and the utility. Finally, the Ratepayer Impact Measure Test, which
18 is also sometimes called the Non-Participant Test, is discussed by Company witness Rachel L.
19 Hagerman.²² This test, rarely used by other jurisdictions around the country, seeks to determine

¹⁸ VA. CODE ANN. § 56-576. Exceptions to this requirement include programs aimed at providing energy savings for low-income and elderly citizens.

¹⁹ Direct Testimony of Chelsea Harnish, at 24, *Petition of Virginia Electric and Power Company for approval of its 2021 DSM Update*, Case No. PUR-2021-00247 (filed March 22, 2022).

²⁰ VA. CODE § 56-576.

²¹ Direct Testimony of Rachel L. Hagerman at 8, *Application of Virginia Electric and Power Company for approval of its 2023 DSM Update*, Case No. PUR-2023-00217 (filed Dec. 11, 2023).

²² *Id.*

1 the costs and benefits to those ratepayers who are choosing *not* to participate in an efficiency
2 program.²³

3

4 **Q: Are there any concerns with these traditional cost-effectiveness tests?**

5 A: The traditional cost tests were designed in the 1980s before many of today's
6 technological advancements in energy-efficient products and grid modernization upgrades. Also,
7 the tests can vary widely from state-to-state, utility-to-utility, and program-to-program.

8 Historically, the tests have been heavily weighted with cost inputs without consideration of
9 benefits such as non-energy benefits and utility system benefits.²⁴ Additionally, the RIM test is
10 not an appropriate regulatory tool for cost-effectiveness analysis because its purpose is to
11 analyze rate impacts for non-participants without comparing those impacts to other scenarios
12 (*e.g.*, increased costs for all ratepayers, including non-participants, if a utility purchases more
13 energy from independent power providers in lieu of investing in energy-efficiency programs).

14

15 **Q. Are you aware of any new legislation that would address cost-benefit tests in**
16 **proceedings such as the present one?**

17 A. Yes. House Bill 746 (introduced by Delegate Webert) and Senate Bill 565 (introduced by
18 Senator Deeds), are identical bills that would require the Commission to adopt a single cost-
19 effectiveness test for use in evaluating energy efficiency programs. This test would follow the
20 framework and process contained in the National Energy Screening Project's *National Standard*

²³ DAN YORK ET AL., NAT'L SURVEY OF STATE POLICIES AND PRACTICES FOR ENERGY EFFICIENCY PROGRAM EVALUATION at 14 (2020); available at <https://www.aceee.org/sites/default/files/pdfs/u2009.pdf>; NAT'L ENERGY SCREENING PROJECT, NAT'L STANDARD PRACTICE MANUAL FOR BENEFIT-COST ANALYSIS OF DISTRIBUTED ENERGY RESOURCES, at 2-8 (Aug. 2020).

²⁴ PASSING THE TEST: HOW ARE RESIDENTIAL EFFICIENCY COST EFFECTIVENESS TESTS CHANGING? (Feb. 11, 2021), available at <https://www.energy.gov/eere/better-buildings-residential-network/articles/passing-test-how-are-residential-efficiency-cost>.

1 *Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources* (“NSPM”).²⁵ The
2 NSPM serves as an objective, technology-neutral reference document for regulators, utilities, and
3 other stakeholders to assess the impacts of a utility’s energy-efficiency investments. At the time
4 of this filing, both bills have passed the Senate and the House, and await the Governor’s action.

5
6 **Q. Has the VAEEC taken a position with respect to these bills?**

7 A. Yes, the VAEEC supported both bills during the most recent legislative session and is
8 hopeful that the Governor will sign them into law. As the VAEEC and other stakeholders
9 concluded at a October 23, 2023 Dominion Energy Stakeholders group meeting, adopting the
10 NSPM would properly account for Non-Energy Benefits and do away with Virginia’s
11 “idiosyncratic, outdated cost test regime.”²⁶ Adopting a new cost-effectiveness test following the
12 guiding principles of the NSPM would ensure that all investor-owned utilities in Virginia are
13 using the same inputs in a transparent and balanced analysis that is forward-looking and aligns
14 with the energy policy goals of the Commonwealth.

15
16 **Q: Had the NSPM been discussed in proceedings or in the stakeholder process prior to
17 this legislation being presented to the General Assembly?**

18 A: Yes to both. My testimony last year referenced the NSPM and its benefits. In addition, a
19 presentation was given to the stakeholder group on October 23, 2023 from an advisory
20 committee member of the NSPM, Chris Neme, with Energy Futures Group. In that presentation,

²⁵ VA. H.B. 746, available at <https://lis.virginia.gov/cgi-bin/legp604.exe?241+ful+HB746H1> (last visited March 26, 2024); VA. S.B. 565, available at <https://lis.virginia.gov/cgi-bin/legp604.exe?241+ful+SB565> (last visited March 26, 2024).

²⁶ See “DEV DSM Final Order Recommendations,” (included with Direct Testimony of David F. Walker, Schedule 2, Appendix B, at 13, *Application of Virginia Electric and Power Company for approval of its 2023 DSM Update*, Case No. PUR-2023-00217 (filed Dec. 11, 2023).

1 Mr. Neme explained his concerns with the traditional cost tests and addressed the cost-
2 effectiveness questions from last year’s Final Order. Additionally, several stakeholders who
3 participated in the Company’s stakeholder survey noted the value of the NSPM. A summary of
4 stakeholder input, taken from Schedule 2, Appendix B, to Mr. Walker’s Direct Testimony, is
5 included with my testimony as **Attachment CH-6** (providing responses to survey Question 7 on
6 the four cost-effectiveness tests).

7
8 **Q. In your testimony in the 2022 Phase XI DSM Update proceedings, you urged the**
9 **Company to take into account the financial incentives provided under the Inflation**
10 **Reduction Act when conducting cost-benefit analyses. Why is this important?**

11 A. As I stated last year, the Inflation Reduction Act (“IRA” or “the Act”) will provide \$9
12 billion to states for residential energy efficiency and electrification projects.²⁷ This and other
13 funding (from other IRA provisions and separate statutes such as the Bipartisan Infrastructure
14 Law) present “significant funding opportunities that could supplement energy efficiency
15 programs.”²⁸ I urged the Company to take into account these sources of funding in cost-
16 effectiveness analyses. Simply put, the more that the Company is able to leverage the
17 availability of these federal funds, the lower the costs to implementing energy-efficiency
18 programs will be for Dominion ratepayers.

19

20

²⁷ Direct Testimony of Chelsea Harnish at 19, *Application of Virginia Electric and Power Company for approval of its 2022 DSM Update*, Case No. No. PUR-2022-00210 (filed March 29, 2023).

²⁸ *Id.* at 23.

1 **Q. In the Final Order in the 2022 DSM Update docket, the Commission approved**
2 **Hearing Examiner Thomas’ recommendation to “require a report from the Company on**
3 **these issues in next year’s DSM case.”²⁹ Would it be helpful to have this report in this**
4 **docket?**

5 A. Yes, it would.

6

7 DISCUSSION OF NET/GROSS SAVINGS METRICS

8 **Q. Does the VAEEC have a position on whether net or gross savings should be used to**
9 **calculate energy savings towards the targets in the VCEA?**

10 A. No. The VAEEC does not take a position on the issue, although the organization would
11 like to offer a few observations that may be helpful to the Commission in navigating the legal
12 analyses. First, and most obviously, the Commission must determine the Company’s compliance
13 with the VCEA by looking to “total annual energy savings.”³⁰ This statutory term is defined
14 elsewhere as “the total combined kilowatt-hour savings achieved by electric utility energy
15 efficiency and demand response programs and measures.”³¹ In other words, “total annual energy
16 savings” means savings from measures installed in a given program year as well as savings still
17 accruing from measures installed in previous years. As long as a program or measure (old or
18 new) is actively delivering savings in a given year, it can be counted toward that year’s target
19 under the law.

20

21

²⁹ See Final Order, at 7-9, Application of Virginia Electric and Power Company for approval of its 2022 DSM Update, Case No. PUR-2020-00217 (entered Aug. 4, 2023).

³⁰ VA. CODE § 56-596.2 B.

³¹ VA. CODE § 56-576.

1 **Q. Can you briefly explain the difference between the two metrics?**

2 A. Yes. The gross savings metric measures “the difference in energy consumption with the
3 energy-efficiency measures promoted by the program in place versus what consumption would
4 have been without those measures in place.”³² In simple terms, it takes energy savings
5 attributable to a particular *measure*—for instance, by comparing the energy usage of an ordinary
6 dishwasher with the energy usage of the high-efficiency dishwasher that replaced it.

7 The net savings metric, on the other hand subtracts the number of free riders from the
8 savings, since such persons would have taken the energy-saving measures on their own without
9 the existence of a utility-sponsored program. The net savings metric may also take into account
10 the energy savings benefits accomplished through spillover and market effects. For instance, a
11 person who hears about an energy-efficient lightbulb program, who is not officially eligible to
12 participate, may go out and purchase such a lightbulb anyway. Or a person that sees a neighbor
13 installing a new smart thermostat may, even without buying one themselves, decide to be more
14 mindful about their own energy consumption.³³ Because of these factors and the difficulty of
15 identifying free riders and spillover participants, savings may be more complicated to calculate
16 under the net approach.

17

18 **Q. Have you read Dominion’s Legal Memorandum of December 11, 2023, regarding**
19 **the use of net and gross savings metrics?**

20 A. I have.

21

³² DANIEL M. VIOLETTE AND PAMELA RATHBUN, ESTIMATING NET SAVINGS—COMMON PRACTICES, THE UNIFORM METHODS PROJECT: METHODS FOR DETERMINING ENERGY EFFICIENCY SAVINGS FOR SPECIFIC MEASURES at 3 (2017), available at <https://www.nrel.gov/docs/fy17osti/68578.pdf>.

³³ *Id.* at 3-6.

1 **Q. Do you have any comments on the Legal Memorandum, the Company filed as part**
2 **of its application?**

3 A. Yes. While the VAEEC does not take an official position on which metric should be
4 adopted, I do not agree with the definitions of “net savings” and “gross savings” as stated in the
5 Company’s Legal Memorandum. The Company provides the following explanation to define
6 gross and net savings:

7
8 “Simply stated, gross savings are the savings from the energy efficiency measure (e.g.,
9 savings from a high efficiency light bulb or air conditioner upgrade) while net savings are
10 the savings from the energy efficiency program (e.g., the Residential Home Energy
11 Assessment Program or Non-residential Heating and Cooling Efficiency Program).”³⁴

12
13 These are not industry-recognized definitions for “net” and “gross.” The most-cited
14 resources on calculating energy savings follow the definition provided by the EPA’s *Guidebook*
15 *for Energy Efficiency Evaluation, Measurement, and Verification*, which defines gross savings as
16 “the difference in energy consumption with an EE project or EE measure in place versus the
17 baseline consumption without the project or measure in place” and “net savings (for an EE
18 program) [as] the difference in energy consumption with an EE program in place versus the
19 consumption without the program in place.”³⁵

³⁴ Legal Memorandum of Virginia Electric and Power Company, at 5, *Application of Virginia Electric and Power Company for approval of its 2023 DSM Update*, Case No. PUR-2023-00217 (filed Dec. 11, 2023).

³⁵ GUIDEBOOK FOR ENERGY EFFICIENCY EVALUATION, MEASUREMENT, AND VERIFICATION: A RESOURCE FOR STATE, LOCAL AND TRIBAL AIR & ENERGY OFFICIALS at 13, available at https://www.epa.gov/sites/default/files/2019-06/documents/guidebook_for_energy_efficiency_evaluation_measurement_verification.pdf.

1 In fact, Dominion’s own 2023 EM&V Report, Appendix E, refers to technical reference
2 materials that use definitions in line with industry standards, such as the U.S. Department of
3 Energy’s Uniform Methods Project, an excerpt of which is included with this testimony as
4 **Attachment CH-7** (noting that the U.S. Department of Energy’s “Uniform Methods Project
5 protocols provide standardized, common-practice M&V methods for determining gross energy
6 savings for many of the most common residential and commercial measures and programs
7 offered by administrators of energy efficiency programs in North America for utility customers.
8 The UMP also includes cross-cutting protocols for topics such as net savings determination...”).
9 Such definitions do not align with those outlined in the Company’s Legal Memorandum.
10 Therefore, when considering which metric to use to calculate energy savings, the Commission
11 should rely on the appropriate definitions for “net” and “gross” as cited in industry standard
12 reference manuals.

13

14 **Q. Does this conclude your direct testimony?**

15 A. Yes.

16

ATTACHMENT CH-1:

Resume of Chelsea Harnish

Chelsea Harnish

Attachment CH-1

409 E. Main St. • Richmond, VA 23219 • Phone: 804.457.8619 • E-Mail: Chelsea@vaeec.org

Experience

- Executive Director, Virginia Energy Efficiency Council November 2015- present
- Work with membership and stakeholders to fulfill the organization's mission through our programmatic work
 - Lead the organization's regulatory and legislative work
 - Manage budgets and contracts
- Policy and Campaigns Manager, Climate and Energy, Virginia Conservation Network July 2012-October 2015
- Facilitated monthly meetings and coordinate legislative agenda for work group during general assembly sessions
 - Participated in revising state energy plan through four-year appointment on the Governor's Energy Council
 - Wrote and edited whitepapers on energy policy for annual briefing book for state legislators and their staff
- Project Management Consultant, Virginia Conservation Network February 2012-June 2012
- Coordinated a press conference to release the report, *Potential Economic Impacts of Renewable Energy in Virginia*
 - Set up a webinar for legislators to showcase report findings
 - Worked with researchers and stakeholders to finalize the report for public release
- Virginia Policy Coordinator, Chesapeake Climate Action Network September 2010-February 2012
- Established the legislative agenda for Virginia staff
 - Collaborated with coalition partners on federal and state environmental policy initiatives
 - Lobbied General Assembly on priority energy legislation
- Regional Campaign Coordinator, Chesapeake Climate Action Network January 2009-August 2010
- Developed and implemented campaign strategy for federal, state and local issues
 - Lobbied General Assembly on priority legislation with emphasis on renewable energy and energy efficiency
 - Built grassroots base throughout Virginia to support our work
- Development Associate, Clean Power Now May 2008-December 2008
- Wrote grant applications for submission to foundations
 - Assisted with direct mail appeals to our membership
 - Planned and executed summer house parties
- Membership Coordinator, Clean Power Now October 2005-May 2008
- Coordinated with Executive Director to develop campaign strategy promoting Cape Wind
 - Handled all communication with members including e-newsletters and campaign materials

Education

- Boston University September 2004
Master of Science in Biology with an emphasis in Marine Ecology and Conservation
- University of South Carolina May 2000
Bachelor of Science in Biology with an emphasis in Marine Science

ATTACHMENT CH-2:

Company Response to Appalachian Voices,

Second Set of Interrogatories, Question 15

Virginia Electric and Power Company
Case No. PUR-2023-00217
Appalachian Voices
Second Set

The following response to Question No. 15 of the Second Set of Interrogatories and Requests for Production of Documents propounded by Appalachian Voices received on February 6, 2024, was prepared by or under the supervision of:

Michael T. Hubbard
Manager, Energy Conservation
Dominion Energy Virginia

Question No. 15

Please refer to the Direct Testimony of Michael T. Hubbard at p. 17, lines 15-16: “The Company expects all approved Phase XI Programs will be available to customers in the first quarter of 2024.”

- a) Please provide a listing of all approved Phase XI programs and indicate whether each is currently available to customers. For any program that is not currently available indicate when it will become available. For any approved Phase XI that will not be available in the first quarter of 2024 indicate why it will not be available.

Response:

Please see the below table for the status of all approved Phase XI Programs:

Program	Currently Open to Customers?	Detail on Status
Residential Income and Age Qualifying Bundle	No	Currently on schedule to be available in the first quarter.
Non-Residential Income and Age Qualifying Bundle	No	Currently on schedule to be available in the first quarter.
Residential Customer Engagement	No	Program expected to launch in the second quarter. IT data integration efforts are ongoing for this program, pushing rollout to the second quarter.
Non-Residential Custom	Yes	Program is currently available to customers.
Residential Energy Efficient Marketplace	Yes	Program is currently available to customers.

Program	Currently Open to Customers?	Detail on Status
Residential Home Retrofit Bundle	Yes	Program is currently available to customers.
Non-Residential Prescriptive Bundle	Yes	Program is currently available to customers.
Residential Electric Vehicle Telematics (Pilot)	No	Program expected to launch in the second quarter. IT data integration efforts are ongoing for this program, pushing rollout to the second quarter.
Residential Peak Time Rebate	No	Program expected to launch in the second quarter. IT data integration efforts are ongoing for this program, pushing rollout to the second quarter.

ATTACHMENT CH-3:

Company Response to Commission Staff,

Fifth Set of Interrogatories, Question 31

Virginia Electric and Power Company
Case No. PUR-2023-00217
Virginia State Corporation Commission Staff
Fifth Set

The following response to Question No. 31 of the Fifth Set of Interrogatories and Requests for Production of Documents propounded by the Virginia State Corporation Commission Staff received on March 8, 2024, was prepared by or under the supervision of:

Terry M. Fry
Executive Vice President
Cadmus

David F. Walker
Director, Strategic Customer Programs
Dominion Energy Virginia

As it pertains to legal matters, the following response to Question No. 31 of the Fifth Set of Interrogatories and Requests for Production of Documents propounded by the Virginia State Corporation Commission Staff received on March 8, 2024, was prepared by or under the supervision of:

Jontille D. Ray
McGuireWoods LLP

Question No. 31

Please refer to the prefiled testimony of Terry M. Fry at 4 which states:

"Because many of the LTP recommendations are directional in nature, "full implementation" is not neatly measured against a checklist of discrete tasks. Rather, successful implementation of the LTP is achieved when the processes of improving ongoing planning, outreach, and implementation activities are fully institutionalized."

- (a) Please provide a description of what it means for processes of improving ongoing planning, outreach, and implementation activities to be fully institutionalized, and provide an example of such from one of the goals included in the LTP.
- (b) How does the Company judge its progress towards fully institutionalizing a process improvement?

Response:

- (a) An example of a successfully institutionalized process is the Long-Term Plan's ("LTP") short-term recommendation to continue coordinating with stakeholders,

which it has done through Company staff's active participation in the facilitated stakeholder process. Please note the LTP Project Management Report (Witness Fry Schedule 1) provides status of completed and partially completed process recommendations. Please also refer to the Company's response to APV Set 03-02 for the requested information.

- (b) The Company objects to this request as vague because "progress" is not defined. Notwithstanding and subject to this objection, the Company provides the following response.

The Company does not have a specific metric on measuring "institutionalizing" process improvements. Notwithstanding, the Company believes it has made significant process improvements in its planning, outreach, and implementation of programs as evidenced by the growth in the Company's portfolio of offerings (as recognized nationally by the American Council for an Energy-Efficient Economy) and compilation of feedback and incorporation of program improvements (such as the new measures and eligibility improvements in the Income & Age Qualifying programs). Many of these improvements have been communicated in prior stakeholder meetings and moderator annual reports. The Company remains committed to collaborative discussions with stakeholders, finding cost-effective programs and performing program process evaluations in an effort to continually improve program performance and customer experience.

ATTACHMENT CH-4:

Company Response to Appalachian Voices,

Second Set of Interrogatories, Question 19

Virginia Electric and Power Company
Case No. PUR-2023-00217
Appalachian Voices
Second Set

The following response to Question No.19 of the Second Set of Interrogatories and Requests for Production of Documents propounded by Appalachian Voices received on February 6, 2024, was prepared by or under the supervision of:

David F. Walker
Director, Strategic Customer Programs
Dominion Energy Virginia

Question No. 19

Please refer to the Direct Testimony of David F. Walker at p. 14, lines 19-22 “the Company has made considerable progress since the 2022 DSM proceeding on the implementation of a portfolio marketing strategy aimed at increasing overall awareness of its DSM programs and benefits of adopting energy conservation technologies and behaviors.”

- a) Has the Company or its consultants conducted any surveys, research or analyses to determine whether the portfolio marketing campaign has, in fact, measurably increased overall awareness of its DSM programs? If yes, please provide all surveys, research and analyses conducted by the Company or its consultants. If no, why not?

Response:

Yes. To assess the impact of the Company’s efforts, the Company has evaluated these initiatives and strategies with a variety of analysis methods. In terms of monitoring increases in awareness, two key assessments were leveraged:

- **Behavioral Analysis:**
 - In 2023 and 2024, the Company’s customer awareness marketing firm, the West Cary Group, actively engaged in evaluating the campaigns’ impacts through behavioral data such as website analytics, user engagement metrics and interaction patterns, and discussed these findings with the Company. This method offers concrete insights into the actual actions taken by our audience in response to the campaign, providing a clear picture of its effectiveness in driving interest and interaction with our DSM programs.
- **Awareness & Perception Tracking:**

West Cary Group and Dominion Energy are collaborating with Cadmus to evaluate the shifts in attitudes and awareness resulting from our campaigns by replicating the initial benchmark study with the same methods, allowing for precise impact assessment, and tracking over time. The

Company's approach aims to give a comprehensive view of its campaigns. The Company anticipates further analysis throughout 2024 as campaigns progress.

1. **The increase in year-over-year (“YoY”) visits to the DominionEnergy.com/Virginia/Save-Energy pages, which provide vital information on DSM programs and are critical for initiating participation, serves as an important measure of DSM awareness growth.**

The increase in traffic to the DSM pages was propelled by several marketing efforts:

- Seasonal homepage banners on DominionEnergy.com highlighted DSM, drawing the broader audience to DSM programs.
- Search Engine Optimization (“SEO”) and User Experience enhancements were made to DSM-related pages to bolster search engine rankings and user navigation.
- Paid marketing campaigns, including search engine marketing from July 2023 and a comprehensive campaign in October 2023 for Energy Awareness Month were employed.
- External Implementor-run program sites also redirected users back to DominionEnergy.com.

Google Analytics data from January 2023 to September 2023 compared to the same period in 2022 was used for this assessment (note: data from October 2022 to December 2022 was omitted to ensure a balanced comparison due to changes in cookie consent affecting data collection during that time period).

Results:

- **Total Traffic increased by 25% in 2023 (134K users) as compared to 2022 (111K users).** This metric shows overall growth of site visitors, more visitors indicate higher awareness.
- **Organic Traffic (including Direct & Organic Channels) increased by 21% in 2023 (121K users) as compared to 2022 (97K users).** Organic traffic shows growth of site visitors YoY from non-paid channels (*i.e.*, users arriving on-site directly through a browser or non-paid search engine listing) and helps quantify the impact of SEO and site content optimizations, along with secondary impacts of paid media.
- **New Users to the DSM pages increased by 14% YoY in 2023 (58K users) as compared to 2022 (51K users).** New user traffic identifies the site users who are visiting DSM-related site pages on DominionEnergy.com for the first time. This metric helps quantify the number of new participants coming into the DSM ecosystem as opposed to repeat participants.

2. Search Engine Marketing Campaigns

In the second half of 2023, Search Engine Marketing (SEM) was utilized to drive program awareness. SEM shows relevant Dominion Energy pages when a user queries (using a search engine like Google, Bing, DuckDuckGo, etc.) with an intent of finding material related to save energy or save money on electricity. The campaigns have been successful with a click through rate of 13.42% (over 5x the industry benchmark of 2.41% for the consumer services industry).

3. Energy Awareness Month Campaigns

Dominion Energy promoted October as Energy Awareness Month and highlighted the Virtual Energy Audit due to its nearly universal eligibility and ease of participation. The campaigns launched during this month had two key focus areas 1) promote Virtual Energy Audit (VEA) program and 2) drive broader DSM awareness. The campaigns resulted in more than 3.4 million impressions served and 36.7K clicks to the website. The marketing created a significant increase in participation:

- VEA had 3,758 participants during the 3-week campaign (Oct 12-Oct 31, 2023).
- For comparison:
 - VEA had 2,049 participants in Jun 13-Dec 31 of 2022 (6.5 months).
 - VEA had 4,063 participants in Jan-Aug of 2023 (8 months).

ATTACHMENT CH-5:

Materials from Dominion Energy Virginia

Stakeholder Meeting

Date: Friday, March 22, 2024



Dominion Energy Virginia - Energy Efficiency Programs Agenda

Stakeholder Meeting

Date: Friday, March 22, 2024

Time: 9:00 AM to 11:30 AM

Location: In-person: 5000 Dominion Blvd Glen Allen, VA 23060 (DEV Innsbrook Auditorium)
Online Link: [WebEx](#) Meeting Number: 2346 608 9401

Pre-Reading:

- [DSM Phase II Non-Residential Distributed Generation Program](#)
- [Proposed DSM Phase XI Programs and Program Bundles](#)
- [2024 Program Concept Evaluation Stakeholder Input Request \(Excel\)](#)
 - Please bring ideas using template as much as possible

Time	Topic
9:00 AM – 9:15 AM	Welcome and Introductions <ul style="list-style-type: none"> I. Opening Welcome & Safety Message II. New Attendees
9:15 AM – 10:00 AM	Updates and Q&A <ul style="list-style-type: none"> I. Independent Monitor II. SCC III. Stakeholders IV. Subgroups V. Dominion Energy Virginia <ul style="list-style-type: none"> a. Marketing Update – Dominion Energy and West Cary Group
10:00 AM – 11:15 AM	Idea Brainstorming and Discussion to inform upcoming RFP and Filing <ul style="list-style-type: none"> I. Small Group Discussion (Topic Areas for Consideration) <ul style="list-style-type: none"> a. New Program Ideas b. New, Enhanced, Different Measures c. Overall Process (Goals, Savings Targets, etc.) d. Other II. Report Out
11:15 AM – 11:30 AM	Wrap Up <ul style="list-style-type: none"> I. Stakeholder Ideas and Objectives for Next Steps



Agenda

1. **Dominion Energy Brand Update**
2. **Dominion Energy DSM Customer Communications Ecosystem**
 - Energy Awareness Month Case Study
3. **Customer Awareness & Engagement Review**
 - West Cary Group
 - Honeywell
 - CLEARResult
4. **Wrap Up**
5. **How Can You Help?**
6. **Appendix**
 - Customer Awareness Subgroup Update



West Cary Group



Year-in-Review: Customer Awareness KPIs & Engagement

Key market efforts in 2023

- Made search engine optimization (SEO) and user experience enhancements to DSM-related webpages to bolster search engine rankings and user navigation
- Launched search engine marketing (SEM) campaigns in July 2023 to drive program awareness
- Deployed digital traffic campaigns, such as the Energy Awareness Month campaign
- Developed strategies for in-market activations with aspirations to double site traffic in 2024

Results:

+25%

YoY Traffic Increase

2023: 134K users | 2022: 111K users

+21%

YoY Organic & Direct Traffic Increase

2023: 121K users | 2022: 97K users

5x

SEM Clickthrough Rate

Compared to Industry Benchmark

+14%

YoY New User Traffic Increase

2023: 58K users | 2022: 51K users

2024 In-Market Plan

Dominion Energy DSM VA/NC Awareness Marketing - 2024			
Awareness	Platforms	Channel/Tactic	Impression Forecast
DSM Video Awareness Campaigns	Google	YouTube - Evergreen Video Awareness	12,986,417
	Meta	Facebook / Instagram - Evergreen Video Awareness	
	StackAdapt	CTV/OTT - Evergreen Video Awareness	
	Hulu	CTV - Seasonal Video Awareness	
DSM Awareness Out-of-Home	Bulletins/Billboards	Seasonal OOH Awareness	8,000,000
	Metro/Transit Signage	Seasonal OOH Awareness	5,000,000
DSM Awareness Broadcast	Cable	Taggable Program Sponsorship	4,000,000
	Local Direct	Taggable Program Sponsorship	
DSM Awareness Audio Campaigns	Spotify/StackAdapt	Streaming Audio	2,000,000
	Terrestrial Radio	Total Traffic & Weather Network	3,000,000
Engagement			
DSM Digital Traffic Campaigns	Google	Evergreen SEM	180,000
	Meta	Content-Specific Display	13,530,000
	StackAdapt	Content-Specific Social	
	Nextdoor	Content-Specific Programmatic (Native)	
		Content-Specific Social	

HONEYWELL-IMPLEMENTED DOMINION ENERGY ENERGY CONSERVATION PROGRAMS MARKETING UPDATES

March 25, 2024

Honeywell

KEY 2023 GROWTH METRICS

YOY Growth (2022-2023)

Honeywell

2023 GROWTH: DOMSAVINGS.COM ENGAGEMENT

Over 190% Increase in New Users

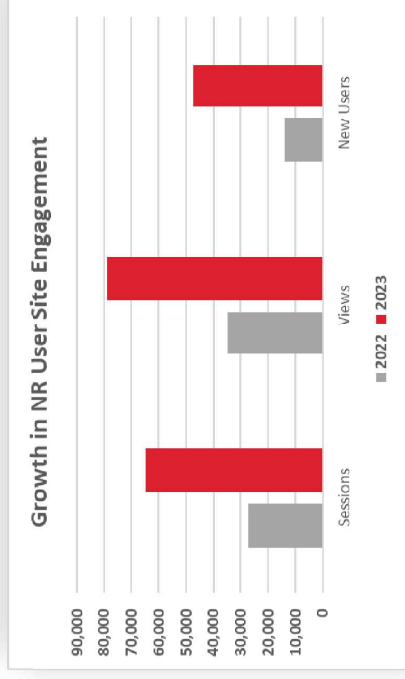
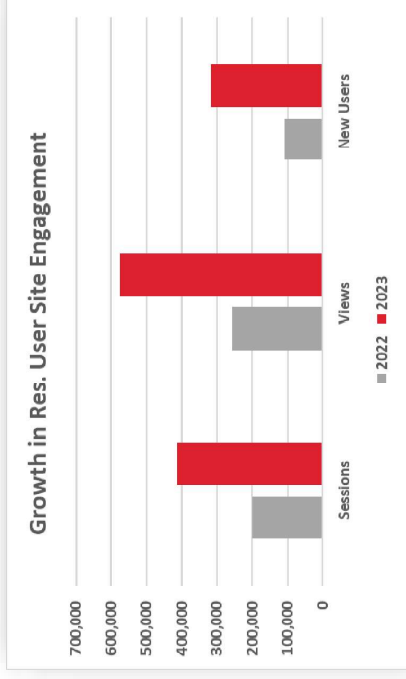
- 190% Increase (Res: 316,224)
- 240% Increase (NR: 47,431)

Over 100% Increase in Sessions

- 105% Increase (Res: 412,390)
- 140% Increase (NR: 64,836)

Over 125% Increase in Views

- 125% Increase (Res: 575,769)
- 128% Increase (NR: 78,996)



New & optimized campaigns are fueling strong, sustained site engagement growth.

2023 GROWTH: GOOGLE ADS

Over **215%** Increase in SEM & GDN ad clicks

- 281K Clicks in 2023 (89K in 2022)

Over **245%** Increase in Conversion Actions

- 69K Conversions in 2023 (20K in 2022)

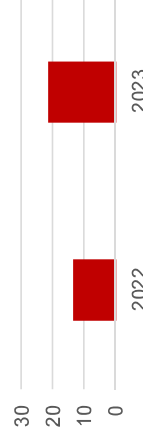
Over **270%** Increase in Impressions

- 18.5M Impressions in 2023 (5M in 2022)

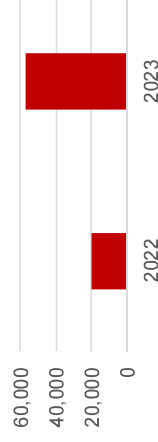
Over **65%** Increase in GDN Conversion Rate

- 22.38% Conversion Rate in 2023 (13.54% in 2022)

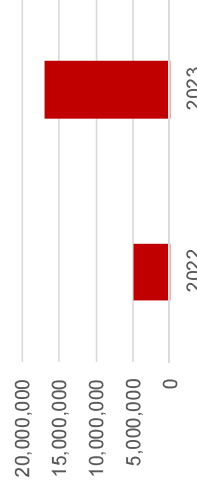
Display Ad Conversion Rate (%) 2022 vs. 2023



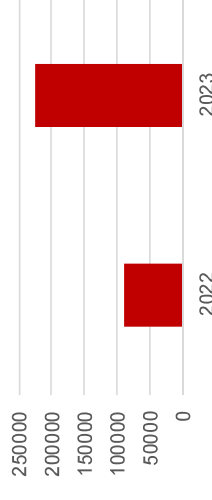
Conversion Actions 2022 vs. 2023



Impressions 2022 vs. 2023



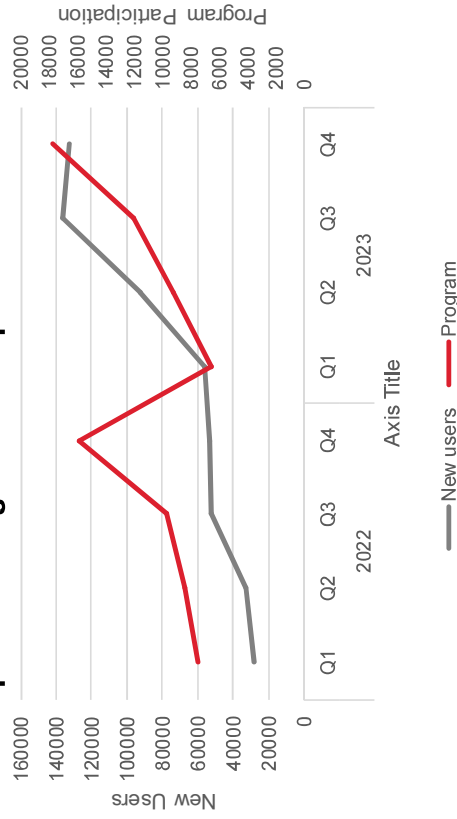
Clicks 2022 vs. 2023



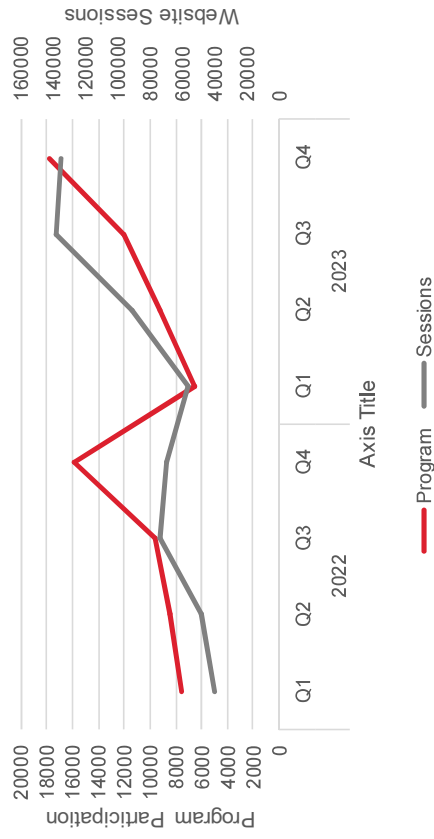
Optimizations & new campaign launches are driving strong, sustained digital growth.

2023 PROGRAM PARTICIPATION GROWTH

Growth in New Domsavings.com Users Impact on Program Participation Growth



Growth In Domsavings.com Sessions Impact on Program Participation Growth



Campaigns are driving growth in new users & sessions; positively impacting participation.

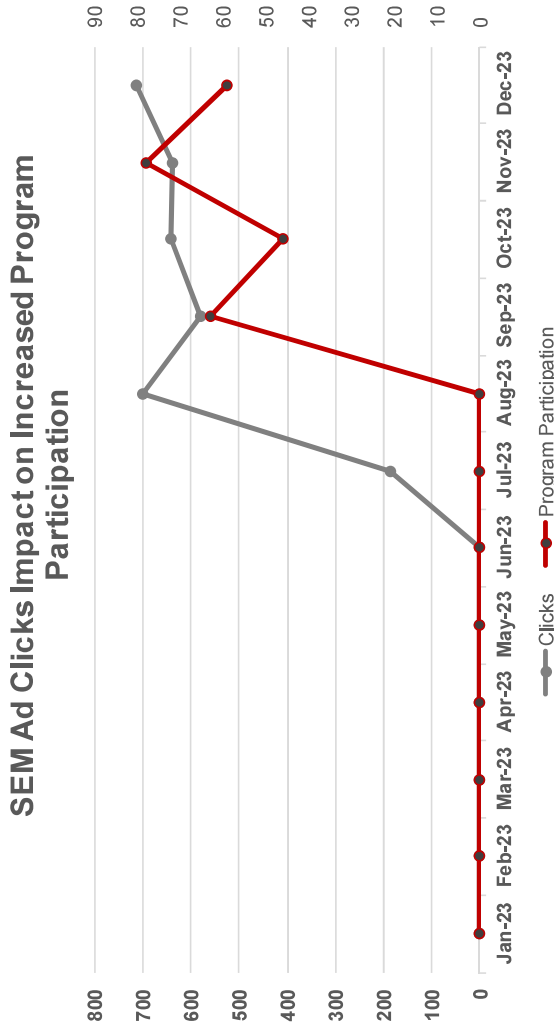
CASE STUDY: NR LIGHTING CAMPAIGN

2023 Growth

- Program launched; ~64,730 kWh savings by EOY
- SEM ads launched in June; 4651 clicks by EOY
- Reached ~84% of targeted goal
- Contractor registration ramped up in 2023

2024 Momentum

- In Jan & Feb 2024 alone: processed the equivalent of approx. 52% of all 2023 rebate dollars: ~ \$902K



ATTACHMENT CH-6:

Excerpt from “DEV DSM Final Order

Recommendations,” included with Direct Testimony of

David F. Walker, Schedule 2, Appendix B

DEV DSM Final Order Recommendations

Stakeholder Input

Contents

Overview	2
Recommendation 12.....	2
1a - IRA funding impact on program costs and cost-effectiveness.....	3
1b - Non-energy benefits: how could they better quantify benefits of programs/bundles.....	12
1c - Building codes: what are impacts on measurement of benefits.....	18
Recommendation 24.....	22
Recommendation 25.....	26
Recommendation 26.....	29
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Recommendations for Full Report	35

DEV DSM Final Order Recommendations

Stakeholder Input

- I'm not sure enough information is available on IRA funding opportunities, particularly for non-residential customers, for there to be many useful insights at this point. I think it would be prudent to revisit this issue a year from now, especially the question of how Dominion programs and IRA funding opportunities might work hand-in-hand.
- To maximize benefits to all Virginians, all Virginia utilities should submit plans for speedy adoption of green button and orange button data sharing protocols. See <https://www.energy.gov/data/green-button> and <https://www.energy.gov/eere/solar/orange-button-solar-data-standard>. Learn more at <https://www.missiondata.io/>. We have been dragging our feet on this for more than ten years.

1b- Non-energy benefits: how could they better quantify benefits of programs/bundles.

Q7. Virginia law refers to four specific tests, namely total resource cost test, participant test, utility cost test, and the ratepayer impact cost test. To which tests (or alternative tests) would you recommend non-energy benefits be added?

Summary: Stakeholders have varying recommendations regarding the addition of non-energy benefits to the four specific tests in Virginia law. Some stakeholders suggest including these benefits in the total resource cost test or any of the tests being used to evaluate Dominion's energy conservation programs. They argue that these tests currently reflect a cost of energy that is artificially low and do not consider factors such as subsidies received from fossil fuels, health impacts, and environmental damage. They propose that attaching a monetary value to non-energy benefits would more accurately reflect the benefits of these programs. However, there are also stakeholders who do not support the addition of any non-energy benefits to the tests unless the savings/costs of these benefits can be directly related to specific energy use and calculated with the same degree of certainty as energy-related benefits. They emphasize the importance of accurate calculations and potential error rates.

10 Stakeholder Responses Received

- None
- I do not support the addition of any non-energy benefits to the tests unless the calculated savings/ costs of the non-energy benefits are 1) directly relatable to the specific energy use, 2) can be calculated with the same degree of certainty or potential error rate as the energy related benefits.
- What matters is that the full value be reflected in the calculations regardless of one specific pigeonhole. If picking a label would undermine full recognition of the value, then the methodology is flawed. Both ratepayers and the public benefit from full recognition of the social cost of carbon in measures that reduce impacts from greenhouse gas emissions.
- Non-energy benefits (NEBs) need to be added to all four of these tests. These tests reflect a cost of energy that is kept artificially low. For example, they do not reflect: the subsidies received from extraction and use of fossil fuels; the health impacts from using fossil fuels in traditional thermal plants; the environmental damage caused by disposal of mining, drilling, or combustion byproducts (for example, when a holding pond leaks, or the management of uranium mine tailings). It can be difficult to monetize the NEBs of reducing energy use, and of switching to sustainable sources of energy. Attaching a monetary value to these NEBs may make it easier for some of the calculations and tests. To that end, the EPA has recently proposed setting the

DEV DSM Final Order Recommendations

Stakeholder Input

societal cost of carbon at \$190/ton. This could potentially be incorporated into the aforementioned tests, to make them more accurately reflect the benefits of these programs.

- NEBs should be included in the total resource cost (TRC) test to remain consistent with standard practice.
- The total resource cost test (TRC) must account for non-energy benefits (NEBs) in order to avoid overemphasizing costs. It does the public a great disservice to assign NEBs a value of zero. Such valuation is self-evidently not in the public interest. A simple solution would be to abandon Virginia's idiosyncratic, outdated cost test regime and to adopt the National Standard Practice Manual (NSPM) – which accounts for NEBs. Consumer, clean energy, labor, and environmental advocates would join Virginia's utilities in lobbying the General Assembly for a bill to that end. As Chris Neme noted during his October 23 presentation that covered the NSPM, he presented that same information to this group on April 29, 2021. Can we all agree that the NSPM is better and lobby for its adoption??
- All of the above.
- All of them, especially the RIC and PCT¹
- Non-energy benefits should be added to any of the 4 specific tests that are being used to evaluate Dominion's energy conservation programs.
- NEBs would be most appropriately applied in the TRC test. Air pollutant emissions are an increasingly important non-energy benefit in states like Virginia, which has set greenhouse gas emissions targets under the Clean Economy Act. Since carbon dioxide has been legally found to be a pollutant under the Clean Air Act, CO2 emissions benefits should be factored into the overall policy assessment of Dominion's energy efficiency programs. However, because the Clean Economy Act also places Virginia in the Regional Greenhouse Gas Initiative (RGGI), this shifts the carbon accounting framework such that end use electric energy efficiency measures cannot be attributed direct CO2 emission credits. That's because RGGI sets the CO2 emissions cap on powerplant emissions; changes in end use electricity usage, be it from energy efficiency, weather, or economic conditions, does not affect RGGI compliance. Reducing usage indirectly benefits the program by reducing the costs of compliance to powerplant owners, but it doesn't create direct emission reductions in a given compliance year.

Q8. Do you think Dominion Energy should advocate for policy change, and, if so, why and how?

Summary: Stakeholders recommend several actions for Dominion Energy. These include accelerating the transition to a zero-carbon energy system, advocating for legislative mandates for clean energy, supporting the adoption of the National Standard Practice Manual (NSPM), advocating for portfolio-level cost/benefit analysis, and advocating for policy changes that improve sustainability and lessen negative impacts. They believe these actions will not only benefit the environment but also the company's long-term sustainability and reputation.

10 Stakeholder Responses Received

- No

¹ RIC – may refer to RIM (Ratepayer Impact Test). PCT (Participant Cost Test)

ATTACHMENT CH-7:

Excerpt from Dominion Energy Virginia,

2023 EM&V Report, Appendix E



Appendix E

Evaluation, Measurement, and Verification (EM&V) Plans

Dominion Energy

May 31, 2023





E2. REFERENCES AND CITATIONS

In developing the EM&V plans for the Company's DSM programs, DNV consulted the following set of core EM&V standards and guidance documents.

Efficiency Valuation Organization (EVO). [International Performance Measurement and Verification Protocol](https://evo-world.org/en/products-services-mainmenu-en/protocols/ipmvp). The International Performance Measurement and Verification Protocol (IPMVP) provides an overview of current best practices for determining and verifying results of energy efficiency. It is one of the most recognized M&V protocols for demand-side energy activities. <https://evo-world.org/en/products-services-mainmenu-en/protocols/ipmvp>

U.S. Department of Energy. [Uniform Methods Project. July 2018](http://energy.gov/eere/about-us/ump-protocols). Uniform Methods Project protocols provide standardized, common-practice M&V methods for determining gross energy savings for many of the most common residential and commercial measures and programs offered by administrators of energy efficiency programs in North America for utility customers. The UMP also includes cross-cutting protocols for topics such as net savings determination, metering, and persistence of savings determination. <http://energy.gov/eere/about-us/ump-protocols>

[ASHRAE Guideline 14-2014: Measurement of Energy and Demand Savings. American Society of Heating, Refrigerating, and Air-Conditioning Engineers](https://webstore.ansi.org/Standards/ASHRAE/ASHRAEGuideline142014). Guideline 14 provides a standardized set of energy, demand, and water-savings calculation procedures. This publication guides minimum acceptable levels of performance for determining energy and demand savings, using measurements, in commercial transactions. <https://webstore.ansi.org/Standards/ASHRAE/ASHRAEGuideline142014>

[U.S. Department of Energy Federal Energy Management Program. M&V Guidelines: Measurement and Verification for Performance-Based Contracts, Version 4.0. November 2015](https://www.energy.gov/sites/prod/files/2016/01/f28/mv_guide_4_0.pdf). Prepared for DOE's Federal Energy Management Program, the purpose of this document is to provide guidelines and methods for documenting and verifying the savings associated with federal agency performance contracts. It contains procedures and guidelines for quantifying the savings resulting from energy efficiency equipment, water conservation, improved operations and maintenance, renewable energy, and cogeneration projects. https://www.energy.gov/sites/prod/files/2016/01/f28/mv_guide_4_0.pdf

[Mid-Atlantic Technical Reference Manual, Version 10](https://neep.org/sites/default/files/media-files/trmv10.pdf). The Mid-Atlantic TRM provides detailed deemed savings equations and common assumptions for prescriptive residential and non-residential DSM measures. Measures were chosen by consensus of the Mid-Atlantic TRM subcommittee and project team. For each measure, the TRM includes either specific deemed values, factors, or algorithms for calculating gross annual electric energy savings, gross electric summer coincident peak demand savings, gross annual fossil fuel energy savings, other resource savings, incremental costs, and measure life. <https://neep.org/sites/default/files/media-files/trmv10.pdf>

[PJM Manual 18B](https://pjm.com/~media/documents/manuals/m18b.ashx): Energy Efficiency Measurement & Verification, Revision: 04, Effective Date: August 22, 2019, PJM Forward Market Operations. The PJM Manual for Energy Efficiency Measurement & Verification is one of the PJM procedure manuals under the Reserve Manuals category. <https://pjm.com/~media/documents/manuals/m18b.ashx>

[State & Local Energy Efficiency Action \(SEE Action\) Evaluation, Measurement, and Verification Resource Portal](https://www4.eere.energy.gov/seeaction/evaluation-measurement-and-verification-resource-portal#guidance). EM&V Resource Portal is an EM&V resource for energy efficiency program administrators and project managers. <https://www4.eere.energy.gov/seeaction/evaluation-measurement-and-verification-resource-portal#guidance>

[Dominion Energy Virginia and North Carolina Technical Reference Manual \(DE TRM\)](https://www.scc.virginia.gov/docketsearch#caseDocs/141608). The residential and non-residential Dominion Energy Technical Reference Manual (formerly the Standard Tracking and Engineering Protocol or STEP Manual) filed with the 2022 EM&V Report as "Appendix F1 and F2 – Residential and Non-Residential Standard Dominion Energy Technical Reference Manual 2021 (see DSM 9 case: PUR-2020-00274 at <https://www.scc.virginia.gov/docketsearch#caseDocs/141608>).

CERTIFICATE OF SERVICE

I hereby certify that the following have been served with a true and accurate copy of the foregoing **Direct Testimony of Chelsea Harnish on behalf of the Virginia Energy Efficiency Council (“VAEEC”)**, which consists of a one-page summary, twenty (20) pages of questions and answers, and seven (7) attachments, labeled CH-1 through CH-7.

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