part 2

2312550005

Walker

WITNESS DIRECT TESTIMONY SUMMARY

Witness: David F. Walker

Title: Director of Strategic Customer Programs

Summary:

Company Witness David F. Walker presents the Company's proposal in the current Application. First, he provides an overview and updates to the Company's approach to DSM. More specifically, Mr. Walker explains how the Company has conducted DSM Programs in Virginia and explains how the Virginia Clean Economy Act ("VCEA") amended which customers are required to pay for costs of, and by extension participate in energy efficiency programs, by removing the automatic exemption under Subsection A 5 c for large commercial and industrial customers. The VCEA, through Va. Code§ 56-596.2, further directs that at least 15% of costs be for programs designed to benefit low-income and elderly, disabled individuals, or veterans. The VCEA also specifies total annual energy savings targets, starting in year 2022 through 2025, with savings targets to be set by the Commission thereafter.

Mr. Walker further discusses the Company's participation in the independent moderator-led stakeholder group, which the VCEA extended the scope of the group to include feedback and input on, for example, best practices for evaluation, measurement, and verification ("EM&V") services. The Company incorporates stakeholder input into its requests for proposals ("RFP") and has made adjustments to the DSM process and planned administration of Programs in line with stakeholder feedback. In addition, Mr. Walker explains that the Company has complied with the Commission's directive in the 2022 DSM Final Order, Case No. PUR-2022-00210, to refer certain issues to the Stakeholder Group.

He then provides an overview of the Company's request for approval of DSM Phase XII, the proposed streamlining of its DSM Portfolio, and the associated cost caps. Mr. Walker explains that the Company is continuing to move to the consolidated program structure that was recommended in the Company's Long-Term Plan. However, as noted in Company Witness Michael T. Hubbard's direct testimony, the seven categories will continue evolve to adapt to customer needs, program portfolio offerings, and the latest market trends. Nonetheless, Mr. Walker explains that the Company will continue to use the consolidated program structure as an opportunity to streamline its DSM program portfolio and achieve its energy efficiency goals.

Mr. Walker next addresses the VCEA's energy savings targets and discusses efforts underway to enhance Program performance and increase energy savings. Mr. Walker also provides an overview of the Company's cost recovery request for the rate year period of September 1, 2024, through August 31, 2025, through Riders C1A, C2A, and C4A, and describes the Company's compliance with the Commission's prior order and directives (as applicable to this proceeding). Finally, Mr. Walker introduces the other witnesses presenting direct testimony in support of the Company's Application.

DIRECT TESTIMONY
OF
DAVID F. WALKER
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2023-00217

Q. Please state your name, business address, and position with Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company").

A. My name is David F. Walker, and my business address is 600 East Canal Street, Richmond, Virginia 23219. I am the Director of Strategic Customer Programs for the Company. A statement of my background and qualifications is included as Appendix A.

Q. Please describe your areas of responsibility with Dominion Energy Virginia.

A. I am responsible for delivering Demand-Side Management ("DSM") programs (individually, "DSM Program" or "Program," collectively, "DSM Portfolio" or "Portfolio") for the Company. In addition, I am responsible for program development and deployment of rural broadband infrastructure within the Company's regulated service territory in Virginia as well as the Grid Transformation Plan fiber projects.

Q. Please describe the purpose of your testimony in this proceeding.

A. My testimony supports the Company's application for approval to (1) implement DSM "Phase XII," which includes new Programs to supplement the overall Portfolio; and (2) update and continue rate adjustment clauses ("RACs") designated Riders C1A, C2A, and C4A[1] (collectively, the "Application").

Specifically, the purpose of my testimony is to:

(1) Provide an overview and updates to the Company's approach to DSM;

(2) Present an overview of the Company's request for approval of DSM Phase XII;

(3) Address the Virginia Clean Economy Act ("VCEA") energy savings targets and discuss efforts underway to enhance program performance and increase energy savings;

(4) Provide an overview of the Company's cost recovery request for the rate year period of September 1, 2024, through August 31, 2025 ("Rate Year") through Riders C1A, C2A, and C4A;

(5) Describe the Company's compliance with the Virginia State Corporation Commission's (the "Commission") order and directives in the 2022 DSM proceeding, 2021 DSM proceeding, the 2020 DSM proceeding, and the 2020 evaluation, measurement, and verification ("EM&V") proceeding; and

(6) Introduce the other witnesses presenting testimony and summarize the requests presented by the Company with this Application.

Q. Are you sponsoring an exhibit in this proceeding?

A. Yes. Company Exhibit No. __, DFW, consisting of Schedules 1-3, was prepared under my direction and supervision, and is accurate and complete to the best of my knowledge and belief.

[1] As a result of the VCEA, which established new parameters on customer exemptions and opt-outs, the Company proposed and was subsequently approved in the Company's 2020 DSM proceeding, Case No. PUR-2020-00274, that the true-up for energy efficiency programs in Phases VII and VIII would fall under Rider C3A until August 31, 2021 and begin in Rider C4A as of September 1, 2021. The Company therefore seeks approval to recover the Phase VII and Phase VIII true-up calculated in this proceeding and related financing costs, as well as any ongoing financing costs related to previous Over/Under deferral balances pertaining to the Phase VII and Phase VIII Programs, in Rider C4A and ultimately end the C3A rate adjustment clause.

Q. How is your testimony organized?

A. My testimony is organized as follows:

I. Overview and Update to Company's DSM Approach

II. Request for Approval of Proposed Phase XII Programs

III. VCEA Targets & Efforts to Enhance Performance and Increase Energy Savings

IV. Cost Recovery Request

V. Additional Compliance with the Commission's Orders

VI. Introduction of Company Witnesses and Summary of Requests

I. OVERVIEW AND UPDATE TO COMPANY'S DSM APPROACH

Q. Please provide background on how the Company has conducted DSM Programs in Virginia.

A. In March 2007, a voluntary energy efficiency goal of 10% electricity savings was enacted by the Virginia General Assembly. To achieve this goal, Dominion Energy Virginia launched its DSM Programs, consisting of energy efficiency and peak shaving programs. Dominion Energy Virginia offers voluntary energy conservation programs and useful information to help residential and non-residential customers make energy efficient improvements and reduce demand during peak periods.

Customers are required to meet specific eligibility criteria described in the program terms and conditions specific to each DSM program, which are available on the Company's website. The terms and conditions, Frequently Asked Questions, as well as other program materials, are developed post-Commission approval to assist customers in understanding eligibility and program expectations for the large offering of DSM programs available to residential and non-residential customers The field implementation and administration services for the DSM Programs are provided by third-party implementation vendors, which currently include CLEAResult, EnergyHub, Honeywell, ICF, Itron, Resource Innovations, PowerSecure and TRC Solutions. Each vendor is under contract with Dominion Energy Virginia to implement and operate certain field-service-level functions for each DSM Program. Dominion Energy Virginia's Energy Conservation Department program managers have oversight responsibility to ensure the third-party implementation vendors are operating in accordance with the Commission's approval and contracted responsibilities.

Energy savings associated with the Company's DSM Programs are determined by EM&V each year by the Company's independent, third-party EM&V vendor, DNV. The Company continues to file annual EM&V reports detailing energy and demand reductions, as well as spending, participation, and other performance indicators, by program via other performance reporting dashboards.

In 2022, approximately 389,276 residential and non-residential customers participated in the Company's DSM Programs and over 5.1 million LED bulbs were discounted. The Company also provided over 19,000 appliance rebates to our residential customers and issued over 7,000 welcome kits. Furthermore, over 500 small business customers participated in the Company's Small Business Improvement Enhanced Program, resulting in approximately 4.5 million kWh net savings.

Overall, approximately $41 million were disbursed in rebate payments across the active programs in 2022. This resulted in Dominion Energy Virginia customers saving approximately 149 gigawatt-hours of energy last year.

My Schedule 1 provides an executive summary of the Company's 2022 DSM Portfolio performance and is provided as part of this filing, consistent with the Commission's Order in Case No. PUR-2020-00156. This executive summary or "dashboard" was created based on comments from stakeholders regarding which metrics were of most interest to them. The data is for the prior calendar year—here 2022—and has been fully audited via the Company's internal processes and third-party external EM&V.

Q. Please provide an overview of the VCEA as it relates to the Company's DSM Programs.

A. The VCEA became effective on July 1, 2020, and contains several provisions that amended the laws related to DSM programs. According to Subsection A 5 c of the VCEA, a petition for energy efficiency programs shall include a "proposed budget for the design, implementation, and operation of the energy efficiency program, including anticipated savings from and spending on each program, and the Commission shall grant a final order on such petitions within eight months of initial filing." This subsection also includes provisions that the Commission shall allow a margin for recovery on operating expenses for energy efficiency programs until January 1, 2022, after which a margin is dependent on what the Company has proposed, what the Commission has approved, and whether the Company has met its total annual savings targets.

The VCEA also amended which customers are required to pay for costs of, and by extension participate in energy efficiency programs, by removing certain automatic exemption language, redefining the definition of Large General Service ("LGS") Customer, and directing the Commission to establish an opt-out procedure for eligible customers implementing energy efficiency on their own. This change allowed the Company to offer its DSM Programs to a broader group of non-residential customers. In its Final Order in the 2020 DSM proceeding issued on September 7, 2021, the Commission approved expanding eligibility for existing programs to the LGS Customers.

Also, as part of the VCEA, Virginia Code § 56-596.2 indicates that at least 15% of energy efficiency program costs should be designed to benefit low-income and elderly, disabled individuals, or veterans. Moreover, the VCEA specified total annual energy savings targets for the Company to achieve, starting in year 2022 through 2025, with savings targets to be set by the Commission thereafter. I will address these savings targets and progress towards them later in my testimony.

Lastly, the VCEA expanded the scope of the stakeholder group to include feedback and input on (i) the development of energy efficiency programs and portfolios of programs; (ii) compliance with total annual energy savings targets and effect on integrated resource plans; (iii) recommended policy reforms to ensure maximum and cost-effective energy efficiency; and (iv) best practices for EM&V services. Section 56-596.2 also provides that a utility must use a third-party evaluator to perform EM&V on total annual savings targets and requires a third-party evaluator to provide reports on its findings concurrently to the Commission and the utility.

Q. Can you comment further on the Company's participation in the independent moderator-led DSM stakeholder group process?

A. Yes. The Company continues to participate in stakeholder group meetings led by the Commission-hired independent moderator, and in numerous subgroup meetings on a variety of subject areas of most interest to stakeholders. During the meetings, stakeholders provide input on areas of focus for energy efficiency programs and specific conservation measures. The Company incorporates stakeholder input into its requests for proposals ("RFP") and has made adjustments to the DSM process and planned administration of Programs in line with stakeholder feedback. Company Witness Michael T. Hubbard addresses the stakeholder and RFP processes further in his testimony and schedules, including the process of moving from stakeholder idea to pilot or program proposal.

Q. The Commission's Final Order in Case No. PUR-2022-00210 ("2022 DSM Final Order") adopted four recommendations from the Hearing Examiner's Report that referred certain issues to the Stakeholder Group for consideration and require a report from the Company on these issues. What were the four recommendations from the Hearing Examiner's Report?

A. The four recommendations included the following:

> (12) Refer the issues regarding how the cost-effectiveness of DSM Programs is currently measured, including: (i) how the Inflation Reduction Act will reduce the cost of some DSM Programs; (ii) how the inclusion of non-energy benefits (e.g., the social cost of carbon) can better quantify the benefits for all programs and bundles; and (iii) how building codes impact the measurement of cost-effectiveness of DSM Programs, to the Stakeholder Group and require a report from the Company on these issues in next year's DSM case;

(24) Refer the issue of dual-fuel customers to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case;

(25) Refer the issue of the LTP and DSM Program consolidation to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case; and

(26) Refer the issue of leveraging the functionalities of AMI, including geo-targeting, in demand-response programs to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case.

Q. Has the Company complied with this directive?

A. Yes. Please see my Schedule 2 for the Company's Initial Stakeholder Engagement Report. Given the complexity of the topics to be addressed, the consensus at the October 23, 2023 stakeholder meeting, as an initial step, was for the stakeholders to provide written feedback to the Company regarding the four recommendations referred to the stakeholder process. The feedback collected and compiled by the independent moderator is attached as Appendix A to my Schedule 2. Utilizing this feedback, the Process Subgroup (a formal subgroup of the Stakeholder Process) will develop a plan to provide a more comprehensive response to the four topics, including the process that the stakeholder group will use to conduct more in-depth research and discussion, and a schedule for the process with anticipated meeting dates (as determined by the stakeholder group) to provide input for the more comprehensive report on each of the recommendations. The Process Subgroup anticipates meeting in January 2024, and the Company will provide further updates to the Commission as progress is made.

Q. Please provide an update on the Company's progress to move to the consolidated program structure that the Company's consultant, Cadmus, recommended in the Company's Long-Term Plan ("DSM LTP" or "LTP").

A. Although we are still using the phased approach for purposes of cost caps and implementation, we are continuing to move to the consolidated program structure Cadmus recommended in the Company's LTP. However, as noted in Company Witness Michael T. Hubbard's direct testimony, the seven categories will continue evolve to adapt to customer needs, program portfolio offerings, and the latest market trends. Nonetheless, the Company will continue to use the consolidated program structure as an opportunity to streamline its DSM program portfolio and achieve its energy efficiency goals.

II. REQUEST FOR APPROVAL OF PROPOSED PHASE XII PROGRAMS

Q. What are the Programs for which the Company is seeking approval through this Application?

A. Consistent with the LTP, Phase XII includes four new program redesigns, which are: (i) Residential New Construction (EE); (ii) Residential Smart Thermostat Purchase (EE); (iii) Residential Smart Thermostat Demand Response (DR); and (iv) Non-residential New Construction (EE). Also, the Company is requesting a modification to the eligibility criteria for the DSM Phase VIII Small Business Improvement Enhanced Program and modification to the measures of the Non-residential Midstream Energy Efficiency Products (EE).

The direct testimony and schedules of Company Witness Hubbard provide additional detail regarding these Programs and the measures included therewith, as well as the projected participation and energy and demand savings. Additionally, the direct testimony of Company Witness Rachel L. Hagerman provides additional detail regarding the cost/benefit modeling and scores for the Phase XII Programs.

Q. What is the proposed cost cap for the Phase XII Programs?

A. The proposed five-year cost cap for the Phase XII Programs in the aggregate is approximately $102.4 million and $117.8 million with the 15% variance allowance. Information regarding the individual proposed cost caps for each Program, and the associated details, are provided by Company Witness Jarvis E. Bates. Consistent with the Commission's approval in the 2022 DSM Update Final Order, the Company requests the Commission allow spending flexibility up to 15% above the proposed caps. Doing so allows the Company to embrace popular and successful Programs and unlock greater energy efficiency savings than otherwise may be achieved.

Q. What are the closure dates proposed for the Phase XII Programs?

A. Consistent with the Commission's Order in Case Nos. PUR-2021-00247 and PUR-2022-00210, the Company is not proposing predetermined program closure dates; however, five-year budgets are being submitted for each program.

III. VCEA TARGETS & EFFORTS TO ENHANCE PERFORMANCE AND INCREASE ENERGY SAVINGS

Q. Earlier you referenced the energy efficiency savings targets the VCEA established for 2022 through 2025 and beyond. Could you please explain what those targets are?

A. With the passage of the VCEA, the General Assembly has set aggressive carbon reduction targets through the expansion of renewable generation resources, storage, and energy efficiency. Specifically with respect to energy efficiency, the General Assembly established the following total annual energy savings targets:

> a. In calendar year 2022, at least 1.25 percent of the average annual energy jurisdictional retail sales by that utility in 2019;
>
> b. In calendar year 2023, at least 2.5 percent of the average annual energy jurisdictional retail sales by that utility in 2019;
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> c. In calendar year 2024, at least 3.75 percent of the average annual energy jurisdictional retail sales by that utility in 2019;
>
> d. In calendar year 2025, at least 5.0 percent of the average annual energy jurisdictional retail sales by that utility in 2019; and
>
> For the time period 2026 through 2028, and for every successive three-year period thereafter, the Commission shall establish new energy efficiency savings targets.

It is unclear, at this time, whether the Commission will apply the targets on a "gross" savings or "net" savings basis. Gross savings account for all energy efficiency savings achieved; whereas net savings are gross savings adjusted for market effects. Although the Company and parties to the 2021 DSM proceeding sought a determination from the Commission whether the savings targets would be measured on a net or gross basis, the

Commission concluded through the 2021 DSM Final Order, "when Dominion seeks findings on the savings achieved for purposes of this statute, the Company must factually establish the amount of savings that occurred *as the result* of its programs and measures."[2] In the 2022 DSM proceeding, the Commission adopted the Senior Hearing Examiner's recommendation to defer a ruling on the issue of "net" and "gross" savings until the Company's 2023 DSM proceeding.

Therefore, the Company will not know whether the target will be measured on a net or gross savings basis for the first savings target for calendar year 2022, until this proceeding, when a final order is entered in the third quarter of 2024. The Company, however, maintains its position that the VCEA savings target should be measured on a gross basis.[3]

Q. **In its Final Order in the 2020 DSM proceeding, Case No. PUR-2020-00274, the Commission directed that the Company's future DSM filings include "[an] exhibit measuring Dominion's actual and projected compliance or noncompliance with the total energy savings requirements in Code § 56-596.2, using both net and gross savings metrics." Has the Company done so in this proceeding?**

A. Yes. In my Schedule 3 the Company is presenting its current estimation of energy efficiency savings. It should be noted that this information reflects a snapshot in time and it does not yet incorporate all of the improvements to energy efficiency savings that will result from the Company's implementation of the many recommendations in the DSM LTP. The Company remains committed to doing everything practicable, in consultation

[2] 2021 DSM Update Final Order at 9 (emphasis in original).

[3] *See* the Company's Legal Memorandum filed contemporaneously with this filing.

with a full range of stakeholders, to identify additional programs and process improvements to increase energy savings. As shown in my Schedule 3 and in Tables 1 and 2 below, the Company achieved, and in fact, exceeded, the energy efficiency savings target of 1.25% established for 2022 on a gross basis. On a net basis, the energy savings achieved are just below the 2022 target at 1.23%.

Table 1

	YEAR	VCEA Target MWh	VCEA Target %	DSM1-8 MWh	DSM9 MWh	DSM10 MWh	DSM11 MWh	DSM12 MWh	Opt-Outs MWh	DSM %
Net at Meter	2022	852,892	1.25%	776,335	4,154	-	-	-	58,754	1.23%
	2023	1,705,783	2.50%	1,002,445	79,192	60,671	-	-	59,855	1.8%
	2024	2,558,675	3.75%	1,160,067	165,870	178,878	37,210	-	60,955	2.3%
	2025	3,411,567	5.00%	1,186,909	251,179	343,743	89,556	19,748	62,055	2.9%

Table 2

	YEAR	VCEA Target MWh	VCEA Target %	DSM1-8 MWh	DSM9 MWh	DSM10 MWh	DSM11 MWh	DSM12 MWh	Opt-Outs MWh	DSM %
Gross at Meter	2022	852,892	1.25%	1,220,054	4,781	-	-	-	58,754	1.9%
	2023	1,705,783	2.50%	1,485,665	91,548	66,352	-	-	59,855	2.5%
	2024	2,558,675	3.75%	1,663,322	194,941	195,075	40,048	-	60,955	3.2%
	2025	3,411,567	5.00%	1,691,387	295,668	371,684	98,056	23,943	62,055	3.7%

All values exclude NC and non-Jurisdictional DSM reductions

Q. Is the Company entitled to a margin on energy efficiency operating expenses for 2022 as a result of exceedng the savings target of 1.25%?

A. Yes, Va. Code § 56-585.1 provides the following:

> Beginning January 1, 2022, and thereafter, if the Commission determines that the utility meets in any year the annual energy efficiency standards set forth in § 56-596.2, in the following year, the Commission shall award a margin on energy efficiency program operating expenses in that year, to be recovered through a rate adjustment clause, which margin shall be equal to the general rate of return on common equity determined as described in subdivision

In addition, § 56-585.1 states that "[t]he Commission shall also award an additional 20 basis points for each additional incremental 0.1 percent in annual savings in any year achieved by the utility's energy efficiency programs approved by the Commission . . . beyond the annual requirements set forth in the [VCEA]." As shown in the table above, the Company achieved 1.9% of energy savings on a gross basis, which is 65% in excess of the savings target of 1.25%. Therefore, the Company has added an additional 20 basis points for each additional incremental 0.1 percent in annual savings, resulting in a 1.2% adder for the True-Up. Company Witness Justin A. Wooldridge provides additional support on the Company's calculated margin in his pre-filed direct testimony.

Q. Please describe how the Company's customer awareness initiative is designed to enhance program performance and increase energy savings.

A. The LTP emphasized the significance of a broad customer awareness campaign on the Company's ability to achieve the VCEA energy savings targets. To that end, the Commission approved the Company's request to direct funding toward improving customer awareness and marketing as well as program enrollment in the 2021 DSM Final Order. This increased funding is expected to drive greater awareness, changes to improve customer experience, and enrollment in DSM Programs. Several updates and additional enhancements have taken place throughout 2023. As discussed in Company Witness Terry M. Fry's Direct Testimony Schedule 1, 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.

Additionally, as noted above, the Company has actively engaged with the DSM stakeholder group by providing updates on the customer awareness campaign, which is led by the Company's partner, the West Cary Group. The open dialogue between the Company and stakeholders evolved into a customer awareness subgroup that is administered by a Commission-hired independent moderator. Most recently, on October 26, 2023, the independent moderator invited stakeholders to review the proposed marketing concepts developed by the West Cary Group for the Company's customer awareness campaign and solicited their feedback to understand customers' preferences in marketing messaging. The results of this customer awareness survey will be utilized by the West Cary Group and the Company to continue to inform a strategic marketing campaign for its DSM Program portfolio.

Q. **Has the Company engaged its implementation vendors regarding ways to enhance program performance and increase savings?**

A. Yes. The Company has continued to host vendor summits for its numerous program implementation vendors to ensure consistency with its communication and the importance to cross-promote its DSM programs. The intention of the vendor summits is to create a collaborative work environment for all the Company's implementation vendors by providing ongoing coordination and information to ensure that all parties involved are maximizing opportunities to inform customers about the range of available energy efficiency options available to them through the general awareness campaign and the Company's robust DSM program portfolio offering. For more details and specifics on the vendor summit, please refer to Company Witness Fry's Direct Testimony Schedule 1.

Q. The LTP also identified strengthening the continuous improvement framework as a way to potentially enhance program participation and increase savings. Please address the Company's efforts in this regard.

A. Strengthening the continuous improvement framework requires the Company to assess, improve, and track the effectiveness of our Programs' design and delivery. This helps the Company optimize Programs over time. The Company is in regular and consistent communication with its implementation providers to gauge performance of the Programs and discuss opportunities for improvement where needed. The Company is also actively coordinating with DNV to conduct several baseline reviews and impact evaluations.

Moreover, the Company's consultant, Cadmus, has begun process evaluations for two programs, as part of its strategic undertaking outlined in the LTP. This step directly aligns with the recommendation in the LTP that targeted process evaluations of high-priority Programs would help the Company to optimize Programs and continually improve their effectiveness. The process evaluations were conducted on the DSM Phase VIII Small Business Improvement Enhanced Program, as well as the two program components that will comprise the recently approved Residential Home Retrofit Bundle, the DSM Phase VII Residential Home Energy Assessment Program and the Phase VIII Home Retrofit Program. More details regarding these process evaluations are provided in the LTP Project Management Report, Company Witness Terry M. Fry's Direct Testimony Schedule 1. The Company will continue to work with Cadmus on the next steps to complete and finalize the process evaluations for these two programs, and incorporate the findings into its program operations, where practicable.

Q. Also, as part of the VCEA, Virginia Code § 56-596.2 indicates that at least 15% of energy efficiency program costs should be designed to benefit low-income and elderly, disabled individuals, or veterans. With the filing of this Application, what is the Company's progress towards this goal?

A. As detailed and supported by Company Witness Bates, including the Phase XII Programs, the Company is progressing toward this statutory goal with these program costs comprising 13.7% of its DSM Portfolio costs.

Q. Separate from the VCEA energy efficiency savings targets, the GTSA requires the Company to propose a minimum of $870 million towards energy efficiency between 2018-2028. With the filing of this Application, what level of energy efficiency specific spending has the Company proposed?

A. As detailed by Company Witness Bates, and inclusive of the programs proposed in this Application, the Company has proposed approximately $797.0 million (including $84.1 million requested with this Application) of spending on energy efficiency programs since the passage of the GTSA, meaning the Company is well on its way to meeting the proposed spending target.

IV. COST RECOVERY REQUEST

Q. Please provide an overview of the Company's cost recovery request.

A. With this Application, the Company requests recovery through Riders C1A, C2A, and C4A of (i) Rate Year costs associated with its Phase II, III, IV, V, VI, VII, VIII, IX, X, XI, and XII Programs ; and (ii) True-up of actual costs and revenues for the period of January 1, 2022 through December 31, 2022, for eligible programs through a Monthly True-Up Adjustment.

The total revenue requirement requested in this proceeding is $92,622,744 and is detailed in Company Witness Justin A. Wooldridge's pre-filed direct testimony. Company Witness Emilia L. Catron addresses the proposed allocation methodology for the revenue requirement, which is consistent with the methodology previously approved by this Commission. Lastly, Company Witness Casey R. Lawson presents the Riders C1A, C2A, and C4A and associated estimated customer bill impacts.

V. ADDITIONAL COMPLIANCE WITH THE COMMISSION'S ORDERS

Q. As applicable to this proceeding, please discuss the Commission's Final Order in the 2020 DSM proceeding, Case No. PUR-2020-00274, the Company's 2021 DSM proceeding, Case No. PUR-2021-00147, and the Company's 2022 DSM proceeding, Case No. PUR-2022-00210, and how the Company has complied with the directives therein.

A. In the 2020 DSM Final Order, the 2021 DSM Final Order, and the 2022 DSM Final Order, the Commission directed the Company to comply with certain requirements. Please see the table below for a summary of how the Company complied with each filing requirement relevant to this instant filing.

Filing Requirement (Order)	Company Compliance
Provide an exhibit measuring the Company's actual and projected compliance or noncompliance with the total energy savings requirements in Va. Code § 56-596.2, using both net and gross savings metrics (2020 DSM Final Order)	As mentioned above, my Schedule 3 provides the requested information.
Provide information reflecting how EM&V plans are developed in conjunction with DSM program design rather than after such DSM	Please see the direct testimony of Company Witness Dan Feng.

Filing Requirement (Order)	Company Compliance
programs are implemented (2020 DSM Final Order)	
Provide with its next DSM filing a chart that summarizes the following for all active programs through the end of the True-up period: (i) total incentives; (ii) incentive cost per participant; (iii) non-incentive cost per participant; (iv) margin cost per participant; (v) total cost per participant; and (vi) the percentage of margin and non-incentive costs in relation to total costs (2020 DSM Final Order)	Please see the direct testimony of Company Witness Jarvis Bates and his related schedules for the requested information.
Provide detailed supporting cost information for the measures included in its IAQ Programs going forward (2020 DSM Final Order)	Please see the direct testimony of Company Witness Michael Hubbard for the requested information. Specifically, please see his Schedules 1 – 4 for the supporting costs of the IAQ Programs.
Calculate return on equity ("ROE") only for purposes of the True-Up and do not include margin as part of the calculation for the Projected Cost Recovery Factor; exclude margin for Company's operations and maintenance ("O&M") costs until the Commission determines the Company has met its annual energy efficiency standards and margin will be applied as part of the future true-up (2020 DSM Final Order)	Please see the direct testimony of Company Witness Justin A. Wooldridge for the requested information and his related schedules.
Provide additional information in future EM&V Reports to evaluate how programs are performing (2021 DSM Final Order)	Please see the direct testimony of Company Witness Dan Feng.
Include updated cost/benefit analysis of the DSM programs, along with a comparison of the updated cost/benefit analysis to the original cost/benefit analysis when the Program was approved, as well as the results of cost/benefit analyses from prior EM&V Reports (2021 DSM Final Order)	Please see the direct testimony of Company Witness Rachel L. Hagerman and her related schedules.
Refer the issues regarding how the cost-effectiveness of DSM Programs is currently	As mentioned above, please see my Schedule 2 for the Company's

Filing Requirement (Order)	Company Compliance
measured, including: (i) how the Inflation Reduction Act will reduce the cost of some DSM Programs; (ii) how the inclusion of non-energy benefits (e.g., the social cost of carbon) can better quantify the benefits for all programs and bundles; and (iii) how building codes impact the measurement of cost-effectiveness of DSM Programs, to the Stakeholder Group and require a report from the Company on these issues in next year's DSM case (2022 DSM Final Order)	Stakeholder Engagement Report.
Include the same health and safety measures in both the Residential and Non-Residential IAQ Bundles (2022 DSM Final Order)	Please see the direct testimony of Company Witness Michael T. Hubbard.
Provide a Project Management Report as part of its annual DSM filing detailing what tasks were completed in the last twelve months, what tasks will be completed in the next twelve months, and what tasks remain to be completed to fully implement the Long-Term Plan (2022 DSM Final Order)	Please see the direct testimony of Company Witness Terry Fry. Specifically, please see his Schedule 1 for the LTP Project Management Report.
Refer the issue of dual-fuel customers to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case (2022 DSM Final Order)	As mentioned above, please see the Company's Stakeholder Engagement Report filed contemporaneously with this filing.
Refer the issue of the LTP and DSM Program consolidation to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case (2022 DSM Final Order)	As mentioned above, please see the Company's Stakeholder Engagement Report filed contemporaneously with this filing.
Refer the issue of leveraging the functionalities of Advanced Metering Infrastructure including geo-targeting, in demand-response programs to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case (2022 DSM Final Order)	As mentioned above, please see the Company's Stakeholder Engagement Report filed contemporaneously with this filing.

Q. In Case No. PUR-2020-00156, which reviewed the Company's EM&V practices, the Commission directed additional filing requirements with respect to the Company's DSM updates. Has the Company adhered to these requirements?

A. Yes. Company Witness Dan Feng addresses the additional filing requirements issued by the Commission in the EM&V proceeding and how the Company complied with the necessary requirements for this DSM Update filing. Please see the table below for a summary of how the Company complied with each filing requirement relevant for this instant filing.

Filing Requirement	**Company Compliance**
Provide an executive summary dashboard in the December filing and in May with the EM&V Report, which will present a summary of the Company's 2022 DSM Portfolio performance	As noted above, please see my Schedule 1 for the requested information.
Provide a sample data chart for existing and proposed programs, which will present a mix of verified persistent savings and projections for future years	Please see the direct testimony of Company Witness Michael Hubbard for the requested information. The data chart is provided as his Schedule 7.
File the EM&V Report in the Company's December DSM filing (in electronic form for the December filing) and in May[4] of the docket of the prior complete DSM update case	Please see the direct testimony of Company Witness Dan Feng. Ms. Feng sponsors the EM&V Report as her Appendix C. The EM&V Report is provided electronically on an eRoom designated for this proceeding.

[4] On May 13, 2022, the Commission granted the Company's motion to extend the filing date of its EM&V Reports from May 15to June 15each year. *Petition of Virginia Electric and Power Company, For approval of its 2021 DSM Update pursuant to § 56-585.1 A 5 of the Code of Virginia*, Case No. PUR-2021-00247, Order on Motion (May 13, 2022).

Q. Lastly, in the 2017 DSM Final Order, the Commission directed the Company to (i) conduct biennial internal audits of the controls surrounding incentive and rebate payments with regard to each of the Company's DSM programs, and (ii) provide to Staff the audit report with supporting documentation, including a detailed description of how the audit findings have been addressed. Please comment.

A. The Company completed the most recent internal audit this year and results are being finalized. Once available, the Company will provide the findings to Staff. Company Witness Jarvis Bates briefly describes the Company's compliance with this directive.

VI. INTRODUCTION OF COMPANY WITNESSES AND SUMMARY OF REQUESTS

Q. What other Company witnesses are filing direct testimony in this proceeding?

A. The Company is pre-filing direct testimony of the following eight witnesses in addition to my own:

- Company Witness Michael T. Hubbard will present testimony regarding the status of the Company's approved and active DSM Programs and address the Company's efforts to bring forward cost-effective program designs in our current case. Company Witness Hubbard will also provide an update on the Company's quality assurance and quality controls process for its DSM Programs.

- Company Witness Rachel L. Hagerman will discuss the Company's processes for screening and selection of DSM Programs, including screening criteria for evaluation of DSM Programs. Company Witness Hagerman will also present the results of the cost/benefit test results for the Phase XII Programs and provide updated cost/benefit test results for the ongoing DSM Programs.

- Company Witness Jarvis E. Bates will provide cost projections for the Rate Year and proposed cost caps for the Phase XII Programs. Mr. Bates will also present the actual costs of the approved DSM Programs.

- Company Witness Justin A. Wooldridge will present the revenue requirement for Riders C1A, C2A, and C4A over the Rate Year, including the True-up for calendar year 2022.

- Company Witness Emilia L. Catron will explain the Company's allocation and assignment of costs for its DSM Programs to the Virginia Jurisdiction and customer classes.

- Company Witness Casey R. Lawson will present the calculation of Riders C1A, C2A, and C4A.

- Company Witness Dan Feng of DNV will sponsor the EM&V Plans for the proposed Phase XII Programs.

- Company Witness Terry M. Fry of Cadmus presents the Company's LTP Project Management Report and provides testimony supporting the use of gross savings to determine the Company's compliance with the energy savings targets in Va. Code § 56-596.2.

Q. Please summarize the requests the Company is making with this 2023 DSM Application.

A. The Company's Application in this proceeding requests the following approvals from the Commission:

- Authorization to offer four new Phase XII DSM Programs to eligible customers and approval of modifications to the eligibility criteria for the Non-residential Small Business Improvement Enhanced Program and measures of the Non-residential Midstream Energy Efficiency Products (EE);

- Approval of the aggregate Phase XII DSM Program cost cap of $102.4 million, the individual cost caps presented by Company Witness Bates, and the ability to exceed the cost cap by no more than 15%;

- Authorization to operate Phase XII DSM Programs without a predetermined closure date;

- Approval to use only the gross savings metric to measure the Company's actual and projected compliance or noncompliance with the total energy savings requirements in Va. Code § 56-596.2, as recommended by the Company's LTP;

- Approval of the Rate Year beginning September 1, 2024 and ending August 31, 2025;

- Approval to recover the Phase VII and Phase VIII true-up calculated in this proceeding and related financing costs, as well as any ongoing financing costs related to previous Over/Under deferral balances pertaining to the Phase VII and

VIII Programs in Rider C4A and ultimately end the C3A rate adjustment clause;

- Approval of a revenue requirement of $92,622,744 to be recovered through revised Riders C1A, C2A, and C4A over the Rate Year;
- Approval of the same allocation methodology as previously-approved in the 2022 DSM proceeding;
- Approval of the Company's request to continue Riders C1A, C2A, and C4A to be effective for billing purposes on the latter of September 1, 2024, or the first day of the month which is at least 15 days following the date of any Commission order approving Riders C1A, C2A, and C4A; and
- Approval of Phase XII Program EM&V Plans.

Q. Does this conclude your pre-filed direct testimony?

A. Yes, it does.

APPENDIX A

BACKGROUND AND QUALIFICATIONS
OF
DAVID F. WALKER

David F. Walker is Director of Strategic Customer Programs for Dominion Energy Virginia's Power Delivery Group. He is responsible for delivering Demand-Side Management ("DSM") programs for the Company as well as program development and deployment of rural broadband infrastructure within the Company's regulated service territory in Virginia. Additional responsibilities include management and support of the Company's Grid Transformation Plan fiber deployment and Energy Conservation initiatives.

Mr. Walker joined Dominion Energy Virginia in 2001 as a Customer Projects Designer in the Distribution Design organization, and has held various roles in Finance, Six Sigma, Energy Marketing, Customer Service, and Key Accounts. In July 2019, Mr. Walker was promoted to Director of Key Accounts and then was moved to oversee the Rural Broadband Program in August 2021.

Mr. Walker holds a Bachelor of Science from Radford University and a Master of Business Administration from Virginia Commonwealth University.

DNV

DEV DSM Dashboard

Dominion Energy

2022 at a Glance

Total Programs

Residential:	20
Business:	15

*Note - Phase X Programs Launch '23

Total Participants

Residential:	333,301
EE Products - Bulbs/Appliances	5,163,385
Business:	1,407

kWh Saved - Portfolio

Net:	149,325,787
Gross:	294,191,074

* Annualized Savings

kW Saved - Portfolio

Net:	264,813
Gross:	404,780

Progress Towards $870M GTSA Goal
$712.9 M Proposed

Progress Towards VCEA Savings Targets
As a percentage of 2019 sales

2022 Net MWh	780,508	1.23%*
2022 Gross MWh	1,224,868	1.9%*
2019 VA Jurisdictional Sales MWh	68,231,332	

*Includes 58,754 MWh for Opt Out Customers

Annual Spend
Portfolio
$65.2 M

Annual Spend
IAQ Programs
$18.5 M

* Includes $12.4M for HB2789 HVAC / Solar

Total Customer Bill Savings

Residential:	$28,837,668
Business:	$5,689,109

DSM Related Emission Reductions (Metric Tons CO_2)
Total 460,589

Energy Saved Since Inception
Portfolio

Net MWh:	5,592,994
Gross MWh:	8,192,582

Company Exhibit No. __
Witness: DFW
Schedule 1
Page 1 of 1

231250005

Virginia Electric and Power Company

DEMAND-SIDE MANAGEMENT PROGRAM STAKEHOLDER ENGAGEMENT REPORT DECEMBER 8, 2023

INTRODUCTION

Pursuant to Ordering Paragraph (1) of the August 4, 2023 Final Order of the State Corporation Commission of Virginia ("Commission") issued in Case No. PUR-2022-00210 ("2022 DSM Order"), Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company") hereby files this Report on its demand-side management program.

Specifically, Ordering Paragraph (1) of the 2022 DSM Order adopts the findings and recommendations of the Senior Hearing Examiner's Report dated June 16, 2023. Paragraphs 12, 24, 25, and 26 of the Senior Hearing Examiner's Findings and Recommendations area as follows:

> (12) Refer the issues regarding how the cost-effectiveness of DSM Programs is currently measured, including: (i) how the Inflation Reduction Act will reduce the cost of some DSM Programs; (ii) how the inclusion of non-energy benefits (e.g., the social cost of carbon) can better quantify the benefits for all programs and bundles; and (iii) how building codes impact the measurement of cost-effectiveness of DSM Programs, to the Stakeholder Group and require a report from the Company on these issues in next year's DSM case;
>
> (24) Refer the issue of dual-fuel customers to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case;
>
> (25) Refer the issue of the LTP and DSM Program consolidation to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case
>
> (26) Refer the issue of leveraging the functionalities of AMI, including geo-targeting, in demand-response programs to the

Stakeholder Group and require a report from the Company on the issue in next year's DSM case.

INITIAL REPORT

As directed by the 2022 DSM Order, on October 23, 2023, the Company and the Stakeholder Group met to discuss the four referred topics.

Prior to the October 23, 2023 meeting, Lena Lewis, Energy and Climate Policy Manager for The Nature Conservancy Virginia Chapter, submitted a memo to the independent moderator for the Stakeholder Group providing comments regarding each of the recommendations referred to the stakeholder group, including suggestions as to the contents of the report required by the 2022 DSM Order. This memorandum is attached hereto as Appendix A.

At that meeting, stakeholders requested an opportunity to provide written feedback to Dominion Energy Virginia regarding the four topics referred to the stakeholder process by the Hearing Examiner from the 2022 DSM Order. From October 26 to November 17, the independent moderator used an online survey to gather stakeholder input. The survey contained a total of 29 questions provided to the independent monitor from stakeholders, including the Company. The feedback collected and compiled by the independent monitor is attached as Appendix B to this Report. The feedback includes stakeholder suggestions and recommendations, as well as potential objectives and challenges regarding the four topic areas.

Utilizing this feedback, the Process Subgroup (a formal subgroup of the Stakeholder Process) will: (1) develop a plan to provide a more comprehensive response to the four topics, including the process that the stakeholder group will use to conduct more in-depth research and discussion or other activities needed to thoroughly respond to the recommendations; and (2) establish a schedule for the process with anticipated meeting dates (as determined by the stakeholder group) to provide further input for the more comprehensive report on each of the recommendations. The Process Subgroup anticipates meeting in January 2024, to develop the plan and schedule.

The summary report on each of the four recommendations will be submitted with the Company's 2024 DSM Update filing.

Appendix A

To: Ted Kniker, Facilitator of the Dominion Energy Efficiency Stakeholder Group

From: Lena Lewis, Energy and Climate Policy Manager, The Nature Conservancy Virginia Chapter

RE: The Role of the Stakeholder Group and Content of the Reports Required by the SCC Final Order for Dominion's DSM Phase XI Filing

Date: Oct 3, 2023

Introduction

The SCC's Final Order for Dominion's DSM Phase XI Filings[1] adopted four recommendations (numbers 12, 24, 25 & 26) from the Hearing Examiner's Report[2] referring specific issues to the Dominion Energy Efficiency Stakeholder Group for consideration. The four recommendations also require Dominion to submit reports after the Stakeholder group considers the issues. From the Final Order, it is not clear what the Stakeholder Group must do to "consider" the issue or what must be included in Dominion's report. The Hearing Examiner's Report gives more context leading up to each of these four recommendations, providing some guidance to how the Stakeholder Group should proceed and what the reports should contain.

Below, I list each of the four recommendations, followed by the portion of the Hearing Examiner report leading to that recommendation. I have put a few parts of those passages in **bold because I think they provide insight into the Hearing Examiner's intentions for the Stakeholder Group and report.**

I then follow each passage with *my own commentary, written in italics.*

Recommendation 12

Refer the issues regarding how the cost-effectiveness of DSM Programs is currently measured, including: (i) how the Inflation Reduction Act will reduce the cost of some DSM Programs; (ii) how the inclusion of non-energy benefits (e.g., the social cost of carbon) can better quantify the benefits for all programs and bundles; and (iii) how building codes impact the measurement of cost-effectiveness of DSM Programs, to the Stakeholder Group and require a report from the Company on these issues in next year's DSM case

<u>Relevant Portions of the Hearing Examiner's Report</u>

Page 68:

11. DSM Phase XI Programs and Program Bundle Cost/Benefit Scores.

[1] August 4, 2023 https://www.scc.virginia.gov/docketsearch/DOCS/7tw%2501!.PDF
[2] June 16, 2023 https://www.scc.virginia.gov/docketsearch/DOCS/7swj01!.PDF

The Company requested approval of its cost/benefit scores presented by Company witness Hall for the Phase XI Programs and Program Bundles and the going forward cost/benefit scores for existing programs, which may be found in Schedules 4, 5, and 7 of his direct testimony. Staff and Consumer Counsel do not oppose the Company's request for approval of its cost/benefit scores.[354]

APV had no position on this issue.[355]

VAEEC believes the Company's cost/benefit scores should be adjusted upward to reflect: (l) how the Inflation Reduction Act will reduce the cost of some DSM Programs; and (2) how the inclusion of non-energy benefits (e.g., the social cost of carbon) can better quantify the benefits for all programs and bundles.[35]

I recommend the Commission approve the Company's cost/benefit scores presented by Company witness Hall for the Phase XI Programs and Program Bundles and the going forward cost/benefit scores for existing programs. Consistent with VAEEC witness Hamish's direct testimony,[357] **I further recommend that the Commission refer the issues regarding how the cost-effectiveness of DSM Programs is currently measured, including the two issues identified above and the other issue regarding the impact of building codes identified in VAEEC witness Harnish's testimony, to the Stakeholder Group and require a report from the Company on these issues in next year's DSM case. At present, any impact of the Inflation Reduction Act on the cost-effectiveness of DSM Programs would be purely speculative.**

Page 34:

Lastly, Ms. Hamish addressed how the cost-effectiveness of DSM Programs is currently measured, which she believes merits further discussion in the stakeholder process. She noted Virginia is unusual in that it assesses cost-effectiveness at the individual program level, whereas most jurisdictions evaluate at the overall portfolio level. **In an effort to make the test scores more accurate, she recommended accounting for non-energy benefits ("NEBs"), including the social cost of carbon, among the benefits included in the analyses. She also expressed concern about the inappropriate reliance on building codes as energy-efficiency baselines, which would significantly under-count program energy savings.** She noted that the appropriate baseline should be the existing efficiency of the building or equipment, and recommended that the Company perform baseline studies of proposed programs. Finally, Ms. Hamish observed the Inflation Reduction Act and Bipartisan Infrastructure Law present significant funding opportunities that should also be accounted for in cost-effectiveness analyses.

<u>Commentary</u>

The Hearing Examiner's Report states that the Stakeholder Group should consider the issues of

1) *Accounting for non-energy benefits (NEBs), including but not limited to, the social cost of carbon in the cost-benefit tests*
2) *The reliance of building codes as baselines instead of buildings' existing efficiency*
3) *The impact of the Inflation Reduction Act and Bipartisan Infrastructure Law on the cost-effectiveness analysis.*

I interpret the Hearing Examiner's recommendation of a report to mean that all three of these topics are thorough discussed in the report. The report would probably need to include:

1) material from an expert presenter

2) stakeholder questions, comments, and recommendations

3) presenter responses to stakeholders

4) company responses to stakeholders

For example, if an expert presenter says, "this is best practice for calculating costs and benefits," and a stakeholder recommends that the company adopt the best practice, then the Company needs to give an informative answer as to why or why not they plan to adopt the best practice. All those questions, recommendations, and responses should be recorded in the report.

Note the last sentence in bold on page 68: "At present, any impact of the Inflation Reduction Act on the cost-effectiveness of DSM Programs would be purely speculative." This sentence implies that, at least on the topic of the IRA, the report should be submitted in December 2024, not 2023. A report in December of 2023 would still be soon enough to be purely speculative.

Recommendation 24

Refer the issue of dual-fuel customers to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case;

<u>Relevant Portions of the Hearing Examiner's Report</u>

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Stakeholder Group

1. <u>Dual-fuel Customers</u>

VAEEC raised the issue of dual-fuel customers and their ability to participate in the Company's DSM Programs. VAEEC recommended that the Commission consider directing the Company to expand program eligibility for dual-fuel customers. Alternatively, VAEEC recommended opportunities for dual-fuel customers should be explored in the stakeholder process. VAEEC believes expanding tine pool of eligible customers not only leads to substantial increases in kWh savings, which can be applied toward the Company's VCEA targets, but also extends energy-saving options and provides a better customer experience to more customers.[468]

In his rebuttal testimony, Company witness Frost committed to discuss with Staff and stakeholders the recommendation to expand the pool of eligible DSM Program participants by removing restrictions that prevent customers who use both gas and electric appliances in their homes from participating.[469] **At the hearing, Company witness Frost stated the issue of dual-fuel customers is "complex" and it is something the Company would like to discuss with stakeholders to make sure everyone understands the issue.**[470]

The Company provided a discovery response in which it listed the participation thresholds for dual-fuel customers, for all the proposed Phase XI Programs and Bundles, based on information received from the program design vendors:

- Non-Residential Prescriptive Program Bundle: Eligible to fully participate.
- Residential Home Retrofit Bundle: Eligible to partially participate.
- Residential IAQ Bundle: Eligible to partially participate.

The Company provided a discovery response in which it listed the participation thresholds for dual-fuel customers, for all the proposed Phase XI Programs and Bundles, based on information received from the program design vendors:

- Non-Residential Prescriptive Program Bundle: Eligible to fully participate.
- Residential Home Retrofit Bundle: Eligible to partially participate.
- Residential IAQ Bundle: Eligible to partially participate.

I recommend the Commission refer the dual-fuel issue to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case. **It appears the Company may miss the VCEA savings targets in 2024 and 2025. Opening all the Company's DSM Programs to its dual-fuel customers may have an immediate and measurable impact on achieving those savings targets, but the record is not fully developed on any complexities associated with this issue.**

<u>*Commentary*</u>

The Hearing Examiner strongly points out that the company may miss the VCEA savings targets in 2024 and 2025 and that opening the Company's DSM programs to its dual-fuel customers is one way to have an "immediate and measurable" impact on achieving those savings targets. My interpretation of the Hearing Examiner's recommendation of a report is that the Hearing Examiner wants the Company to fully develop for the written record the complexities that have thus far led to their decision not to serve dual-fuel customers. A report to the SCC should contain a full explanation of those complexities and a consideration of pathways to serve dual-fuel customers with electric energy efficiency programs. From a stakeholder perspective, it would be preferable that report include stakeholder recommendations, but that does not seem to be the emphasis of the Hearing Examiner.

Mr. Frost "believes the issue is complex, but the Company would consider a path forward to increase participation in its DSM Programs by its dual-fuel customers" (page 51). He offered in his rebuttal testimony that he would "like to discuss the issue with stakeholders and make sure everyone understands the issue" (Hearing Examiner's words, page 88). If the issue is not strictly legal in nature, I encourage the facilitator to create room for stakeholder discussion of how to overcome the complexities so that more Dominion customers may be served. The recommendations in the discussion should be recorded, if not for this report, then for the facilitator's annual report, and the Company responses should be recorded as well.

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Recommendation 25

Refer the issue of the LTP and DSM Program consolidation to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case;

Relevant Portions of the Hearing Examiner's Report

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2. The LTP and DSM Program Consolidation.

The Commission approved the LTP in the 2021 DSM Case.[472] The LTP provided an overarching strategy for the Company to achieve its DSM Portfolio objectives. Cadmus recommended the Company focus its efforts on three general strategies: (1) restructure the portfolio; (2) increase program awareness; and (3) create a continuous improvement framework.[473]

Cadmus recommended that the Company restructure its DSM Portfolio by consolidating its existing 37 DSM Programs into seven overarching programs designed around a logical customer journey. Cadmus recommended offering three residential programs, one IAQ program, and three non-residential programs, each with multiple ways in which customers can engage with energy-efficiency programs. Cadmus recommended the following seven programs:

- Residential Efficient Products Program;
- Residential Energy Services Program;
- Residential New Construction Program;
- Residential IAQ Program;
- Small Business Solutions Program;
- Large Business Solutions Program; and
- Non-Residential New Construction Program.

The issue of DSM Program consolidation was raised by APV and VAEEC. APV witness Grevatt discussed the LTP, its program offerings, and the Company's efforts to bundle offerings to streamline the program. He believes the Company must do more to streamline program offerings. Even with bundling proposed in this case, the Company will have 36 distinct programs and program bundles, 20 distinct residential programs and 16 distinct non-residential programs, that it "plans to market... as distinct offerings," with the hope that its marketing plan would "aid in creating a more uniform and streamlined approach to communications with customers."[474]

Mr. Grevatt believes that for programs that will eventually be bundled, the Company could develop and implement a bundled marketing approach in advance of carrying out the administrative step of functionally bundling the programs. He believes this would move Dominion closer and faster to the consolidated program model proposed in the LTP and provide customer communications with more clarity of purpose.[475] Mr. Grevatt believes a detailed project management plan would show how the Company intends to consolidate the contracts with vendors, consolidate the marketing efforts, and consolidate the customer application process.[476]

VAEEC witness Harnish addressed the LTP and DSM program bundling in her direct testimony. She mentioned Staff Interrogatory 05-106 asked about stakeholder involvement in program bundling. The Company's response to that interrogatory is included as Attachment CH-3 with her direct testimony. Ms. Hamish explained the development of program bundles is a perfect example of how the stakeholder process has worked well. In reviewing the Company's LTP last year, several stakeholders were concerned that the Company was not planning to move fast enough to address the need to streamline programs as recommended in the LTP. She noted the Company took that feedback into account and introduced four new program bundles with plans to continue to bundle more programs, where cost-effective, in the future.[477]

Ms. Harnish previously testified how bundling makes a program more attractive to a broader and more diverse group of customers. She explained the bundling approach helps to recruit contractors, as bundled programs provide more opportunities for vendors to get into households and serve more customers than they otherwise could through implementation of isolated, individual measures or programs. She believes the more attractive the overall bundled program is to customers, the more popular it is also going to be for contractors. Ms. Harnish explained not only does bundling make measures more popular - it also increases their cost-effectiveness. For example, program bundles provide the opportunity for contractors to visit a home to perform an energy assessment, recommend opportunities for equipment or building shell upgrades to the homeowner, and even install measures in a single visit. Unbundled, those same energy-efficiency savings might require three or four visits, often by multiple contractors, which would make them less cost-effective.[478]

Company witness Frost indicated the Company was willing to discuss with stakeholders additional opportunities to bundle programs, where practicable.[479]

I recommend the Commission refer the issue of the LTP and DSM Program consolidation to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case. **It appears the Company may miss the VCEA savings targets in 2024 and 2025. Accelerating consolidation of the Company's DSM Programs so that the "seven overarching programs designed around a logical customer journey" recommendation in the LTP are achieved earlier, may have an immediate and measurable impact on achieving those savings targets.**

<u>Commentary</u>

Here again, the Hearing Examiner uses clear, strong statements to point out that the Company is on track to miss VCEA targets and suggests a path to help meet them: accelerate consolidation recommended in the Long-Term Plan. He goes into further detail, indicating that the "seven overarching programs are designed around a logical customer journey." This indicates that the work of the Stakeholder Group is to help design the logical customer journey and give input and feedback about which measures and programs can be bundled into the seven overarching programs. I think the members of this Stakeholder Group can give very useful input into the logical customer journey.

Based on the Hearing Examiner's report, an expected outcome of this process would be an expedited schedule of consolidation, resulting in an accelerated pace of near-term energy savings. That plan and the anticipated increase in near-term energy savings should be included in Dominion's report to the SCC. The input, feedback, and recommendations made by the stakeholders should be recorded in that report, along with thorough responses by the company. The stakeholder recommendations recorded should not be limited to program proposals but should include all recommendations that stakeholders propose to improve the process of delivering energy efficiency programs.

Recommendation 26

Refer the issue of leveraging the functionalities of [Advanced Metering Infrastructure], including geo-targeting, in demand-response programs to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case.

Relevant Portions of the Hearing Examiner's Report

Page 91

3. AMI Meters.

In her direct testimony, VAEEC witness Hamish explained there are opportunities to leverage the functionalities of AMI in demand-response programs. The Company could potentially achieve its peak-shaving goals at a lower cost if it examined customer behavior through AMI data. Ms. Harnish recommended utilizing AMI data for a geo-targeted Peak Time Rebate Program that: (i) identifies service areas that are chronically capacity constrained and focuses greater marketing efforts to achieve greater participation in those areas; (ii) identifies customers with load profiles that suggest substantial potential for peak usage reductions and targets marketing at those customers; and (iii) bundles the program with energy efficiency programs to offer targeted incentives to customers for installation of load-reduction measures.[480]

In its Post-Hearing Brief, VAEEC noted that AMI technology provides insights on customer energy usage that may be useful in improving DSM program design.[481] VAEEC believes AMI customer usage data may permit the Company's DSM programs "to achieve their goals at lower cost and with greater impact."[482] VAEEC believes "AMI must be leveraged to identify and target the greatest opportunities for energy savings."[483] VAEEC requested that the Commission order the Company to develop additional AMI-dependent programs for inclusion in its DSM Phase XII filing.[484]

In its Post-Hearing Brief, the Company expressed its appreciation for VAEEC witness Harnish's recommendations in her testimony. The Company committed to discussing with stakeholders the use of geo-targeting to reach customers in areas with low participation rates.[485] With regard to Ms. Harnish's recommendations related to leveraging AMI, the Company stated it would explore these opportunities as grid transformation matures and AMI is fully deployed.[486] The Company requested that the Commission not issue a finding on AMI or the use of geotargeting, at this time, as the issue is better suited for the stakeholder process.[487]

I recommend the Commission refer the issue of leveraging the functionalities of AMI, including geo-targeting, in demand-response programs to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case. Time is running out for the Company to significantly increase the level of participation in its DSM Programs and the level of energy savings those programs achieve. I believe the Company does not have the time to sit back and address the issue as part of its grid transformation program, and for that reason, I am recommending that the issue be referred to the Stakeholder Group for consideration and analysis.

<u>Commentary</u>

This is the Hearing Examiner's strongest statement: "Time is running out . . . the Company does not have time to sit back . . ." Additionally, the Dominion requested that the SCC not make a ruling on AMI and said this issue is better suited for the stakeholder process. The Hearing Examiner's recommendation is to refer the issue to the Stakeholder Group for "consideration and analysis." This indicates that the Stakeholder Group, or a subgroup, should fully engage in an analytical process and develop solutions together with the Company. To do this, stakeholders will need sufficient access to information ahead of meetings. The process of how this group will proceed should be developed soon, before the group begins its work, so that both the Company and other stakeholders have a mutual understanding of the role that all stakeholders will play.

Based on the Hearing Examiner's report, a logical outcome of the stakeholder process would be a report to the SCC that contains a DSM program or pilot project based on AMI. The accompanying report should contain information presented by the Company to Stakeholders, information presented by experts to stakeholders, comments, recommendations, and outcomes of discussions of stakeholder meetings, and thorough company responses to stakeholder recommendations. A record of stakeholder recommendations should not be limited to recommendations of program proposals but should include all substantive recommendations. The report should then conclude with how the Company used the stakeholder process, including how stakeholders took part in analysis (not just received a report on the analysis done by the company), to arrive at the resulting AMI DSM program.

Appendix B

DEV DSM Final Order Recommendations

Stakeholder Input

Contents

DEV DSM Final Order Recommendations

Stakeholder Input

Overview

At the October 23, 2023, Dominion Energy Virginia Energy Efficiency Stakeholder meeting, the stakeholders requested an opportunity to provide written feedback to Dominion Energy Virginia (DEV) regarding the four recommendations referred to the stakeholder process by the Hearing Examiner from DEV's final order.

From October 26 to November 17, the independent monitor used an online survey to gather stakeholder input. The survey contained a total of 29 questions that had been provided to the independent monitor from stakeholders, including DEV.

The survey was sent to 309 stakeholders. Of the group, 11 stakeholders provided responses for a response rate of 3.6 percent. Not all stakeholders responded to each question, so the number of responses per question and per recommendation vary by stakeholder interest.

The independent monitor has organized the report in the following way: Under each recommendation, each related question is presented with a summary of all responses to the question and then the individual responses are presented in their entirety.

Overall Summary of Stakeholder Responses to All Questions: The stakeholders' feedback can be summarized in several key points. They emphasized the need for better coordination and consolidation of Dominion Energy's programs to streamline efforts and improve performance. They also highlighted the importance of including non-energy benefits in program evaluations, such as improved comfort, health benefits, and job creation. The stakeholders also discussed the potential impact of IRA funds on program participation and suggested that these funds could enhance the cost-effectiveness of the programs, accelerate participation, and increase the number of participants. They stressed the need for improved marketing and outreach efforts to increase program awareness and participation. The stakeholders also suggested aligning vendor contracts with program bundling for better efficiency. They recommended better utilization of AMI data for geotargeting and demand response programs. They also pointed out the need for clearer information on IRA funding opportunities and the importance of considering the social cost of carbon in cost-effectiveness analysis. Lastly, they emphasized the need for ongoing updates and improvements to the stakeholder process to ensure continuous alignment with best practices and regulatory impacts.

Recommendation 12

Refer the issues regarding how the cost-effectiveness of DSM Programs is currently measured, including:

- *how the Inflation Reduction Act will reduce the cost of some DSM Programs;*
- *how the inclusion of non-energy benefits (e.g., the social cost of carbon) can better quantify the benefits for all programs and bundles; and*
- *how building codes impact the measurement of cost-effectiveness of DSM Programs,*

  to the Stakeholder Group and require a report from the Company on these issues in next year's DSM case.

DEV DSM Final Order Recommendations

Stakeholder Input

1a- IRA funding impact on program costs and cost-effectiveness

Q1. What are your suggestions for ways in which Dominion could collaborate with State-administered IRA-funded activities?

Summary: The stakeholders have provided several suggestions for collaboration between Dominion and State-administered IRA-funded activities. These include coordinating on joint consumer education, contractor training, streamlined application and paperwork processing, and data sharing. They also suggest providing resources for consumer awareness, exploring federal and state funding options, adopting industry best practices for data sharing, developing energy efficiency programs for low to moderate income communities, and involving the State in coordinating programs. These suggestions aim to enhance the cost-effectiveness of Dominion's energy conservation programs, improve consumer awareness, and access to funding sources, and maximize the utilization of available funds through collaboration and coordination with State-administered IRA-funded activities.

9 Stakeholder Responses Received

- It should be part of the State's responsibilities and function of the State run IRA funded programs to determine how to best coordinate the programs with Dominion's and all other Commonwealth utilities' programs. Coordinating with the State operated programs should not be the responsibility or drain resources from the Dominion ratepayer funded programs. This assignment of responsibility to the State will also help ensure that IRA funds are more equitably distributed among the utilities. The State should be responsible for identifying synergies between the intent of the IRA programs and Dominion's programs.
- Dominion should investigate options available for federal and state funding, working with Virginia and federal agencies, to determine availability of relevant funds and ways to maximize utilization of such funds. The process should invite VAEEC and other groups to participate in discussions with the relevant agencies. Dominion has presumably already received reports and advice on opportunities. The funding may go beyond just the IRA, for example to include the Bipartisan Infrastructure Bill and preexisting tax benefits available to companies or to customers that implement energy efficiency and DSM measures.
- Virginia Energy and Dominion are already collaborating on possible interaction between the federally funded activities and Dominion's existing DSM programs. Federally funded activities administered by Virginia Energy include the Home Energy Rebate programs (IRA), a new low-cost energy efficiency financing program for homeowners and small businesses (BIL), and a consumer energy awareness initiative funded by an Energy Efficiency and Conservation Block Grant (BIL). Virginia Energy is committed to continuing to find opportunities for coordination as these new efforts are developed and launched. While the specifics of how the Home Energy Rebate programs will complement one another will depend on as-yet-undecided program design of the programs (e.g., income eligibility and contractor network selection), it is likely that some Dominion program participants will also be eligible for (an) IRA rebate(s). In this case, Virginia Energy and Dominion (and their third-party program implementers, as applicable) could coordinate on joint consumer education, contractor training, streamlined application and paperwork processing for consumers and contractors, and data sharing. Virginia Energy and Dominion should coordinate closely on how Home Energy Rebate programs can complement not only Dominion's programs as they are now, but also how they will operate after consolidation. All

incentive programs should provide a connection to low-cost financing (including as supported by a forthcoming state-sponsored program) when necessary and appropriate. Collaboration on consumer education can also extend beyond the consumers eligible for Home Energy Rebates. Virginia Energy recognizes the need for more information for consumers and contractors around new funding, including tax credits. There is opportunity to collaborate on how to provide useful resources without inappropriately providing tax advice. Virginia Energy intends to convene a working group around how to improve consumer awareness of and experience in accessing multiple energy improvement funding sources, including federal, state, utility, and local programs. Virginia Energy will include Dominion as well as participants in the DSM stakeholder group in this process, which is anticipated to take place throughout 2024.

- State-administered IRA funds could be used to develop new EE programs geared toward low to moderate income communities with a special focus on communities with low Energy Justice scores. Such a program could either augment existing Dominion LMI programs or serve as a basis for new opportunities to provide more robust measures.
- On the non-residential side, we do not yet have much information on what IRA money will be available for what types of projects and what requirements may exist around those funding opportunities. When these criteria become clearer, I would encourage Dominion to consider how customers can use their programs to meet the criteria around IRA funding and help further supplement project costs. For example - if IRA funding requires an energy audit or study, offer customers a partial audit reimbursement and additional incentives to complete the project. This would allow customers to unlock additional funding to move projects forward, while also benefiting Dominion by allowing them to claim savings on the project. Again, the funding criteria must become clearer before any of these decisions can be made.
- Dominion should adopt industry best practices (which address privacy and security) for data (energy, household, etc.) sharing to enable state (and other, e.g., federal WAP) program administrators to implement their programs as efficiently as possible. The SCC convened stakeholder meetings on data sharing some 5 years ago. I participated in those meetings. To my knowledge not one Virginia utility made any changes as a result of those meetings. It is commonly known that smart, secure utilization of energy data unlocks greater potential for EE, DR, reduced energy burdens, and greater energy customer satisfaction. With appropriate customer permission and data security procedures, Virginia could cost-effectively advance its reliability, cost, consumer choice, and environmental goals. Let's move swiftly on this.
- Encourage IRA-funding to go to the appropriate devices and/or scale incentives to reflect the EE or DR value of particular devices. Encourage more funding to go to customers less likely to make the purchase.
- Impact of IRA funding should enhance the overall cost-effectiveness of the energy conservation programs being offered to its ratepayers by Dominion Energy.
- Work with Virginia Energy to provide customer identification and energy use data to IRA rebate program administrators, so that Dominion customer participation in IRA programs can be tracked and proportional costs and savings attributed effectively. Co-promote Virginia Energy/administered HOMES and HEEHRA rebate incentives, and federal tax incentives, with Dominion program incentives, so that program participants make maximum use of all programs.

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Stakeholder Input:

Q2. How do you think Dominion might best collaborate with the State's implementation of IRA funds (in its rebate program and other initiatives) to lower program costs or make them more effective?

Summary: Stakeholders recommend that Dominion should collaborate with the State to allow customers to utilize Dominion programs to unlock IRA funds. This can be achieved by incorporating IRA benefits into Dominion program marketing materials. They also suggest working towards common goals with the State to leverage IRA funds and reduce the cost of designing and implementing programs. The IRA funds could be used to start a statewide Low-to-Moderate Income (LMI) energy efficiency program, similar to Maryland's EMPOWER program. Stakeholders also recommend developing a coordinated plan for marketing, outreach, engagement, intake, and customer journey support, including a customer web portal. They suggest facilitating data exchange, particularly past and ongoing customer energy consumption data, in accordance with industry best practices for data security and customer privacy. They emphasize that all IRA funds should go towards reducing net program costs and increasing savings to customers, and Dominion should make it easier to process jobs by reducing the number of photos required.

9 Stakeholder Responses Received

- Make it easier to process jobs, i.e., less photos.
- In designing and implementing their programs, Dominion should identify common goals and activities to leverage the IRA funds to reduce the cost of designing and implementing the programs, thus making them more likely to be cost effective.
- Dominion should not be allowed to pocket any IRA funds. Rather all those funds should go to reduce net program costs and to increase savings to customers. Dominion should be required to inform customers of savings opportunities and help them recover IRA and other funding available to consumers who implement energy efficiency measures. (Reference to answer in previous question (Dominion should investigate...)
- The IRA funds could be used to start up a statewide LMI energy efficiency program that is managed at the state level, similar to the way Maryland's EMPOWER program is set up. Dominion's funds could then feed into such a program, potentially resulting in a significant reduction in the overall overhead costs associated with these programs.
- Hopefully, Dominion and the State would be able to work collaboratively to allow customers to utilize Dominion programs to help unlock IRA funds. Dominion program marketing material could also include IRA benefits to make participation more attractive to customers. For example, measure charts could include additional information about IRA funding opportunities for certain measures or projects.
- Dominion likely will increase participation in its own programs should it choose to make it easy for those much more generous programs to smoothly integrate Dominion rebates into their system. Dominion should facilitate data exchange (particularly past and ongoing customer energy consumption data – in accord with industry best practices for data security and customer privacy/permissions) and ensure that IRA trade allies are approved to offer Dominion rebates. The IRA home energy rebates, for example, require tracking of participant energy data. Dominion (and all Virginia utilities) should swiftly implement "green button" (https://www.greenbuttonalliance.org) and "orange button" (https://myorangebutton.com/) standards for energy data sharing. Consumers in every region of Virginia will be learning about

and signing up for generous IRA-funded programs. Dominion's rebates will do well to ride on those coattails. The foremost IRA home energy rebate programs, HOMES and HEEHRA, specifically require that administrators provide participants with information about any other incentives that might benefit them. If it's easy for participants to incorporate the Dominion rebates into their overall energy retrofit plan, Dominion will see increased uptake of its rebates. Dominion can make that easy or difficult as it chooses, based on data sharing, system integration, and trade ally policies.

- Bundle rebates into their cost-benefit analysis and consider rebates alongside incentives for participation.
- Develop a coordinated plan for marketing, outreach, engagement, intake, and customer journey support. This could include a customer web portal that enables customers to understand all the options, choose the path best for them, and then have a supported experience through the process of applying for, getting assistance with, and seeing the benefits of participation. To the extent that IRA funds can take on most of the costs of such efforts, Dominion's costs would be reduced accordingly. Collaboration could also increase the number of measures installed per home. For example, if the VA Energy HOMES program causes the homeowner to install insulation and new HVAC equipment, a coordinated program portal could also induce them to install a smart thermostat and ENERGY STAR appliance. This could increase Dominion participation while also reducing marketing costs.
- Same as question above (Reference to previous answer, Virginia Energy and Dominion are already collaborating...)

Q3. How do you think the IRA funds might impact participation in Dominion Energy programs?
Summary: Stakeholders generally perceive the impact of IRA funds on utilities, specifically Dominion Energy programs, as positive. They believe that these funds could expand the reach of current measures or enable new ones, particularly in supporting energy efficiency improvements. The potential for IRA funds to lower costs to consumers is seen as a motivating factor for participation in Dominion Energy programs. Stakeholders also suggest that smooth integration of IRA programs with Dominion's own could boost participation. However, there are concerns that IRA rebates might outcompete Dominion incentives, potentially reducing participation. Therefore, stakeholders emphasize the need for effective outreach, marketing, and a positive customer experience, as well as collaboration between Dominion Energy and Virginia Energy to ensure coordinated promotion of both IRA and Dominion programs.

9 Stakeholder Responses Received

- The IRA funding can serve to reduce the cost of Dominion programs to ratepayers if well-coordinated and if duplication is avoided. If the result of IRA programs is to make consumers duplicate efforts or complicate participation, then they will effectively reduce participation.
- Lowering costs to consumers will encourage them to participate.
- The expanded energy efficiency tax credits enabled by the IRA may increase Dominion program participation because they motivate consumers, sometimes with support from contractors, to pursue energy efficiency projects that can also drive interest in Dominion programs. This impact will be primarily on the market-rate income consumer group that can monetize tax credits. Similarly, the impact of the IRA Home Energy Rebate and Dominion programs' impact on each other will likely depend on the extent to which the programs target the same consumers as well

as the extent to which the programs are successful in being co-marketed to those shared prospective participants. Virginia Energy aims to assist Home Energy Rebate program customers with access all available incentives, including from utility programs, so the state-sponsored programs are likely to increase participation for the consumer groups that qualify for Home Energy Rebates.

- The funds could be used as a "force multiplier", either by expanding the reach and coverage of current measures, or by using them to enable other measures to be implemented (much like the WDR program is intended to be used now). One example would be to provide new roofs for LMI customers that would otherwise qualify for the IAQ Solar program, or to increase the per-customer limit on system sizing (the current program limits customers to only 4.99 kW). They could also be used to support EE improvements in multifamily housing that the Dominion programs don't currently support - for example, installing Energy Star appliances and high efficiency lighting in common areas (e.g., laundry machines). In addition, IRA funds could be used to establish a statewide effort to market all LMI programs to residents and nonprofit agencies across the Commonwealth, removing this responsibility from Dominion. That would allow for a broader outreach effort, as well as further reducing program overhead.
- I suspect additional funds available could increase participation in Dominion programs, depending on the equipment or types of projects that can be incentivized and how Dominion programs might work to unlock IRA funding.
- Dominion likely will increase participation in its own programs should the utility choose to make it easy for the much more generous IRA programs to smoothly integrate Dominion rebates into their system. That means facilitating reasonable data exchange (particularly past and ongoing customer energy consumption data) and ensuring that IRA trade allies are approved to offer Dominion rebates. The IRA home energy rebates, for example, require tracking of participant energy data. Dominion (and all Virginia utilities) should implement "green button" and "orange button" standards for energy data sharing. If IRA rebate contractors are integrating Dominion rebates into their customers' energy upgrade plans as a matter of course (because it's simple and cost-effective to do so), then Dominion will enjoy increased participation in its programs.
- Should increase participation if the right models are incentivized.
- The IRA funds should help to accelerate program participation.
- IRA funds could increase Dominion program participation, if both IRA and Dominion programs are co-promoted in a coordinated, continuing, and effective manner. It's also true that IRA rebates will be higher than Dominion rebates for HVAC equipment especially, and will cover measures that Dominion programs don't cover, like building envelope improvements. The main risk is that IRA rebates will 'outcompete' Dominion incentives. For any of these programs, the effectiveness of outreach and marketing, and then the quality of the customer experience, will determine participation to a large extent. As above, I believe Dominion and Virginia Energy should collaborate on outreach, marketing, intake, and customer experience. One way to do this would be to create a well-designed customer web portal that guides customers to the right incentives for the right measures.

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Stakeholder Input

Q4. How do you think the IRA funds might impact availability of contractors and the work force to sustain existing services in Dominion Energy programs?

Summary: Stakeholders suggest that the availability of contractors could be a potential issue in the future, hence proactive planning is necessary. They believe that the IRA workforce development funds could aid in training more contractors in various fields to address current workforce shortages. However, the full impact of this may not be visible for a few years. The IRA funds are expected to increase market demand, thereby increasing the workload for contractors. The IRA programs in Virginia are anticipated to expand and improve the contractor network providing energy efficiency products and services. The rebates offered by the IRA are more generous than utility rebates, and the IRA policies require comprehensive energy audits, contractor training, and continuous improvement plans. This is expected to drive increased interest and uptake of the IRA home energy rebates, leading to an increase in hiring and training by energy efficiency contractors. The federal guidelines for the IRA's home energy rebates require Virginia to have a plan for ongoing provision of services once initial IRA funds are exhausted. This indicates that the statewide program will continue to promote and integrate all available utility rebates. The IRA funds could also be used to help offset the costs of training and certification for contractors. Lastly, stakeholders suggest that trade allies should have a coordinated way to participate in both Dominion and Virginia Energy programs to avoid feeling forced to choose one over the other. Continuity in the market is important to build and maintain contractors' interest, as some programs with short duration cycles have discouraged contractors in the past.

10 Stakeholder Responses Received

- Availability of contractors will be a problem going forward for several years.
- I have not seen any true availability issues, unrelated to COVID or wage requirements, to date in the market. If IRA funds increase demand for contractor services, the market should be capable of adjusting.
- Can't hurt.
- Availability of new funding to support energy efficiency in residential and commercial buildings is anticipated to strain the existing workforce providing related services in Virginia. One source of funding to help address this challenge is the IRA-funded Training for Residential Contractors (TREC) program grant, which in Virginia will be channeled through Virginia Energy. Virginia Energy can use its ~$3.4M, formula-based grant to train and educate contractors involved in the installation of home energy efficiency and electrification improvements, such as improvements eligible for rebates under the $8.8 billion Home Energy Rebates Programs. To access the funding, Virginia Energy will determine Virginia's residential energy efficiency and electrification workforce needs then submit an application that meets the needs of these workers and their communities. Virginia Energy will solicit stakeholder input on this grant in Q4 2023 and submit the application by January 31, 2024.
- They could be used to help offset the costs of training and certification.
- Hopefully, workforce development funds through the IRA will help with training more contractors in lighting, HVAC, and controls spaces to help remediate current work force shortages. However, this workforce development will take time and the full effect probably will not be apparent for several years.

- Virginia's IRA programs will both expand and improve Virginia's contractor network providing energy efficiency products and services for the following reasons:
  - The rebates are much more generous to participants than utility rebates.
  - IRA policies require – and fund – comprehensive energy audits, cost-effectiveness testing, rigorous quality assurance, contractor training, energy data tracking, and continuous improvement/market transformation plans.
  - IRA funds are not limited by utility jurisdiction, so marketing will be statewide and less confusing, thereby improving participation.
  - IRA funds are not limited by fuel source (electricity vs gas/propane/oil), so more participants can realize more generous benefits and increased savings from smart electrification. All of these factors will drive increased interest in and uptake of the IRA home energy rebates. That prolonged and significant boost to the demand for quality home energy services should drive an increase in hiring and training by EE contractors. Further, the federal guidelines for the IRA's home energy rebates require Virginia to have a plan for ongoing provision of services once initial IRA funds are exhausted. It seems safe to assume that this state-wide program will continue to promote and integrate all available utility rebates.
- It seems like contractors may have more funding but that also there will be contractor resource constraints working across utility service territories. It could be important to proactively plan for relationships and resource needs with contractors.
- The IRA funds should help to amplify demand in the market, thus amplifying the workload for contractors.
- This depends on the perceived balance between net revenue and cost of participation. If trade allies see one program as easier to participate in, that will draw them to it. And if a program shows that contractors can sell more jobs and bigger jobs, that might draw them to that program. Ideally, trade allies should have a coordinated way to participate in both Dominion and Virginia Energy programs, so they don't feel forced to choose. A related issue is the perception of continuity in the market. Some programs have discouraged contractors because they stop and start or have short duration cycles. By time some contractors learn about, sign up for, and start to use the program, it may end. Creating the perception that both Dominion and VA Energy programs will be in the market for many years will be key to building and keeping contractors/trade allies' interest.

Q5. What do you think are some implications of IRA funding for Dominion's program costs and performance?

Summary: The responses suggest several implications of IRA funding for Dominion's program costs and performance. Firstly, it could lower program costs and costs to customers, making programs more affordable and accessible. This could lead to an increase in customer participation and improved program performance. However, the diversity of participants may alter expected per customer performance. Secondly, there could be potential competition with other rebate programs, particularly the Dominion HVAC Health and Safety program. To avoid this, it is recommended that Dominion actively engage with VA Energy and DHCD to design an integrated approach to delivering services. Thirdly, the interaction of IRA funding with Dominion programs will depend on how the incentives are designed. If

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Dominion offers a streamlined process for state programs to incorporate the participant value of Dominion rebates, it could reduce overhead costs and potentially increase their rebate values, leading to higher uptake and cost-effectiveness. Lastly, the Total Resource Cost (TRC) framing could be improved if federal funds are treated as exogenous to the utility service area. However, the SCC will need to rule on program attribution and the resulting allocation of savings to avoid double counting of savings among programs. In summary, IRA funding has the potential to lower program costs, improve program performance, and expand program availability. However, careful consideration and coordination with other rebate programs are necessary to avoid competition and ensure efficient use of funds.

9 Stakeholder Responses Received

- This is totally dependent on how the State implements the funds.
- IRA funding would help lower program costs and/or costs to customers, thereby expanding availability of programs and encourage customers to participate. Dominion should help customers grab the savings.
- As stated above, the interaction of IRA funding with Dominion programs will depend in part on how the incentives are designed. Virginia Energy seeks to design the IRA Home Energy Rebate programs to add to, rather than displace, existing funding for energy efficiency. The programs are anticipated to be designed during Q1-Q3 2024 with a goal to be launched in Q4 2024 or Q1 2025. The IRA tax credits, on the other hand, are already established and can be included now in an impact analysis. The IRS is in the process of issuing final guidance on tax credits created and expanded by the IRA. In cases when a Home Energy Rebate (and tax credits, as applicable) does not cover the full cost of a project, a Dominion rebate will help the consumer cover a greater percent of the project cost. In some of these cases, the project cost remaining after applying a Home Energy Rebate may be small enough that the Dominion rebate can be reduced while still covering the full project cost. In cases when Home Energy Rebates cover the full cost of a project for which there is also a utility rebate, it may negate the need for a utility rebate.
- Hopefully, the funding will help improve program performance.
- I think that IRA funding will hopefully lead to increased participation, which will in turn lead to more cost-effective programs by reducing fixed admin costs per participant. This will require Dominion programs to work in collaboration with IRA requirements and offerings so that customers can easily navigate both. I do not think that Dominion should reduce their existing incentives structures or amounts due to IRA funding and should instead treat that funding as a bonus incentive to help customers to further offset project costs which have been rising rapidly due to inflation and other economic factors.
- Should Dominion offer a streamlined process for state programs to incorporate the participant value of Dominion rebates and thereby reduce overhead costs on Dominion's part, then Dominion's rebate values could be increased – which would further increase their uptake and cost-effectiveness.
- IRA funding may increase total program costs based on more people participating but could decrease cost/participant with scale. Cumulative performance should increase with more participants, but having more diverse participants based on lower entry costs may mean that expected per customer performance may be different than current assumptions.
- Cost-effectiveness will be enhanced as program performance increases.

- Dominion's programs don't heavily overlap the IRA HOMES and HEEHR rebate programs, except in the Dominion HVAC Health and Safety program, which is income-qualified. In some cases, HOMES or HEEHR rebates could compete with Dominion's program, and could reduce Dominion participation and total impacts. Dominion should actively engage with VA Energy and DHCD to design an integrated approach to delivering services for Dominion, HOMES. HEEHR, and federal WAP program. There are broader policy questions here on how Dominion's programs are treated in the context of federal funds. In some states, federal funds are treated as exogenous to the utility service area, and if they contribute to a given measure's installation, they are viewed as simply reducing utility costs. In a Total Resource Cost framing, this makes sense, in that TRC considers only benefits and costs experienced within the utility service area. So, for example, if a residential project cost $15,000, WAP contributed $6000, the HOMES program contributed $4000, and Dominion contributed $5000, in a TRC framing the total cost of the project could be viewed as $5000. That would improve the TTRC score substantially. But the SCC will also need to rule on program attribution and resulting allocation of savings. It could decide, for example, that if Dominion's share of the project is 1/3 based on its cost contribution, 1/3 of the savings should be attributed to the program. Federal and state policymakers, in a reasonable world, would want to avoid double counting of savings among programs. I recommend that a working group be established to define and advance options in this area.

Q6. What other questions need to be answered or information that needs to be provided related to IRA funding impact that will be important to include in the report to the Commission?

Summary: Stakeholders are generally interested in the following information related to IRA funding impact:

- A clear plan and timetable for using the funds and implementing programs by the State. This helps stakeholders understand the direction and timeline of the funding impact.
- Accountability and reporting from Dominion, the utility company, about the potentially available sources of funds and steps taken to maximize customer access to these funds. This ensures transparency and accountability in the utilization of IRA funding.
- Information about IRA funding opportunities for non-residential customers. Stakeholders want to understand the specific funding opportunities and benefits that IRA funding can provide to this group.
- The plans and progress of Virginia utilities in adopting green button and orange button data sharing protocols. These protocols enable data sharing related to energy consumption and solar energy, and stakeholders believe their adoption will maximize benefits for all Virginians.

4 Stakeholder Responses Received

- The plan and timetable for using the funds and implementing programs by the State must be clear and committed to before any changes are made to existing programs or procedures. The federal government nor the State have a good record of doing what is planned, so actions by others should not be committed until their activities are certain.
- Dominion should be required to report to the stakeholder group and the SCC the potentially available sources of funds and how it took steps to maximize customer access to such funds either directly from the government or indirectly through utility cost/rate reductions.

- 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-buttonr-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

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 (NEB)s 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 PCT[1]
- 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 Viriginia 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)

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- Dominion should be allowed to advocate for policy change like any investor-owned business. It should also be able to advocate for its customers on policies that affect the market. This does not mean that the cost of this advocacy should be directly born by the ratepayer.
- It should begin by using its flexibility to accelerate the transition to a zero-carbon energy system and to accelerate energy efficiency measures to reduce demands for electricity and polluting fuels that generate electricity. This would not require a change in law. ero emissions by 2045. Proposing a long-term plan that doubles its carbon emissions flouts the legislative goals of accelerating clean energy and energy conservation in Virginia. Its business choices will raise costs to customers and harm the public by extending climate emissions and dragging out the conversion to wind, solar and storage as distributed energy sources. Pretending that all will be solved by speculative small modular nuclear reactors while under-investing in already-proven solutions for renewable energy and efficiency is inexcusable. Maximizing EFFECTIVE energy efficiency and load-shifting is part of the solution but is not being effectively pursued. If Dominion doubts that it has business discretion to do more, then it should advocate for a legislative mandate to do more to accelerate Dominion should support proposals to mandate clean energy and to shift efficiency funding to an independent entity that would be tasked to use ratepayer funds to maximize energy savings.
- It would depend. As a regulated utility, it would be improper and unethical for them to advocate in favor of positions or policy changes that increase shareholder value or otherwise strengthen their position in the market. However, it would be proper to advocate for policy changes that improve the overall environmental and social sustainability and/or lessen the negative impacts of their businesses.
- I think Dominion should advocate for portfolio-level cost/benefit analysis. This would allow for a more comprehensive package of programs, including those that may target underserved or unique customers that may not be cost-effective as an individual program but are a valuable part of a robust portfolio.
- It is well known that Dominion has enormous political influence in Virginia. The utility certainly should advocate for Virginia to adopt the National Standard Practice Manual – which accounts for NEBs. With backing from consumer, environmental, efficiency, housing, and energy advocates, as well as Dominion, a bill to adopt the NSPM should easily pass through the General Assembly.
- Shift cost effectiveness testing to the portfolio level
- Yes, because getting these tests right and accounting for the most valuable ones from a system-wide perspective is important.
- Virginia's policy of requiring approval of 3 of 4 tests is overly burdensome. Limit to only having to meet the threshold of the TRC test, which encompasses considerations of the other 3 tests (Utility, Participant and RIM)
- Policy decisions on how federal funds are to be treated in TRC cost calculations, and how program attribution will be measured, along with allocation of savings among programs, should be advocated, hopefully through an SCC working group, and then a formal SCC decision.

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Stakeholder Input

Q9. How often would non-energy benefit inputs need to be updated?

Summary: Stakeholders raise several points regarding the frequency of updating non-energy benefit inputs. They highlight the constantly changing variables and assumptions involved in calculating these benefits, making it difficult to determine a fixed update frequency. Some argue that these benefits are arbitrary and unpredictable, making it challenging to establish a specific update frequency. Others emphasize the importance of annual updates to align with changing best practices and regulatory impacts. They also suggest that formulas for quantifying these benefits should be regularly updated using current, peer-reviewed scientific data. Stakeholders also point out the increasing costs associated with non-energy benefits, such as health care expenses and CO2 emissions, arguing for regular tracking and updates. Some propose updating these inputs during each DSM program filing cycle and each Integrated Resource Planning cycle. However, there is no consensus on a specific update frequency, with some suggesting every 2-3 years, but acknowledging that this may not capture the dynamic nature of these benefits.

6 Stakeholder Responses Received

- There are so many constantly changing variables and assumptions required to calculate non-energy benefits that the frequency of update is impossible to determine, let alone be fixed. This is why they are so arbitrary and, in most cases, should not be included.
- An annual basis to adjust for the total costs (including societal and environmental) of using extractive fuels.
- Annually, to keep pace with changing best-practices or regulatory impacts (i.e., for the societal cost of carbon).
- Formulas for quantifying non-energy benefits (NEB)s should be updated regularly by the appropriate state offices (Health, DEQ, Energy, etc.) based on current, peer-reviewed scientific data.
- Every 2-3 years?
- NEBs should be updated annually, or as quickly as data and analytics allow. The costs of health care, CO2 emissions, and other NEBs are increasing, and so should be regularly tracked and updated. At a minimum, NEBs should be updated during each DSM program filing cycle, and each Integrated Resource Planning cycle.

Q10. If the social cost of carbon is included in cost effectiveness analysis, what price should be used and why?

Summary: Stakeholders in discussions about the social cost of carbon raise several key points. They recognize the Intergovernmental Panel on Climate Change (IPCC) and the Interagency Working Group on the Social Cost of Greenhouse Gases (IWG) as authoritative sources for determining the social cost of carbon and emphasize the importance of staying current with their latest figures. There is a debate about the appropriate price to be used, with some arguing for the EPA's proposed midpoint cost of $190/ton and others advocating for the current cost used by the US Government for long-term planning of $51/ton. Stakeholders also highlight the importance of considering non-energy benefits when determining the social cost of carbon, emphasizing the irreversible dangers to health, safety, infrastructure, and welfare from climate change. They argue for factoring in the total social cost of carbon without excluding harms to people outside the immediate area. Some stakeholders express uncertainty about the appropriate value for the social cost of carbon and suggest relying on reputable organizations to provide a legitimate value.

7 Stakeholder Responses Received

- See answer above (reference to There are so many...). Determining a price not only depends on the analysis used, variables and assumptions made, but also on the definitions used in identifying them. You can throw a lot of rationale, calculations and equations at this, but in the end, it's still just a guess, and opinion as to if it is a best guess.
- Non-energy benefits should recognize the accelerating, compounding dangers to health, safety, infrastructure and welfare from climate change and the fact that they are essentially irreversible over a period of centuries. Future benefits from early action should be deemed to grow, not be discounted. Harms from delay would also grow. At a minimum, the total SOC should be factored in without artificial boundaries that exclude harms to people outside Virginia and the U.S. The current Administration EPA's SOC with no discount or, at most, a 3% discount rate should be included.
- Based on the draft EPA report, "Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances" https://www.epa.gov/environmental-economics/scghg, the social cost of carbon should be set at $190/ton.
- I think the cost that should be used is the current cost used by the US Government for long term planning of $51/ton, unless this amount is overridden by Virginia legislature. It should be periodically reviewed and updated to be consistent with government policy.
- The Intergovernmental Panel on Climate Change (IPCC) is the world's preeminent authority on this topic and regularly updates its social cost of carbon (equivalent). All policy must be clear that the metric is carbon equivalent – as other greenhouse gases are significant. Ideally Virginia would stay current with IPCC figures. Absent that, Virginia should look to the most recent cost established by the Interagency Working Group on the Social Cost of Greenhouse Gases (IWG). See https://costofcarbon.org/faq/what-is-the-scc and https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf.
- Not sure, but I would trust RMI or NRDC to have a legitimate value or maybe DOE?
- EPA's proposed midpoint cost of carbon is $190/ton; I believe this is the appropriate price because the current placeholder price of $51/ton is based on historical, not prospective data, and is already being exceeded in carbon markets around the U.S. and the world. The EU's Emission Trading System is the world's most fully functioning carbon compliance market; its prices are approaching $100. This is the clearest indication of where the cost of carbon is going.

Q11. What other non-energy benefits would you recommend, and how would they help to better quantify benefits of programs and bundles?

Summary: Stakeholders recommend a comprehensive approach to quantifying non-energy benefits (NEBs). They suggest assigning value to NEBs, considering factors beyond carbon, incorporating an Energy Justice / Environmental Justice score, and ensuring NEBs are program and measure-dependent. They also mention several other NEBs that could be considered, such as national security, mitigation of harms from storms, fires, floods, health benefits, protection of private property and public infrastructure, natural resources, agriculture, and ocean acidification. They emphasize the need for consistent guidance and a detailed framework to ensure accurate quantification of NEBs.

7 Stakeholder Responses Received

- None
- Others besides carbon, which could likely be better estimated than carbon, include effect on inflation (affordability), energy independence, cost of energy security, costs of disposal of wastes.
- National security; mitigation of harms from storms, fires, floods; health benefits; protection of private property and public infrastructure; natural resources, including wildlife and ecosystems; agriculture; ocean acidification -- among others.
- The Energy Justice / Environmental Justice (EJ) score of a community should also be taken into account. This would help promote reducing the impact of communities that are more heavily impacted by pollutants. If a resident or business is in an area with a high (poor) EJ score, it could be weighted against the costs of an EE project to reflect a greater societal benefit. https://www.energy.gov/promoting-energy-justice https://mappingforej.berkeley.edu/virginia/.
- This would need to be program, and even individual measure, dependent. For example, health and safety non-energy benefits may be appropriate for a demand-controlled ventilation measure, because it would make sure spaces are properly ventilated based on occupancy leading to fewer sick days and health issues. However, it may be more appropriate to apply a comfort-based NEB to a new compressor that is less noisy for nearby operators, for example. Many of these NEBs are also notoriously difficult to quantify and are open to interpretation. There would need to be a detailed framework decided upon by Dominion, DNV, and the stakeholders to provide consistent guidance for implementers. This would be a massive undertaking due to the variability in NEBs available for individual program measures.
- Currently we, de facto, assign a value of zero to NEBs, which is self-evidently inaccurate. Benefits should be counted as carefully as costs, including occupant health benefits, improved grid system reliability, increased resilience of buildings, ambient air quality benefits, reduced arrearages and associated costs to customers and utilities, increased productivity of building occupants, reduced absenteeism, hazardous waste reduction, reduced grid infrastructure needs, etc. See
    - https://www.mwalliance.org/sites/default/files/media/NEBs-Factsheet_0.pdf.
    - https://www.iea.org/reports/multiple-benefits-of-energy-efficiency.
    - Multiple Benefits of Industrial Energy Efficiency - Lessons Learned and New Initiatives (2019) - https://www.osti.gov/servlets/purl/1531223.
    - NEBs and their Role and Values in Cost-Effectiveness Tests (NRDC: 2014) https://assets.ctfassets.net/ntcn17ss1ow9/7hSd2GZVRtPoZKuks9WxDc/542eba6ac366f7edb45d54b8e6581af9/2014 NEBs report for Maryland.pdf.
    - Non-Energy Impacts Approaches and Values: an Examination of the Northeast, Mid-Atlantic, and Beyond (NEEP: 2017) https://www.puc.nh.gov/EESE%20Board/Final%20NEI%20Report%20for%20NH-6-2-17.pdf.

- Non-Energy Benefits of Energy Efficiency and Weatherization Programs in Multifamily Housing (GHHI: 2016) https://www.greenandhealthyhomes.org/wp-content/uploads/ghhi.pdf. Practically speaking, Virginia should simply adopt the NSPM.
- Savings related to better environmental factors, like air quality (health, biodiversity), savings related to well-being of humans based on reliability. Check out what Washington State has done with non-energy benefits. https://doh.wa.gov/sites/default/files/2022-02/333-274_CETACumulativeImpactsAnalysisWebinar_EN.pdf.

Q12. What other questions need to be answered or information that needs to be provided related to non-energy benefits that will be important to include in the report to the Commission?

Summary: The stakeholders identified several key points as important. They emphasized the acceleration of energy conservation efforts due to its potential benefits, such as reducing the impacts of climate change. They also highlighted the importance of cost reduction for customers, indicating their concern for the affordability of energy. Stakeholders acknowledged that energy conservation could reduce the need for investments to meet higher energy demands, optimizing the use of existing infrastructure. They also valued increasing comfort for customers, showing their concern for customer satisfaction. Administrative costs and the suitability of programs for non-energy benefit analysis were also considered important, indicating their focus on efficiency and feasibility. Lastly, they stressed the need for accuracy and reliability in non-energy costs, showing their commitment to data integrity and informed decision-making.

4 Stakeholder Responses Received

- If any non-energy costs are included, it is important that the costs have the same level of accuracy and reliability as other costs considered.
- Accelerating energy conservation will reduce harms from climate change; reduce costs for customers; reduce investments needed to meet higher loads; increase comfort for customers.
- I think the administrative cost of determining the NEB analysis guidelines for NEBs that are not as straightforward as the social cost of carbon, need to be weighed against the potential benefits. It may not be appropriate for all programs.
- None

1c- Building codes: what are impacts on measurement of benefits.

Q13. What baseline do you suggest be used for new building construction projects as an alternative to the current building energy code and why?

Summary: Stakeholders have varying recommendations for an alternative to the current building energy code for new building construction projects. Some suggest maintaining the existing code and incentivizing builders to exceed its requirements, particularly in terms of structural efficiency measures. Others recommend conducting detailed code-compliance studies to understand the actual as-built performance better. However, there is no clear consensus on a specific alternative. The data suggests the importance of maintaining the existing code while encouraging builders to exceed its requirements.

7 Stakeholder Responses Received

- Eliminate "red tape", make permit obtaining easier.

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- The current code has a long and well thought out process for implementing changes as well as application and compliance without over burdening cost of compliance. However, it must be kept in mind the cost of compliance relative to equipment life, current conditions, and the ability of the consumer to pay or care about long term energy savings.
- Not sure what you are asking. For general program evaluation: New buildings represent a very small portion of the building stock and will not significantly impact Dominion's load over a time period longer than the effectiveness of any individual DSM order. Virginia's building code is updated in a process that sometimes weakens building codes. In any event, new building codes generally are not made enforceable until 4-5 years after new national model codes are published. Virginia's code for rehabilitation of existing buildings runs far behind national model codes. For programs specifically for new construction: The existing code is the appropriate baseline, and incentives should be focused on getting builders -- large and small – to go beyond the code, specifically with respect to structural efficiency measures that will last for decades.
- I do not suggest alternative baselines unless a detailed code-compliance study was conducted in Dominion territory. Energy code remains the gold standard for new construction program analysis.
- It would be inappropriate to use any alternative to the Virginia building energy code being enforced at the time of construction.
- I would trust RMI as a resource for this information.
- Baseline studies should be conducted for new construction, to determine actual as-built performance. The Department of Energy has an established methodology for this, available at energycodes.gov. Because compliance rates typically lag nominal design standards, such studies would likely establish a lower baseline that current published state energy codes would provide.

Q14. In 'replace on burnout' equipment retrofit projects, what baseline do you suggest be used as an alternative to the minimum current equipment standard and why?

Summary: Stakeholders recommend several alternatives for the baseline in 'replace on burnout' equipment retrofit projects. These include considering the current market conditions for retrofit equipment, aligning with the federal minimum standards for the specific products being retrofitted, considering the functionality of the existing equipment, and setting the baseline at a level that is reasonable and achievable within the market. This suggests that the baseline should not necessarily aim for the highest-end or most expensive equipment, but rather should reflect a balance of factors including market conditions, regulatory standards, and practical considerations.

6 Stakeholder Responses Received

- In this situation, the current market for retrofit equipment (both supply and cost) will dictate the ability to comply. As a result, the current standard only needs to reflect the current market.
- The baseline should likely be toward the middle or lower end of legally marketed replacement equipment.
- I do not have an alternative to suggest.
- If the equipment already is non-functional, then the current minimum available standard becomes the baseline, because that is the only replacement option. However, this simple rule may not apply neatly when the energy upgrade package involves a more systematic change – such as a redesign, fuel-switch, etc.

- I would trust RMI as a resource for this information.
- For replace-on-burnout program designs, current federal minimum standards for covered products would be an appropriate baseline.

Q15. In 'retrofit' or 'early-retirement' equipment/building projects, do you suggest Dominion Energy continue to use existing conditions as a baseline? If not, then what baseline do you suggest?

Summary: Stakeholders generally recommend using the efficiency of the equipment being replaced as the baseline in retrofit or early-retirement equipment/building projects. They propose prorating costs and savings based on the age of the replaced equipment. If the replaced equipment is still working and has not reached its rated life, no discounting of costs or savings would apply. However, if the equipment is older than its rated life, total installed costs could be discounted, and savings would need to be calculated based on the SEER baseline for a certain number of years and then based on the SEER 14 federal standard baseline for the remaining years. Stakeholders also advise against relying on forecasts and projections for baselines, as they have proven to be unreliable. They believe that using the efficiency of the replaced equipment as the baseline is appropriate and consistent with programs across the country.

5 Stakeholder Responses Received

- Yes
- Yes. Forecasts and projections have proven to be unreliable, like cards, dice, Ouija boards and the 8 ball. Dominion cannot be asked to rely on projected baselines unless the State or ratepayers are willing to take the financial risk, which most are not.
- Yes. This is appropriate and consistent with programs across the country.
- I would trust RMI as a resource for this information.
- In such cases, the efficiency of the equipment replaced should be the baseline. For example, if a SEER 10 unit is replaced before the end of its useful life by a SEER 18 unit, the baseline should be SEER 10. Such cases would also call for proration of costs and savings based on equipment age. If the replaced equipment is 20 years old and still working, and the ASHRAE rated life is 18 years, no discounting of costs or savings would apply. But if it were 12 years old, total installed costs could be discounted by 2/3. Savings would need to be calculated for 6 years based on a SEER baseline, and then the remaining 12 years based on the SEER 14 federal standard baseline.

Q16. What other questions need to be answered or information that needs to be provided related to building codes that will be important to include in the report to the Commission?

Summary: The Commission needs to be informed about several key aspects of building codes. Firstly, it's crucial that all economic levels of consumers are considered when defining codes, assessing both short-term and long-term costs and benefits for different consumer groups. The baseline for building codes needs to be clarified to understand the standards or criteria used as a reference point for updates.

The impact of building code updates on older buildings should also be considered, particularly the cost and feasibility of retrofitting these buildings to meet new standards. The relevance of energy codes to Demand Side Management (DSM) programs needs evaluation, particularly in the context of net-zero building codes and the provision of clean power to buildings over their service life.

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Utilities should be engaged in the implementation of net-zero building codes, possibly through new tariffs for new buildings that include the provision of renewable power. Lastly, the commission should consider the impact of presenting alternatives to energy codes as appropriate baselines, including the potential impact on design teams and contractors who will be designing to code.

5 Stakeholder Responses Received

- Building codes need to consider all economic levels of consumer when defining codes. My 92-year-old mother really doesn't care if she will make back the extra cost of a heat pump in 15 years.
- See above answer describing limited short-term impact of building code updates. The older the building the farther behind they are. An important question is what is the baseline being used for?
- If alternatives to energy codes are presented as appropriate baselines, we need to consider the impact on design teams and contractors, who will be designing to code.
- As someone who has engaged with Virginia's energy code development and enforcement for nearly 15 years, I don't see how the energy code is particularly relevant to DSM programs – other than as a referenced baseline for incentives on new construction projects.
- Virginia, like other states committed to a net-zero carbon economy, needs to adopt and implement net-zero building codes, as states like New York are in the process of doing. In such a future, DSM programs would focus mostly on code compliance, and technical assistance to help designers and builders meet the new code. However, net-zero codes typically allow for third-party/offsite renewable energy to be used for the remaining energy use at the building site. Yet how that clean power would reliably be provided to that building over its service life is left unclear. Utilities cand should be engaged here, for example by creating new tariffs for new buildings, such that the provision of renewable power through high-quality RECs, community solar, or other mechanisms, would be included. This would provide a huge service to the Commonwealth by ensuring that net-zero energy codes work for the long term.

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Stakeholder Input

Recommendation 24

Refer the issue of dual-fuel customers to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case.

Q17. What are your suggestions for adjusting program features or program eligibility to increase participation in Dominion Energy's programs?

Summary: Stakeholders made several suggestions to increase participation in Dominion Energy's programs. They proposed offering incentives for increased building structural efficiency and for customers choosing to use electric appliances. They also suggested expanding the programs to include dual-fuel customers that do not have utility natural gas service and expanding the IAQ program to allow for the replacement of traditional gas-fueled storage water heaters with heat pump water heaters. Other suggestions included implementing AMI meters for gas and electric, streamlining, and automating program processes, providing trade allies with metrics for continuous improvement, using participant and program energy data to incentivize trade allies, extending eligibility to residents of multi-family buildings, and reducing bureaucratic burdens for trade allies. These suggestions aim to make the programs more inclusive, increase energy efficiency, promote electrification, and reduce barriers for participation.

8 Stakeholder Responses Received

- It's good as is.
- Other than the dual fuel issue, participation is a function of marketing and costs/ savings. Dominion should concentrate on these aspects of participation.
- Dual fuel customers have diverse fuel mixes, and some efficiency measures will reduce multiple fuel needs, while others will not. On the other hand, the public welfare is served by maximizing conservation of both electricity and other fuels. Also, all users of gas/propane for some appliances will still be electricity customers of Dominion. So, I suggest the following:
    - 1. Dominion offers incentives to increase building structural efficiency regardless of fuel type. (If that becomes burdensome (in fact rather than theory), the legislature (or possibly the SCC) could be asked to require cost sharing between electricity and gas utilities.
    - 2. Dominion offers incentives to customers choosing to use electric appliances whether they do now or not. 3. Dominion offers EV and solar incentives regardless of whether a customer is a dual fuel user, since electricity would be used in the future.
- If not already under consideration, the Dominion programs should also be expanded to allow for dual-fuel customers that do not have utility natural gas service. Many residents of Virginia use oil, propane, or kerosene as a second fuel. Replacing appliances that use these fuels with Energy Star-rated electric appliances not only increases their overall thermal efficiency, but also greatly improves the health and safety of those residents by removing a source of combustion in their homes. The latest IAQ program guidance allows for replacement of traditional electric storage water heaters with heat pump water heaters. The program should be expanded to allow for the replacement of traditional gas-fueled storage water heaters.
- To improve participation, and more to the point, overall effectiveness (net efficiency gains) of Dominion DSM programs, the program feature and eligibility adjustments I recommend include:

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Stakeholder Input

- Streamline/automate program processes to reduce overhead costs and use savings to increase rebate amounts,
- Provide trade allies with metrics that enable them to pursue continuous improvement of energy savings results,
- Use participant and program energy data to incentivize trade allies to increase participant energy savings (current trade ally incentives are based on jobs and measures, not actual energy savings),
- Extend eligibility for all market-rate residential programs to residents of multi-family buildings, and
- Reduce trade ally paperwork and other bureaucratic burdens to make it more attractive for additional contractors to offer rebates (many installers choose not to offer the rebates because their monetary value does not offset the installer's overhead costs – or perceived hassle – to participate in the program).

- Allow dual fuel customers to participate in pursuit of Virginia's long-term goals.
- AMI meters for gas and electric for anyone that wants to participate Electric and gas demand response programs.
- All customers should be able to participate in programs, regardless of their fuel mix. If there is a goal to increase electrification in certain end uses like building space or water heating, incentives should be increased accordingly. Per above comments (reference to Virginia, like other states...), increasing incentives may well require changes to cost-effectiveness test methods to fully capture the benefits of electrification.

Q18. For measures that might depend on both electric and non-electric fuel savings to be cost-effective (i.e., not cost-effective based on either energy source alone), how would you suggest Dominion Energy's programs consider such measures?

Summary: The stakeholders made several suggestions for Dominion Energy's programs that depend on both electric and non-electric fuel savings to be cost-effective. These include enabling legislation for a revenue stream, integration with existing programs, consideration of all fuel savings, shareholder incentives based on electricity savings, conversion of gas savings on an MMBTU basis, consistent pricing for different fuels, and joint marketing and administration of the measures. These suggestions aim to ensure adequate funding, effective coordination, alignment of incentives with specific goals, and fairness in evaluating the cost-effectiveness of measures.

6 Stakeholder Responses Received

- These measures, if implemented, should be jointly marketed, and administered by the involved utilities based on their fraction of savings, with Commission review.
- Look at total savings regardless of the use of multiple fuels. The customer and public will benefit from increased energy conservation.
- The program could look at the reduction in energy use in terms of kilowatt-hours or [therms] saved. This would remove the inconsistency in pricing for each fuel, whether it come from electric wires, gas pipes or a propane delivery truck. The aggregate change in energy use could then be set to an agreed upon cost; possibly the highest per-unit price of the energy sources in question.

- If Dominion is only using its own system savings and riders to pay for rebates, there would have to be enabling legislation to create a revenue stream providing compensation for measures that increase electricity usage while reducing participants' energy costs. At a minimum, Dominion should make its processes and data sharing protocols easily integrated with programs (such as the IRA's home energy rebates) that facilitate the retirement of fossil fuel-fired equipment.
- Allow for the conversion of gas savings on an MMBTU basis to support Plan savings goals.
- The SCC should not only take a total resource view of program cost effectiveness, it should frame DSM programs to include all fuel savings plus NEBs. The perspective for such analysis should be that of all Commonwealth energy users regardless of energy type. If there are to be Dominion shareholder incentives in the future, however, those should be based on a more restrictive frame in which electricity savings alone are included, and program costs prorated accordingly.

Q19. If such measures were to be included, how would you recommend Dominion Energy seek recovery of the benefits to other energy systems it would be partially subsidizing?

Summary: Stakeholders recommended that Dominion Energy should collaborate with regulators, legislators, advocates, and industry experts to create an efficient system for calculating and attributing all costs and benefits. They emphasized the importance of energy conservation and suggested that gas utilities could implement efficiency programs that benefit electricity users. They also advised against seeking recovery of benefits from Virginia fuel companies, arguing that any partial subsidizing would likely be offset by increases in revenue. They proposed that measures could be tailored to replace older inefficient equipment with new equipment, regardless of the fuel source. The stakeholders believed that the aggregate effect of such energy savings would outweigh any reduction in savings benefits.

5 Stakeholder Responses Received

- Virginia has a long history of prohibiting cross subsidizing or marketing a competitor's fuel. This also makes no sense for stockholders. As noted above, a method should be developed that prevents cross subsidization.
- That would be less important than increasing overall energy conservation, and gas utilities could be implementing efficiency programs that "benefit" electricity users. If this were to produce a real inequity or distortion (not a minor one), the issue could be taken up by the SCC or the legislature. The public would be hurt by delaying broad conservation incentives pending a drawn-out fight over a hypothetical problem, particularly when neither gas nor electric utilities really want to promote energy savings.
- I would not recommend they seek recovery. First, any "partial subsidizing" would likely be more than offset by increases in revenue. Second, measures could be tailored such that new equipment would replace older inefficient equipment regardless of the fuel source. For example, replacing traditional storage water heaters with either heat pump water heaters or tankless systems, or replacing cookstoves that use either resistance element coils or natural gas burners with induction ranges. The aggregate effect of such energy savings should more than offset the increased "reduction of savings benefits".
- Dominion should join regulators, legislators, advocates, and industry experts to devise an effective, efficiency system for calculating and attributing all costs and benefits as appropriate to advance the Commonwealth's energy policy goals, particularly the 2020 Clean Economy Act's provisions for increasing energy efficiency results and full decarbonization by 2045.

- What 'benefits' would Dominion seek to recover from Virginia fuel companies? They would primarily experience lost sales; for gas companies, Virginia has decoupled revenues from sales, as is the case in most states. That's because sales per customer have been declining for years, based on better building codes and more efficient appliances. So, Virginia's gas utilities would be made financially whole for any lost sales from electrification. There are larger, longer-term issues regarding the future of natural gas utility systems, which could incur significant stranded costs among other issues. However, those issues do not affect the question at hand.

Q20. What other questions need to be answered or information that needs to be provided related to dual-fuel customers that will be important to include in the report to the Commission?

Summary: Stakeholders have made several suggestions. They have expressed a preference for nudging towards electrification, indicating a belief that electric programs are more valuable and should be prioritized. They have also recommended that dual-fuel customers be included in rebate programs such as the IRA Home Energy Rebate programs, the comprehensive home energy efficiency rebate (HOMES), and the home electrification and appliance rebate (HEAR).

Furthermore, stakeholders support the promotion of higher efficiency and lower polluting technologies. They suggest that Dominion should be allowed to incentivize dual-fuel customers to switch to more efficient and environmentally friendly technologies, including the use of heat pumps for space and water heating, as well as clothes drying.

Lastly, stakeholders have raised concerns about cross subsidizing and the elimination of fossil fuel choice. They believe that the Commission needs to consider how to prevent cross subsidizing between utilities and ensure that the programs do not evolve into initiatives that eliminate the choice of using fossil fuels. However, they have not provided specific details or suggestions on how to address these concerns.

5 Stakeholder Responses Received

- This is ironic since most advocates also advocate eliminating all fossil energy use. The question the Commission needs to consider is how to prevent cross subsidizing between utilities and how to keep these programs from morphing into programs that eliminate fossil fuel choice.
- Dominion should be free to encourage dual fuel customers to switch to higher efficiency and lower polluting technologies, including heat pumps for space and water heating, clothes drying etc. The public and affected customers would benefit.
- Note that the IRA Home Energy Rebate programs will be open to dual-fuel customers. The comprehensive home energy efficiency rebate (HOMES) is a performance-based, technology-neutral program that could serve dual-fuel customers. The home electrification and appliance rebate (HEAR) is specifically aimed at beneficial electrification of low- and moderate-income households.
- None
- I think the preference is to nudge towards electrification, so slightly weighting electric programs as more valuable than gas programs could help (which is reflective of the sensitivities of the system).

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Stakeholder Input

Recommendation 25

Refer the issue of the Long-Term Plan and DSM Program consolidation to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case.

Q21. What are you hearing in the market about the program and portfolio consolidation in VA?
Summary: Stakeholders have expressed concerns about the complexity of the current 37 programs in VA, which has led to reduced participation. They believe that consolidating these programs into bundled portfolios would simplify them, making them more understandable and accessible. This is particularly seen as beneficial on the low-to-moderate income side, where it would allow for a more comprehensive approach to energy reduction and reduce administrative efforts. However, stakeholders also emphasize the need for Dominion to market these consolidated programs proactively across all its customers in the Commonwealth. While there is support for the idea of consolidation, stakeholders acknowledge that the process is happening slowly.

7 Stakeholder Responses Received

- For my market of commercial/ industrial customers, it is not an issue.
- Defer to Chelsea Harnish
- On the LMI side, consolidating the programs would be beneficial. It would allow providers to provide a more comprehensive approach to energy reduction and reduce the overhead and administrative efforts by the program providers / WSPs. However, it must be matched by a concerted effort by Dominion to market all of its programs across all of its customers in the Commonwealth; in this area, Dominion has traditionally put forth what could reasonably be called a "de minimus" effort.
- We are seeing more program bundles rolling out beginning here with DSM XI. However, there are some programs, at least on the non-residential side, that have significant overlap of measures and could be further consolidated.
- If, by "the market", you mean among regular consumers and businesses, I'm hearing nothing other than the complaints that led to the stakeholders advocating for consolidation: that the current mishmash of 37 programs is terribly complicated – and that fact alone reduces participation.
- Consolidating programs is the right thing to do to align efforts, but it's happening slowly.
- The market is confused already by the disparate nature of Dominion programs. The onset of IRA incentives could deepen and expand that confusion. The more that programs can be consolidated into bundled portfolios, the better the market will be able to understand and respond to them.

Q22. What is your understanding of the challenges of bundling programs in a DSM portfolio? What are your suggestions for mitigating these challenges?
Summary: The challenges identified by stakeholders in bundling programs in a DSM portfolio include aligning vendor contracts, inconsistent rebate amounts, participation issues, a stove piped structure, coordination of program management, and utility staff structure. To mitigate these challenges, stakeholders suggest careful planning and coordination, equalizing rebate amounts, addressing participation concerns before bundling, evaluating cost-effectiveness on a portfolio basis, and hiring a

single program administrator for effective coordination. In cases where programs overlap across multiple owners, proper planning and coordination are necessary to structure the utility staff appropriately.

6 Stakeholder Responses Received

- It seems to me that, if participation is an issue, now is not the time to consider bundling.
- Rebate amounts offered to providers and installers are not consistent. These must be equalized, but they must be done so at the highest amounts currently being offered; this should not be used as a means to set programs to the "lowest common denominator," if you will.
- One main challenge is aligning vendor contracts. Many programs have a 5-year term, which requires current contracts to run out before consolidation. At the same time, some programs will run out before others which requires shorter program lengths to prevent gaps in those programs. Startup and Administrative costs along with shorter program lives can cause re-filed programs to not be cost effective over the short term on an individual program basis.
- I understand that Dominion has standing contracts with program managers of existing individual programs. I would assume that these contracts include clauses for making necessary changes.
- where programs overlap across multiple owners, it may be hard to structure the utility staff appropriately in the short term. there may be re-contracting that's needed to change hierarchies of vendors and relationships to one another.
- Each program has its own market segment and technology targets, eligibility criteria, etc. This tends to create a stove piped structure in which each program operates alone. And each program must currently track its results and be evaluated for cost-effectiveness separately, which further pushes program administrators to treat each program separately. One fundamental change is to evaluate cost-effectiveness on a portfolio basis rather than on a per-program basis. this would ease program management processes by allowing costs to be shared more flexibly among programs, allow implementer staff to work on different programs, etc. Another fundamental is to hire a single program administrator, rather than procuring separate contractors for each program. The latter practice virtually ensures that management, record keeping, and other basics will be harder to coordinate. Multiple subcontractors could still participate by running programs where they have the best expertise, but having a single PA contractor would be important to consolidating program marketing, management, and evaluation.

Q23. What are the benefits of bundling programs in a DSM portfolio?

Summary: Stakeholders identified several benefits of bundling programs in a DSM portfolio. These include reduced overhead costs for trade allies due to better distribution of costs, more consistent messaging, and a clear path to participation for customers, better distribution of costs and inclusion of measures, flexibility with funding, reduction in startup and administrative costs, improved customer satisfaction, and greater program impacts. These benefits contribute to cost reduction, improved customer experience, streamlined operations, and increased program effectiveness.

6 Stakeholder Responses Received

- Reduced overhead for providers, more holistic offerings to customers, more consolidated marketing, and outreach efforts.

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- From a customer perspective, bundling allows for more consistent messaging and a more consistent path to participation. From a program/portfolio perspective, bundling allows for better distribution of costs and inclusion of measures or program aspects that may not be cost-effective by themselves but deliver customer value and are part of a robust portfolio. They also allow Dominion for more flexibility with funding - if one aspect of the bundled program is overperforming and needs more funding, money can be shifted from underperforming aspects of the program, which benefits customers and the programs as a whole. Right now, that flexibility is not available with individual programs. Finally, startup and administrative costs can be reduced by launching one larger bundled program instead of individual smaller programs year-after-year.
- It avoids needless confusion and excess paperwork. To my mind, one program design works for all circumstances: get an energy audit for your building/home and then make smart improvements with the financial help of utility incentives. To the extent that bundling gets us closer to that, it should reduce overhead costs for trade allies and drive an uptake in participation as potential participants can better understand their first step.
- I'm not an advocate, so I don't have an answer.
- Creating fewer sources of truth, encouraging collaboration and "whole customer" experience and evaluation. create consistency across efforts. cost-savings. reduce redundancy and confusion, easier marketing.
- Cost reduction--if there's one portfolio, management and market costs can be better shared and thus reduced. Customer satisfaction--having a single customer journey has been shown to improve customer sat scores Greater impacts--when the programs are branded, promoted, managed, and improved continuously under a single umbrella, their overall performance tends to improve. Maryland has generally taken this approach--treating programs in portfolio fashion, branding them under the single EmPOWER label, and in many cases, utilities use a single program administrator to deliver programs.

Q24. What other questions need to be answered or information that needs to be provided related to program consolidation that will be important to include in the report to the Commission?

Summary: The report to the Commission should include additional information on several aspects of program consolidation. This includes the specific goals and objectives of the consolidation, the current energy improvement funding sources available, the impact of consolidation on consumer awareness and accessibility, the timeline for the process, coordination efforts with stakeholders, potential challenges, and risks, expected benefits and cost savings, and how vendor contracts will be aligned with bundling in mind. Addressing these points will provide a comprehensive understanding of the consolidation efforts and their potential impact on energy improvement incentives and funding sources.

5 Stakeholder Responses Received

- As previously stated, Virginia Energy recognizes the need for more information for consumers and contractors around all available energy improvement incentives, which are expanding significantly following the passage of BIL and IRA. Virginia Energy intends to convene a working group around how to improve consumer awareness of and experience in accessing multiple energy improvement funding sources, including federal, state, utility, and local programs. Virginia Energy will include Dominion as well as participants in the DSM stakeholder group in this process, which is anticipated to take place throughout 2024. Given Dominion's intention to pursue program consolidation in part through streamlined marketing, Virginia Energy and Dominion should coordinate closely to ensure communications-related efforts are mutually reinforcing.

- Will Dominion strengthen its marketing and outreach of the new consolidated programs?
- Is Dominion beginning to align vendor contracts with bundling in mind and what does the proposal/bidding schedule look like for bundled programs in the next 5-10 years?
- I leave this to others who are more knowledgeable.
- None

Recommendation 26

Refer the issue of leveraging the functionalities of AMI [Advanced Metering Infrastructure], including geo-targeting, in demand-response programs to the Stakeholder Group and require a report from the Company on the issue in next year's DSM case.

Q25. Where have you seen effective use of AMI data for geotargeting in demand response programs, and are there useful techniques you can recommend Dominion Energy to investigate?

Summary: Stakeholders provided several examples of utilities and organizations that have effectively used AMI data for geotargeting in demand response programs. These include Central Hudson, which is exploring geotargeting for their managed EV charging program; NV Energy, which has implemented an AMI project called "NV Energize"; Baltimore Gas and Electric Company (BG&E), which has a smart grid initiative involving AMI data; Entergy New Orleans, which conducted an advanced metering infrastructure pilot project; and Detroit Edison, which has a project called "SmartCurrents" that uses AMI data. It would be beneficial for Dominion Energy to investigate these examples further to understand the techniques and strategies used in these successful implementations.

5 Stakeholder Responses Received

- I have not seen AMI data used for these purposes.
- Every county has AMI data, as do government agencies which often link benefits to AMI.
- I have seen success with utilities collaborating with the forecasting and operations departments to identify areas that are capacity constrained. These departments usually already have a good idea of where these areas are.
- To clarify, it seems to me that, if there is a communicating meter on-site, then geo-targeting can be done – or is de facto done. I'm not expert in this, so I did a quick internet search. These look like good places to start:
    - NV Energy (Nevada): https://www.smartgrid.gov/project/nv_energy_inc_nv_energize.html and some cautionary notes: https://www.utilitydive.com/news/slowed-pay-off-from-billions-in-ami-investment-put-the-technologys-future/570274/.
    - BG&E (Maryland): https://www.smartgrid.gov/project/baltimore_gas_and_electric_company_smart_grid_initiative.

- Entergy New Orleans: https://www.smartgrid.gov/project/entergy_new_orleans_inc_advanced_metering_infrastructure_pilot.
- Detroit Edison: https://www.smartgrid.gov/project/detroit_edison_company_smartcurrents Here's more from NARUC: https://pubs.naruc.org/pub/E333BEED-1866-DAAC-99FB-0ED2B7DC7AF6. In short, this is off-the-shelf technology that should be deployed at scale across Virginia ASAP. This document was referenced many times and comes from an industry leader: ACEEE's 2020 Leveraging Advanced Metering Infrastructure To Save Energy: https://www.aceee.org/sites/default/files/publications/researchreports/u2001.pdf.

- I think this is a pretty new concept, so I don't know who is doing it most effectively, but it's definitely worth looking into. I know that central Hudson is looking to geotarget for their managed EV charging program, and plan to compensate based on performance, but this doesn't always require AMI data.

Q26. Do you have suggestions for how an AMI-based initiative might be designed?

Summary: The stakeholders provided several suggestions for designing an AMI-based initiative. They suggested creating a best-in-class customer dashboard to allow customers to easily access and understand their energy usage data. They also recommended deploying behavioral energy efficiency programs at scale to encourage energy-saving behaviors. Making AMI energy data easily accessible and sharable was another suggestion, as this would enable energy auditors and DER aggregators to analyze the data and design programs for energy efficiency and peak shaving. Lastly, they proposed collaborating with Virginia non-profit organizations to leverage their expertise in enhancing the initiative. Overall, the stakeholders emphasized the importance of leveraging AMI data to inform decision-making, engage customers, and drive energy efficiency efforts.

4 Stakeholder Responses Received

- AMI collected data should be available and used to feed automated building energy management and controls systems to allow the systems to control energy use and costs.
- There are plenty of examples of AMI-based incentives. There should be incentives for all income groups, but potentially more for low-AMI customers. The problem is that many or perhaps most of them rent.
- As mentioned above, AMI could be used in conjunction with targeted area guidance from the forecasting and operations departments to target customers that could benefit from energy efficiency program intervention in capacity constrained territories. AMI is also useful to supplement information available in existing programs - particularly those that have an audit or study component. If the program is providing feedback to customers about their usage and opportunities, AMI can help provide a deeper understanding of a customer's usage profile and can lead to additional deeper insights above and beyond the feedback they are currently receiving from the program.
- Yes.
  - Create a best-in-class customer dashboard.
  - Deploy behavioral EE programs at scale.

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- Make customer AMI energy data easily accessible and sharable with energy auditors and DER aggregators who can design and implement programs for achieving EE and peak shaving – and then provide them with direct access to the PJM capacity market to earn revenue for verified results. Here's a great overview from ACEEE: Leveraging Advanced Metering Infrastructure to Save Energy (2020): https://www.aceee.org/research-report/u2001. Virginia non-profits could design a successful AMI program (or offer specific ideas to improve an existing one) if they were paid to do so.

Q27. What other questions need to be answered or information that needs to be provided related to AMI data and geotargeting that will be important to include in the report to the Commission?

Summary: The report to the Commission should include several key insights related to AMI data and geotargeting. These include addressing technology hurdles such as the availability and digestibility of AMI data for targeting opportunities, and the need for initial screening due to the large volume of data. The report should also discuss customer data security issues, including access to data and the option for customers to opt-in or opt-out of targeted programs. The potential for implementing off-the-shelf strategies like behavioral energy efficiency (EE) should be explored, along with the potential energy savings that can be achieved through behavioral interventions. The report should also emphasize the integration of AMI with other technologies for customer energy use analytics and demand response and highlight the potential of geotargeting for specific programs. Lastly, the report should address the challenge of sharing AMI data without compromising security or confidentiality and explore potential solutions for safe and confidential data sharing.

5 Stakeholder Responses Received

- How can Dominion share AMI data without creating security or confidentiality concerns.
- For DSM load management, the benefits should be spread around without as much regard for AMI since the main goal is load balancing and fuel cost mitigation.
- There are a few main hurdles from my perspective related to AMI data. The first is a technology hurdle. Is the data available in an easily digestible format that can then be used for targeting opportunities? Typically, the data needs to be presented visually at different time increments and times of year to be useful for targeting purposes. AMI can also provide a large volume of data - there needs to be some sort of initial screening to figure out where efforts are best focused. Second, there are customer data security issues to consider. Who gets access to the data and how? Are customer opt-in or opt-out of any targeted programs that use energy usage data? For current programs that use customer energy usage data, the customers explicitly grant access to program staff during the application process.
- When AMI infrastructure is in place, geotargeting comes at no added expense, the location is simply one of many filters that may be applied to a list of meters. Given that, the only question is how soon Dominion can implement off-the-shelf strategies such as behavioral EE (which Dominion piloted with OPower back in 2012) which is made much more effective by AMI. I'll note that matching behavioral program signals with tangible in-home energy upgrades has been shown to increase effectiveness of both strategies. See Integrated Energy Efficiency and Demand Response Programs (https://www.aceee.org/research-report/u1906) and Behavior Change Programs: Status and Impact (https://www.aceee.org/research-report/b1601). More on behavioral EE (which is enhanced by AMI), per a report from the International Energy Agency:

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"In the United States, potential energy savings from behavioral interventions in the residential sector are estimated at between 16% and 20% of home energy demand. In this region, the greatest potential savings come from regulatory adjustments to default temperatures for heating and cooling, as well as from hot water use. These types of behavior changes can be facilitated through feedback mechanisms and smart devices." (from https://www.iea.org/articles/the-potential-of-behavioural-interventions-for-optimising-energy-use-at-home)

- AMI need not be the only technology used to support customer energy use analytics and demand response. I signed up for Dominion's demand response program, using my Honeywell Wi-Fi thermostats' Resideo internet communications capabilities. Not only do I get notices for Dominion DR events, I get monthly/seasonal/annual energy use reports, based on my HVAC system's run times in heating and cooling modes. Resideo also recommends optimal thermostat settings for enabling energy savings outside of DR events, and the program includes a toggle option for opting into that. AMI enables analytics that examine all electric end uses in the home, vs. the HVAC-only data that Resideo can see and control. But the accuracy and value of smaller end use analytics is questionable; it's not year clear that without additional circuit-level sensors in the home, AMI can tease out smaller end use signatures from 'noise.' On geotargeting, this presupposes that implementation contractors will get sufficient access to customer end use data, whether it be AMI based or not. Assuming contractors are able to access customer data, having a single contractor at the portfolio level would allow integrated analytics that could not only support geotargeting for specific programs, but could also enable propensity analyses and virtual energy audits that could identify first-order potential for a wide range of measures to be beneficial for a given customer. That capability would enable better program targeting along with better geotargeting. But to work well, this approach would require a single program portfolio administrator, with the customer data and with the analytics expertise to use it effectively.

General Stakeholder Process Feedback

Based on suggestions from the stakeholder group, the survey also included two questions that allowed for open responses related to the general stakeholder process.

Q28. Please provide your input, feedback, ideas, or recommendations regarding other issues the stakeholder process should be addressing.

Summary: The key points raised by stakeholders include their satisfaction with the Stakeholder process, but they also highlight instances where Dominion has bypassed this process, such as with the implementation of the Enhanced IAQ Program. They suggest that energy conservation incentive programs should be proposed and implemented by an independent entity, not utilities, to avoid potential conflicts of interest. They also raise concerns about the industry credentials of trade allies conducting home energy assessments, urging Dominion to ensure these individuals and firms are properly licensed.

5 Stakeholder Responses Received

- None at this time.
- Programs for energy conservation incentives should be proposed and implemented by an independent entity, not utilities whose economic incentives are to build more facilities and sell

more power. Even DSM load management incentives would be better designed by an independent entity. Vermont provides an example.

- The Stakeholder process seems to be doing an incredible job in guiding and strengthening Dominion's overall DSM portfolio. However, there seem to be areas in which Dominion tends to ignore the process and go its own way. One recent example is in their IAQ program; they recently implements a small suite of EE measures and incentives (the Enhanced IAQ Program). While in general this is a good thing, several of the measures implemented did not come from either the LMI subgroup, or the Pilot process. Several of the measures could also be of dubious economic and EE value to the clients and the Company; had they gone through the Stakeholder process, it would be easier to ascertain their net benefits. It could be worth investigating if the Stakeholder process could have a bit more "teeth" regarding these programs - for example, any new measures must have been at least reviewed, if not approved, by the Stakeholder group before being considered to the SCC.
- Unrelated to the issues outlined in this survey, but I would like an update to the pilot program process launched earlier this year.
- The other issue that came out of the recent SCC hearing relates to industry credentials of trade allies conducting home energy assessments/analysis/audits. This also should be addressed by the stakeholders. Virginia law is unequivocal that both the individual performing the inspection and the firm employing that individual must be licensed. See https://law.lis.virginia.gov/vacode/title54.1/chapter11/section54.1-1144/. The key text: "No person shall engage in, or offer to engage in, work as a residential building energy analyst in the Commonwealth unless he has been licensed under the provisions of this article... "Residential building energy analysis" means.
    - (i) an inspection, investigation, or survey of a dwelling or other structure to evaluate, measure, or quantify its energy consumption and efficiency, including lighting, HVAC, electronics, appliances, water heaters, insulation, and water conservation, and
    - (ii) recommendations to reduce energy consumption and improve efficiency of a dwelling or other structure, including lighting, HVAC, electronics, appliances, water heaters, insulation, and water conservation for compensation conducted or made by a licensed residential building energy analyst.

  Dominion should promptly ensure that any firm or individual that their programs describe as providing some sort of energy inspection ("assessment", "investigation", "audit", etc.) shall be properly licensed. The law provides no distinction between "a quick walk-through" – as company staff have described the Residential Home Energy Assessment program – and an "inspection, investigation, or survey...to evaluate" the home's energy characteristics or needs. To date, many thousands of Dominion customers have received what they reasonably thought (based on the content of Dominion's website and the documents provided to participants) was a professional assessment of the energy efficiency potential for their home, when in fact the "assessor" was neither qualified nor licensed to conduct such an assessment.

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Q29. Please provide any other comments you have related to how to make the Virginia Energy Efficiency Stakeholder Process even better.

Summary: The stakeholders raised several ideas to improve the Virginia Energy Efficiency Stakeholder Process. They suggested active participation and feedback from SCC staff, inclusion of missing key constituencies like insulation contractors, better representation of affected communities, and more proactive subgroups. They also expressed frustration with the open-ended nature of some survey questions and suggested that Dominion should bring detailed ideas to stakeholders and compensate them for troubleshooting. They emphasized the need for improvement considering the significant time and effort invested by participants and the energy efficiency and zero-carbon targets set by Virginia law.

3 Stakeholder Responses Received

- None at this time.
- The Stakeholder Process is an incredible mechanism for gaining insight and providing feedback to Dominion's portfolio of DSM programs. The breadth and diversity of its participants and their backgrounds in this arena provide great strength. That said, it seems as if the subgroups aren't as proactive as they could be. I feel it would benefit the process as a whole if the subgroups were to meet and report out more regularly.
- Therefore, understanding that the SCC funds this effort (that it pays for the facilitator) and should therefore be understood as "owning" this entire process. Given that, I respectfully ask SCC staff to engage vigorously in these discussions to help ensure that the stakeholder process is a productive use of everyone's time and provides real benefit to the Commonwealth and its residents. In particular, I'd request that staff provide feedback on the technical, policy, and process questions and issues raised during the course of the Stakeholder Process activities. Another thought is to think hard about who is represented at these meetings. If there are key constituencies missing, why are they missing? What can be done to include their voices? For example, I've never seen an insulation contractor at these meetings. Why is that? How might they be enticed to participate? Similarly, why have some stakeholders dropped out of the conversation? Why did they decide this process was no longer worth their time? I would ask for the "owners" of the Stakeholder Process to implement changes that provide for better representation of affected communities and groups. One option is to compensate folks for their time. Currently, any organization that wants a seat at the table must have some other source of funding to pay for staff time to attend. That means that some of us are effectively here as volunteers. Overall, I'm very frustrated at the number of hours I personally have invested in this process over the last 5+ years for, what I feel, are such meager results. Over that time, I've worked for small non-profits (LEAP, Viridiant, RREA) where we participated basically as volunteers. I offered my time because I have deep expertise in building science, clean energy technology, home energy audits, and the construction industry. None of these organizations have funding for this stakeholder engagement. We can't charge our time to rate-payers. We've participated because it met our mission to advocate for effective, efficient deployment of ratepayer dollars for more energy efficiency. But our internal resources for such uncompensated work are very limited. I am increasingly reluctant to volunteer more time if so, little improvement comes from it. The rudimentary nature of many of the questions in this survey speak to this reality. For example: "Do you have suggestions for how an AMI-based initiative might be designed?" This is such an open-ended question, relating to legislation (GTSA) passed

in 2015, as to be offensive. I googled the topic and quickly got a trove of ideas to research in detail. Why is a 12-person non-profit organization being asked to do this basic research? Is the Fortune 500 company running this googling? I'm serious. The whole thing is backwards. Dominion should bring detailed ideas to stakeholders and pay them to trouble-shoot, not just ask the most open-ended questions – the responses to which then get lost (or ignored) in their internal processes until the next meeting when (all too often), the same discussion starts all over again. Certainly, there are exceptions to the scenario I describe above. Moving towards bundling is one incremental change that seems to be occurring. But, when I consider the total person-hours we all have collectively invested in these meetings over the last 5-odd years, I'm deeply disappointed. I truly believe we can do better. Given the near-term EE and long-term zero-carbon targets provided by Virginia law, we must do better. Given the massive potential for cost-effective energy efficiency to benefit Virginia residential and non-residential electricity consumers, we ought to do better.

Recommendations for Full Report

Summary: The full report to the Commission should include a comprehensive analysis of the data, a balanced evaluation of the current programs, and well-supported recommendations for improvements. It should also consider the potential challenges and limitations of implementing the recommendations and provide suggestions for mitigating these challenges. The report should be objective, unbiased, and transparent, presenting both the strengths and weaknesses of the current programs and providing a balanced analysis of the potential impacts and benefits of any proposed changes or adjustments. It is also important to consider the goals and objectives of the Commission and the stakeholders involved in the report.

Table 1

	YEAR	VCEA Target MWh	VCEA Target %	DSM1-8 MWh	DSM9 MWh	DSM10 MWh	DSM11 MWh	DSM12 MWh	Opt-Outs MWh	DSM %
Net at Meter	2022	852,892	1.25%	776,335	4,154	-	-	-	58,754	1.23%
	2023	1,705,783	2.50%	1,002,445	79,192	60,671	-	-	59,855	1.8%
	2024	2,558,675	3.75%	1,160,067	165,870	178,878	37,210	-	60,955	2.3%
	2025	3,411,567	5.00%	1,186,909	251,179	343,743	89,556	19,748	62,055	2.9%

Table 2

	YEAR	VCEA Target MWh	VCEA Target %	DSM1-8 MWh	DSM9 MWh	DSM10 MWh	DSM11 MWh	DSM12 MWh	Opt-Outs MWh	DSM %
Gross at Meter	2022	852,892	1.25%	1,220,054	4,781	-	-	-	58,754	1.9%
	2023	1,705,783	2.50%	1,485,665	91,548	66,352	-	-	59,855	2.5%
	2024	2,558,675	3.75%	1,663,322	194,941	195,075	40,048	-	60,955	3.2%
	2025	3,411,567	5.00%	1,691,387	295,668	371,684	98,056	23,943	62,055	3.7%

All values exclude NC and non-Jurisdictional DSM reductions.