



SCHOOL of LAW

Cale Jaffe

Associate Professor of Law, General Faculty
Director, Environmental and Regulatory Law Clinic

May 22, 2020

VIA ELECTRONIC FILING ONLY

Mr. Joel H. Peck, Clerk
c/o Document Control Center
State Corporation Commission
Tyler Building – First Floor
1300 East Main Street
Richmond, Virginia 23219

RE: Petition of Virginia Electric and Power Company for approval of its 2019 DSM Update pursuant to § 56-585.1 A 5 of the Code of Virginia

Case No. PUR-2019-00201

Dear Mr. Peck:

Enclosed for filing in the above-captioned proceeding is the **Post-Hearing Brief of the Virginia Energy Efficiency Council** (“VAEEC”). This document is being filed in a public version only, and is being filed electronically on the Commission’s Electronic Document Filing system. If you have any questions regarding this filing, please contact me at (434) 924-4776, or via email at cjaffe@law.virginia.edu.

Regards,

A handwritten signature in black ink that reads "Cale Jaffe".

Cale Jaffe
Associate Professor of Law, General Faculty
Director, Environmental and Regulatory Law Clinic
University of Virginia School of Law

cc: Parties on Service List
Commission Staff

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

PETITION OF)
)
VIRGINIA ELECTRIC AND POWER)
COMPANY)
) Case No. PUR-2019-00201
For approval of its 2019 DSM Update)
pursuant to § 56-585.1 A 5 of Code of Virginia)

POST HEARING BRIEF OF THE VIRGINIA ENERGY EFFICIENCY COUNCIL

I. Introduction.

Pursuant to the Chief Hearing Examiner’s directive, the Virginia Energy Efficiency Council (“VAEEC”) submits this post-hearing brief on Virginia Electric and Power Company’s (“Dominion Energy” or the “Company”) Petition for approval of the Company’s 2019 Demand-Side Management (“DSM”) update. As stated during the evidentiary hearing held on April 29, 2020, the VAEEC respectfully requests that any Final Order in this docket from the Commission address three factors:

- 1) First, the VAEEC asks that the Commission approve each of the Company’s Phase VIII programs included in the Petition, and also that the Commission approve the Company’s resubmitted and continued programs from earlier DSM phases. In particular, the VAEEC finds that the Company’s new, proposed midstream programs, including rebates payable to homebuilders through the Residential New Construction Program, are especially important for obtaining greater energy efficiency savings.
- 2) Second, the VAEEC requests that the Commission direct the Company to develop a standardized presentation of total annual energy savings and program expenditures to be used both in Evaluation, Measurement, and Verification (“EM&V”) reports and in petitions for new proposals.

3) Third, the VAEEC requests that the Commission direct the Company to evaluate the programs outlined by the VAEEC's witness, Mark James, with a particular focus on programs that allow for greater and more cost-effective AMI integration, through the stakeholder process and in advance of the Company's next round of DSM proposals (*i.e.*, prior to the development of Phase IX).

II. The Programs Included in the Company's Petition Are in the Public Interest.

This docket is governed by Va. Code § 56-585.1 A 5 (c), which provides, in relevant part, "The Commission shall only approve such a petition [for an energy efficiency program] if it finds that the program is in the public interest." Virginia Code § 56-576 clarifies:

"In the public interest," for purposes of assessing energy efficiency programs, describes an energy efficiency program if the Commission determines that the net present value of the benefits exceeds the net present value of the costs as determined by not less than any three of the following four tests: (i) the Total Resource Cost Test; (ii) the Utility Cost Test (also referred to as the Program Administrator Test); (iii) the Participant Test; and (iv) the Ratepayer Impact Measure Test. . . . In addition, an energy efficiency program may be deemed to be "in the public interest" if the program provides measurable and verifiable energy savings to low-income customers or elderly customers.

To evaluate Dominion Energy's Petition pursuant to these standards, the VAEEC sponsored the expert testimony of Mark James, a Senior Research Fellow in the Institute for Energy and the Environment and an adjunct professor at Vermont Law School. *See* Exhibit 19, Direct Testimony and Exhibits of Mark James (filed March 20, 2020). In his pre-filed testimony, Mr. James "recommend[ed] approval of all the new Phase VIII energy efficiency programs" in addition to supporting the entirety of the Company's proposal. *Id.* at 3. He explained that the "Phase VIII programs are particularly beneficial as they expand the number of opportunities for energy savings for different end users and customer classes." *Id.* at 4.

A. Dominion Energy’s Residential New Construction and Non-Residential Midstream Energy Efficient Products Programs Are Cost-Effective and Must Be Approved.

Much of the questioning at the evidentiary hearing focused on who might receive a rebate or incentive from participation in a midstream program. Yet whether an end-use customer would ever receive a portion of a rebate paid to an installer is, at best, secondary to any analysis of the Company’s petition. An efficiency program is deemed “in the public interest” under Virginia law if it will provide cost-effective delivery of *energy-efficiency savings*, as that is the primary focus of the four tests identified in Virginia Code § 56-576. *See* California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects (Oct. 2001) (describing in detail the Participant Test, the Ratepayer Impact Measure Test, the Total Resource Cost Test, and the Program Administrator Cost Test) (available at <https://www.raponline.org/wp-content/uploads/2016/05/cpuc-standardpractice-manual-2001-10.pdf>). To be sure, some of the cost-effectiveness tests track the use of rebates, but only as a means to an end.

The focus remains on efficiency savings in the cost-effectiveness tests, which is why VAEEC witness Mark James, when asked about his “overall recommendations for best practices,” answered as follows:

It is important to have a comprehensive portfolio. A comprehensive portfolio contains programs and measures that are targeted at key decision points and key decision makers, which increases the cost-effectiveness of programs and increases participation. A comprehensive portfolio of programs is a mix of downstream and midstream programs that can maximize the return on investment. A comprehensive portfolio also produces short-term and long-term savings, giving customers immediate bill relief and providing a high rate of return over the lifespan of each measure. Lastly, a comprehensive portfolio contains a blend of direct install programs and whole building energy efficiency programs, which maximizes the capture of available efficiency gains.

See Exhibit 19, Direct Testimony and Exhibits of Mark James, at 4.

The final sentence in Mr. James's response bears re-emphasis. Regardless of how any rebate is distributed, the critical point is to capture and track electricity usage and efficiency gains. Additional testimony presented at the evidentiary hearing and through public comments bolstered Mr. James' conclusions, particularly with regard to his support of the Company's midstream programs and its Residential New Construction program.

Midstream programs are an acknowledgement that purchasing decisions are not *wholly* influenced by an end-use customer's strict price comparison. Non-price factors, such as whether midstream distributors stock efficient alternatives, have an important role to play. In the world of new residential housing stock, a home buyer's decision will be driven by neighborhood preferences, assessment of school districts, or proximity to workplaces, with the energy efficiency of the home playing a subordinate role. Targeting rebates at the residential homebuyer, therefore, may not be the most effective means of increasing the efficiency of new residential buildings. Homebuilders, by contrast, will be more sensitive to costs during the construction process. Programs that provide rebates to builders who construct ENERGY STAR-certified homes are effective because they target the key, midstream actor at the precise moment in the process when decisions impacting the energy efficiency of a new home are being made. Distributing those rebates to the homebuilder, who is making the design and equipment decisions necessary to achieve ENERGY STAR certification, leads to more energy-efficient homes being put on the market for sale.

In written public comments, the U.S. Green Building Council explained its support for the Residential New Construction program and noted, "Providing an incentive to builders, who are the parties making decisions about what to build, is the most effective approach." *See* Public Comment Letter, Elizabeth Beardsley, P.E., Senior Policy Counsel, U.S. Green Building Council

(submitted May 7, 2020). To buttress its assertion, the U.S. Green Building Council cited that ENERGY STAR-certified homes account for 16% of the market in Texas compared to just 4% in Virginia, and “at least six Texas utilities provide builder incentives (and none identified have consumer level incentives).” *See id.* The number of ENERGY STAR-certified homes built in Dominion’s service territory is even smaller. Company witness Michael Hubbard testified that “less than 3% of all new homes built in the Company’s service territory meet ENERGY STAR certification guidelines.” *See* Exhibit 29, Rebuttal Testimony of Michael T. Hubbard, at 11 (filed Apr. 10, 2020). In other words, there is an acute need for new, energy-efficient homes in Virginia, and a midstream rebate aimed at homebuilders will help meet that need.

The U.S. Green Building Council’s understanding of the value of midstream programs like the Residential New Construction program is bolstered by the surrebuttal testimony of Mr. Hubbard, who explained that the Residential New Construction program is available in “numerous states.” *See* Transcript of Hearing—Day 1, at 90-91. The VAEEC’s witness, Mark James, elaborated on why these programs are so popular nationwide, observing that distributors and midstream product suppliers “could have an outsized influence on customer purchase decisions. And they do so because of how they manage product availability....” *See* Transcript of Hearing—Day 1, at 52. He then cited a Pacific Gas and Electric HVAC energy efficiency program that switched “from a customer rebate program to a distributor rebate program, and saw an increase in market ... penetration of 900 percent.” *Id.* at 53-54. *See also* Maureen Quaid & Howard Geller, “Upstream Utility Incentive Programs: Experience and Lessons Learned,” *Southwest Energy Efficiency Project*, at 6-7 (May 2014), at http://www.swenergy.org/data/sites/1/media/documents/publications/documents/Upstream_Utility_Incentive_Programs_05-2014.pdf. Mr. James emphasized, “Importantly, the total amount of

rebates paid out [by Pacific Gas] were similar, but the participation rates increased significantly when the rebate was paid directly to the distributor.” *See* Transcript of Hearing—Day 1, at 54.

Mr. Hubbard confirmed that the design of these programs, in Virginia and across the nation, seek greater electricity savings, which is ultimately what determines cost-effectiveness. Commission Staff counsel had questioned why rebates would not be payable directly to end-use customers instead of to midstream distributors and suppliers. Mr. Hubbard explained:

I think as has been seen in other states, providing more availability of product result in greater uptake. In essence if it’s not there, you can’t do it. So really these programs, when you’re getting more aggressive energy efficiency targets in a state, you’ll see programs that try to influence the amount of available product, particularly in a nonresidential program like this where you’ve got more expensive equipment and you can track to what address this equipment actually goes to. ... [P]roduct being available [*i.e.*, stocked by a distributor] increases the likelihood that they [end-use customers] will purchase the product. It’s that simple. Without the opportunity, they’re definitely not going to purchase it. With the distributor having been incented to provide more opportunities... [the program] has been proven effective in other states.

See Transcript of Hearing—Day 1, at 94-95.

The Office of the Attorney General, Division of Consumer Counsel asked Commission Staff witness Andrew T. Boehnlein about “another way to ensure that end use customers receive a portion of an incentive” in a rebate program. *See* Transcript of Hearing—Day 1, at 72.

Respectfully, Consumer Counsel’s question misses the point. Dominion Energy’s electricity customers are *not* buying rebates and the ultimate goal is *not* to “ensure that end use customers receive a portion of an incentive.” Rather, what Dominion Energy’s electricity customers are buying with these investments in DSM programs are monthly end-use energy efficiency savings on their electricity bills. As Mr. Hubbard explained:

I think it’s important to just note that, you know, with this [Residential New Construction] program being cost effective, that it’s providing system benefits, and that flow -- that customer is going to continue to get the monthly energy

savings, which is another benefit that lives on for that customer, which has been modeled.

See Transcript of Hearing—Day 1, at 90.

Those “monthly energy savings” will determine whether a program is cost-effective. The rebate, therefore, must be targeted at the party who can drive market transformation at the quickest pace and lowest cost. In the case of the Residential New Construction and Non-residential Midstream Energy Efficient Products programs, that party is the homebuilder or the distributor, respectively. Mr. Hubbard’s testimony, Mr. James’s testimony, and the public comments from the U.S. Green Building Council all cement this vital point.

III. Changes to the Process for Developing DSM Phases are Necessary to Meet the Targets in the GTSA and the VCEA.

The Grid Transformation and Security Act of 2018 (“GTSA”) requires the Company to meet cumulative program spending goals for the design of new DSM programs. Relatedly, the Virginia Clean Economy Act of 2020 (“VCEA”) requires measured and verified progress towards actual annual electricity savings targets. To ensure that the Company is best able to meet both of these challenges, the VAEEC recommends that the Commission in this docket: a) direct the Company to develop a standardized presentation of total annual energy savings and program expenditures; and b) direct the Company to evaluate the programs outlined by VAEEC witness Mark James, with a particular focus on programs that allow for greater AMI integration.

A. The Commission Should Direct the Filing of a DSM “Dashboard.”

With respect to the presentation of data on program spending and electricity savings, Environmental Respondents’ witness Jim Grevatt recommended “a ‘dashboard’ in table format that includes cost and savings data for all active and proposed phases of programs.” *See* Exhibit 18, Direct Testimony of Jim Grevatt, at 7 (filed March 20, 2020). The VAEEC supports a filing

requirement for the Company consistent with Mr. Grevatt's recommendation. Indeed, VAEEC witness Mark James testified that Dominion Energy should be directed to "adopt a clear and standardized presentation of program metrics, which it would file in every docket where it seeks approval of DSM programs and in its annual EM&V filings for approved programs." *See* Transcript of Hearing—Day 1, at 54. Mr. James added:

To address the Grid Transformation and Security Act mandates, I recommended the filing include projected annual program spending and actual annual program spending. To address the Virginia Clean Economy Act compliance mandates, I recommended the filing include for each program and for the entire portfolio estimated and actual total annual savings during the approval period and throughout the expected average measure life for participation planned during the approval period sought.

Id. at 55.

A standardized report on energy savings and program targets would address transparency concerns raised by Environmental Respondents in evaluating the Company's data. *See* Exhibit 18, Direct Testimony of Jim Grevatt, at 18 ("The annual savings projections from each of the currently active and proposed programs remain opaque."). It would also help resolve similar critiques from the Commission Staff. *See* Exhibit 22, Direct Testimony of David J. Dalton (filed March 27, 2020), at 50 ("Staff believes development of this information, or at least high-level conceptualization that is articulable, may be appropriate in future filings by the Company for evaluation by Staff so the adequacy of the proposed EM&V Plans in yielding accurate results reportable to the Commission can be analyzed.").

B. The Commission Should Direct the Company to Evaluate New Programs to Improve AMI Integration.

VAEEC witness Mark James outlined several programs for consideration in his pre-filed testimony that could improve the cost-effectiveness of AMI technology. As the Commission is well-aware, the Company has been working on grid modernization for some time and faces

challenges with integrating AMI technology into its operations as cost-effectively as possible. *See* Final Order, *Petition of Va. Elec. & Power Co. for approval of a plan for electric distribution grid transformation projects*, PUR-2019-00154 (March 26, 2020). Mr. James observed that “with the advanced analytics made possible by data collected by AMI technology, energy efficiency can be targeted to reduce energy consumption at specific periods of the day, week, month, or season.” *See* Exhibit 19, Direct Testimony and Exhibits of Mark James, at 25. He added, “Full deployment of AMI technology will expand this potential in the future. But the Company can realize benefits from AMI technology now, before it reaches full deployment.” *Id.*

Mr. James recommended the development of geotargeting programs, which would use AMI technology to identify transmission and distribution congestion problems and tailor DSM measures to alleviate these problems. *Id.* at 30. He referenced success stories in states that have “used geotargeted energy efficiency and demand response to avoid, delay, or reduce proposed investments in transmission infrastructure.” *Id.* at 30-31. The VAEEC requests that the Commission direct the Company to evaluate Mr. James’s recommendations related to AMI, as Mr. James’ recommendations could form part of “a comprehensive plan to maximize the potential of AMI.” *See* Final Order, PUR-2019-00154, at 8. Geotargeting could help make the transition to AMI more cost-effective for all customers, as geotargeted DSM programs could allow the Company to defer or avoid costly transmission line upgrades. To that end, the VAEEC appreciates the Company’s acknowledgement that Mr. James’s recommendations are “worth evaluating” and that it “will solicit relevant input from the market.”

IV. Conclusion.

WHEREFORE, the VAEEC requests that the Commission: 1) approve the Company's Phase VIII programs, as designed, in addition to the resubmitted and continued programs; 2) direct the Company to include a standardized presentation of energy savings and program expenditures; and 3) direct the Company to evaluate the recommendations from VAEEC witness Mark James on new programs and AMI integration.

Respectfully Submitted,



Cale Jaffe (VSB #65581)

Abbey Thornhill (admitted under Virginia's Third Year Practice Rule)

Thalia Spinrad (admitted under Virginia's Third Year Practice Rule)

Environmental and Regulatory Law Clinic

University of Virginia School of Law

Tel: (434) 924-4776

Fax (434) 924-7315

cjaffe@law.virginia.edu

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CERTIFICATE OF SERVICE

I hereby certify that the following have been served with a true and accurate copy of the Post-Hearing Brief of the Virginia Energy Efficiency Council (“VAEEC”), by electronic mail only:

Vishwa B. Link
Lisa R. Crabtree
April M. Jones
McGuireWoods LLP
Gateway Plaza
800 East Canal Street
Richmond, Virginia 23219

Paul E. Pfeffer
Audrey T. Bauhan
Dominion Resources Services, Inc.
Law Department, RS-2
120 Tredegar Street
Richmond, Virginia 23219

Kiva Bland Pierce
Andrea B. Macgill
Office of General Counsel
Virginia State Corporation Commission
P.O. Box 1197
Richmond, Virginia 23218

Matthew L. Gooch
William T. Reisinger
ReisingerGooch, PLC
11 South 12th Street
Richmond, Virginia 23219

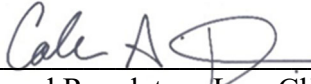
Nathaniel Benforado
William Cleveland
Hannah Coman
Southern Environmental Law Center
201 West Main St., Suite 14
Charlottesville, Virginia 22902-5065

C. Mitch Burton, Jr.
John E. Farmer, Jr.
Division of Consumer Counsel
Office of the Virginia Attorney General
202 N. 9th Street, Eighth Floor
Office of the Attorney General
Richmond, Virginia 23219-3424

Carrie Harris Grundmann
Spilman Thomas & Battle, PLLC
110 Oakwood Drive, Suite 500
Winston-Salem, North Carolina 27103

Derrick Price Williamson
Spilman Thomas & Battle, PLLC
1100 Bent Creek Boulevard, Suite 101
Mechanicsburg, Pennsylvania 17050

DATED: May 22, 2020



Cale Jaffe, Environmental and Regulatory Law Clinic
University of Virginia School of Law