



July 28, 2017

VIA ELECTRONIC FILING

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: Ex Parte: In the Matter of Adopting New Rules Governing the
Evaluation, Measurement, and Verification of the Effects of Utility-
Sponsored Demand-Side Management Programs**

Case No. PUR-2017-00047

Dear Mr. Peck:

Enclosed for filing in the above-captioned proceeding are the **Comments of the Virginia Energy Efficiency Council**, which are being filed electronically on the Commission's Electronic Document Filing system. If you should have any questions regarding this filing, please contact me at (434) 924-4776, or via email at cjaffe@law.virginia.edu.

Sincerely,

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

Cale Jaffe
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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

COMMONWEALTH OF VIRGINIA, *ex rel.*)
)
STATE CORPORATION COMMISSION)
)
) Case No. PUR-2017-00047
Ex Parte: In the Matter of Adopting)
New Rules Governing the Evaluation,)
Measurement, and Verification of the)
Effects of Utility-Sponsored Demand-Side)
Management Programs)

COMMENTS OF THE VIRGINIA ENERGY EFFICIENCY COUNCIL

I. INTRODUCTION

Pursuant to the Commission’s Order for Notice and Hearing in the above-captioned matter, the Virginia Energy Efficiency Council (“VAEEC”) hereby files the following comments related to the proposed rules governing the evaluation, measurement, and verification (“EM&V”) of utility-sponsored demand-side management (“DSM”) programs. Our comments identify improvements to the proposed rules to ensure that they are clear, strong, and cost-effective. Attachment A provides specific wording for how our improvements could be implemented.

The VAEEC is a Richmond-based 501(c)3 charitable organization composed of a broad coalition of businesses, universities, nonprofits, local governments, state agencies, utilities and individuals in the energy efficiency industry. Our goal is to ensure that energy efficiency is recognized as an integral part of Virginia’s economy and clean energy future. The VAEEC provides a platform for stakeholder engagement while assessing and supporting programs, innovations, best practices, and policies that advance energy efficiency in Virginia. The VAEEC is especially sensitive to our members’ concerns about energy efficiency program cost and the

impact that has on rates and regulatory approval. Accordingly, our recommendations below identify ways to lower costs through a transparent and standard process that leverages lessons learned and best practices from other states' programs.

The VAEEC participated in the prior, related docket, *Ex Parte: In the Matter of Receiving Input for Evaluating the Establishment of Protocols, a Methodology, and a Formula to Measure the Impact of Energy Efficiency Measures*, PUE-2016-00022, and filed comments in that proceeding on May 25, 2016.¹ Some of the observations made by the VAEEC in its earlier comments merit re-emphasis in the current proceeding, and are outlined below.

II. FORMATION OF A STAKEHOLDER GROUP

One of the primary recommendations that the VAEEC made in its earlier comments in PUE-2016-00022 was to form a stakeholder group to review Virginia's EM&V processes. The need for that stakeholder group is now greater than ever. Respectfully, the proposed rules appear to run counter to the rationale for developing EM&V protocols, which is to ensure that DSM programs are run more efficiently and with greater cost-effectiveness. Convening a stakeholder group would foster collaboration on enhancements to the proposed rules that should yield improved EM&V protocols consistent with the Commission's objectives in this proceeding.

The legislative intent of the initial rulemaking process was to evaluate "uniform protocols for measuring, verifying, validating, and reporting the impacts of energy efficiency measures" and to consider establishing "a methodology for estimating annual kilowatt savings"² Last year, the Commission determined that establishing these protocols would be useful for future DSM proposals developed by both natural gas and electric utilities, and directed the Commission

¹ See Comments of the Virginia Energy Efficiency Council, PUE-2016-00022 (May 25, 2016), available at <http://www.scc.virginia.gov/docketsearch/DOCS/392v011.PDF>.

² See Chapters 255 and 517 of the 2016 Virginia Acts of Assembly.

Staff “to draft proposed EM&V regulations of general applicability ... incorporating Virginia-specific data where possible.”³ Unfortunately, the proposed rules run the risk of imposing duplicative and burdensome requirements on utilities, which would add unnecessarily to administrative program costs, frustrate program development, and make it more difficult for good programs to make it through to implementation.

The current process of notice-and-comment rulemaking, while beneficial in allowing parties to voice their concerns, does not allow stakeholders to collaborate with each other and with the Commission staff on this new regulatory initiative. Given the concerns that many stakeholders have raised, more discussions amongst stakeholders are necessary to finalize rules that will help reduce the overall cost of DSM programs while at the same time improving program effectiveness. Accordingly, the VAEEC respectfully recommends convening a workgroup of interested technical experts from the utilities and other stakeholders to meet regularly to consider revisions to the proposed rules.

There is strong precedent for creating a stakeholder group to review the EM&V protocols. In 2007, this Commission created a work group to evaluate the 10% energy conservation goal that had been established by the General Assembly.⁴ The Commission directed the Staff to reach out to “incumbent electric and gas utilities, competitive service providers (‘CSPs’), retail customers, the Virginia Department of Mines, Minerals, and Energy (‘DMME’), the Governor's Energy Council (‘Council’), cooperative and municipal providers of electric and gas service in the Commonwealth, PJM Interconnection, environmental and consumer

³ See Order on Evaluation, PUE-2016-00022, at 6 (Nov. 30, 2016).

⁴ See Chapters 888 and 933 of the 2007 Virginia Acts of Assembly (“The Commonwealth shall have a stated goal of reducing the consumption of electric energy by retail customers through the implementation of such programs by the year 2022 by an amount equal to ten percent of the amount of electric energy consumed by retail customers in 2006.”).

organizations, and any other interested persons to participate in a work group that will assist Staff in making the determinations called for ... and to develop recommendations to the Commission....”⁵ As detailed in the Staff’s Report, the process included a series of meetings with the full work group and additional meetings with sub-groups.⁶

Other states have employed similar, consensus-oriented approaches to develop EM&V protocols. Since 2006, Arkansas has used a collaborative process that includes Commission staff, utilities, the Office of the Attorney General, consumer groups, and community and low-income advocates. The group is encouraged to reach consensus, but consensus is not required. The group has successfully developed Technical Reference Manuals, EM&V protocols, and net-to-gross savings adjustments. The state of Illinois has maintained a similar group since 2008, titled the Illinois Energy Efficiency Stakeholder Advisory Group. South Carolina also has an advisory group, which was established by Commission order to review and improve EM&V plans for South Carolina Electric and Gas. The VAEEC respectfully requests the establishment of a similar collaborative group for refinement of the proposed EM&V rules.

It will be essential for the Commission Staff to participate in a new stakeholder process, but it is not necessary that the Staff facilitate it. The VAEEC respectfully offers to organize and host such an initiative. We ask the Commission to suspend the current process on the development of these rules for 90 days to allow the stakeholder group to convene. We further

⁵ See Order Establishing Proceeding, *Ex Parte: In the Matter of Determining a Recommended Mix of Programs, Including Demand Side Management (DSM), Conservation, Energy Efficiency, Load Management, Real-Time Pricing, and Consumer Education, to be Implemented in the Commonwealth to Cost-Effectively Achieve the Energy Policy Goals Set in § 67-102 of the Code of Virginia to Reduce Electric Energy Consumption*, PUE-2007-00049, at 2-3 (June 8, 2007).

⁶ See Staff’s Report to the State Corporation Commission in Preparation for the Commission’s Report to the Governor and the General Assembly, PUE-2007-00049 (Nov. 16, 2007).

request an additional comment opportunity, following the conclusion of stakeholder group meetings, to allow all parties to recommend additional changes to the proposed rules.⁷

III. REPORTING DATA VERSUS PLANNING DATA

The primary purpose of EM&V is to evaluate *existing* programs that have been placed into service, measure the amount of savings that these programs have achieved, and verify that these savings match up with pre-implementation estimates. As currently drafted, the new protocols require public utilities to provide EM&V data on *proposed* programs that would attempt to measure or verify savings that have yet to occur. That is, many of the requirements in the proposed rules would add costly and impractical obligations for the collection of data that are contrary to the purpose of EM&V and would be filed before a public utility has been granted approval from the Commission to implement a given DSM program. While some pre-approval planning requirements are undoubtedly necessary to ensure that DSM measures and programs are designed to be cost-effective, many of the Commission's pre-approval requirements are overly burdensome and would be more appropriate in the reporting phase of the EM&V process.

For example, information about which contractors or subcontractors might be hired—and details on their arrangements—would not be available until after a program has been approved and the implementation process has begun. Proposed rule 20 VAC 5-318-40 F would require plans that direct contractors and subcontractors to “record details of serviced or replaced equipment, to include, at minimum: (1) Nameplate efficiency ratings; and (2) Serial numbers.”⁸

If the intent of this rule is to require vendors to collect this information when a program is

⁷ The stakeholder group could also be made permanent in order to address problems that might become apparent once the rules have been in practice for a period of time. *See* Attachment A, proposed rule 20 VAC 5-318-70.

⁸ It is not clear if this rule seeks to collect the nameplate efficiency ratings and serial numbers of specific pieces of equipment in the planning documents themselves. Such a request would obviously be impractical. An upgraded HVAC or refrigeration unit would only be purchased if a program were approved; it would be impossible to know the serial number of units ahead of time.

actually implemented, then that is a goal that would best be achieved through a requirement in the reporting requirements alone, 20 VAC 5-318-50.

Similarly, requirements to comply with the International Performance Measurement and Verification Protocol (“IPMVP”) make the most sense at the reporting stage, to the extent appropriate. The IPMVP has been updated several times since 2002, and is maintained by Efficiency Valuation Organization (“EVO”). It was initially developed for use in the industrial/commercial setting by energy service companies, or ESCOs, and may not apply to all DSM programs or measures. Nevertheless, the IPMVP documents define “the commonly used terminology and guiding principles for applying M&V.”⁹ As the 2002 report on the IPMVP explains, “When firms invest in energy efficiency, their executives naturally want to know how much they *have saved* The determination of energy savings requires both accurate measurement and replicable methodology, known as a measurement and verification protocol.”¹⁰ Along the same lines, while the VAEEC is pleased that the Commission encourages the use of EM&V 2.0,¹¹ that guideline relates most directly to reporting of savings that have been previously achieved.

In sum, EM&V protocols are primarily designed to confirm what has been saved in the past, not to plan for what would be saved in the future. Requiring overly burdensome EM&V data collection in the planning stage would be duplicative and unnecessary in light of strong reporting requirements. Accordingly, rules that are designed to collect post-implementation data

⁹ See EVO, “International Performance Measurement and Verification Protocol (IPMVP),” at <http://evo-world.org/en/products-services-mainmenu-en/protocols/ipmvp>.

¹⁰ See International Performance Measurement & Verification Protocol Committee, International Performance Measurement & Verification Protocol: Concepts and Options for Determining Energy and Water Savings, Volume I, at 6 (March 2002) available at <http://www.nrel.gov/docs/fy02osti/31505.pdf>.

¹¹ See Proposed Rule 20 VAC 5-318-40 H.

need to be deleted from the planning requirements (20 VAC 5-318-40) and maintained only in the reporting requirements (20 VAC 5-318-50).

IV. COLLECTION OF DATA

The VAEEC agrees with the Commission that utility-specific data in DSM filings should be preferred. At the same time, we respectfully recommend that the rules should be revised to allow for the collection and use of data from other sources in addition to utility-specific data. The proposed rules unfortunately prohibit the use of Virginia-specific data or data from non-Virginia jurisdictions in many circumstances. Data collection should be managed in a way that is feasible, practical, available, and would best serve to shed light on the performance of a given DSM program or measure.

There may be times when data from other sources will help shed a light on inadequacies in the utility-specific data. Appalachian Power's parent company, for example, might have a more robust and detailed set of data on DSM programs implemented in other jurisdictions by other AEP subsidiaries. That data should be included in Virginia filings, especially if it can help explain an anomaly that might appear in Virginia-specific data. Similarly, Dominion Energy might have more experience with implementing DSM programs and evaluating their effectiveness in North Carolina. Dominion's North Carolina data could help the Commission, the utility, utility customers, and other stakeholders best understand how a given energy-efficiency program will work in practice.

Accordingly, we recommend deleting language that would bar a utility from supplementing utility-specific data with useful data from other sources. Such a change to the proposed rules could be made while maintaining the descending order of preference established in the proposed rules for the use of various data sets. This recommendation is consistent with the

VAEEC's comments in PUE-2016-00022 that the Commission should review EM&V protocols from peer states that have had considerable success in delivering cost-effective, DSM savings.

V. CAPTURING ALL COSTS AND SAVINGS

Finally, the VAEEC agrees with the Commission that EM&V reports should capture free ridership data.¹² At the same time, the Commission should also evaluate the “spillover” effect, or unintended benefits, attributable to energy efficiency initiatives. Spillover is the natural corollary to free ridership. Whereas free ridership captures *costs* from the program that do not lead to savings, spillover captures *savings* delivered without additional costs. A National Renewable Energy Laboratory report defines “participant spillover” to include “additional energy savings that are achieved when a program participant—as a result of the program’s influence—installs EE measures or practices outside the efficiency program after having participated.”¹³

“Nonparticipant spillover” is defined, in part, as “additional energy savings that are achieved when a nonparticipant implements EE measures ... as a result of the program’s influence”¹⁴

Accounting for the spillover effect would improve the accuracy of cost-effectiveness evaluations, which is an important goal of EM&V protocols.

¹² See 20 VAC 5-318-40 C.

¹³ See Violette & Rathbun, “Estimating Net Savings: Common Practices The Uniform Methods Project: Methods for Determining Energy Efficiency Savings for Specific Measures,” at 3-4 (Sept. 2014), *available at* <https://energy.gov/sites/prod/files/2015/01/f19/UMPChapter17-Estimating-Net-Savings.pdf>

¹⁴ *Id.*

VI. CONCLUSION

The VAEEC appreciates this opportunity to comment on the Commission's proposed rules, and hopes that the recommendations included herein will ultimately lead to more and better DSM programs in Virginia.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Cale Jaffe", is written over a horizontal line.

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ON BEHALF OF THE VIRGINIA ENERGY EFFICIENCY COUNCIL

DATED: July 28, 2017

ATTACHMENT A

RECOMMENDED CHANGES TO THE PROPOSED RULES THE VIRGINIA ENERGY EFFICIENCY COUNCIL

20VAC5-318-10. Purpose and applicability.

A. This chapter sets forth minimum requirements for Virginia's natural gas and electric utilities related to evaluating, measuring, and verifying the effects of utility-sponsored DSM programs consisting of demand response and energy efficiency measures. This chapter should not be construed as limiting the ability of the commission or its staff to evaluate information in addition to or beyond that identified herein, or to use evaluation processes and procedures beyond those contained herein.

* * *

20 VAC 5-318-40. Standard requirements for EM&V planning filings.

A. In all filings required by 20 VAC 5-318-30, the source of all data or estimates used as inputs for proposed DSM measures or programs, in descending order of preference, shall be:

1. Utility-specific data, if available and practical;
2. Virginia-specific data, ~~if utility-specific data is unavailable or impractical~~. When Virginia-specific data is used, the utility shall provide an explanation as to why utility-specific data is unavailable, ~~or impractical~~, or would benefit from inclusion of additional data from other sources;
3. Data from non-Virginia jurisdictions or sources, ~~if neither utility-specific data nor Virginia-specific data is available or practical~~;
 - a. When data from non-Virginia jurisdictions or sources is used, the utility shall provide an explanation as to why utility-specific data is unavailable, ~~or impractical~~, or would benefit from inclusion of additional data from other sources.
 - b. When data from non-Virginia jurisdictions or sources is used, the utility shall provide an explanation as to why Virginia-specific data is unavailable, ~~or impractical~~, or would benefit from inclusion of additional data from other sources, as well as the sources of all data, to include:

(1) Titles, version numbers, publication dates, and page numbers of all source documents, as appropriate: and

(2) An explanation as to why, in the utility's assessment, use of this data is appropriate.

* * *

C. EM&V planning documents shall include measure-level estimates of kilowatt, kilowatt-hour, and dekatherm savings as appropriate. An estimate that has been adjusted for free-ridership, participant spillover, and nonparticipant spillover, as well as an estimate that has not been adjusted for free-ridership or spillover effects should be included as appropriate.

F. EM&V planning documents for DSM measures or programs shall include a description of the controls to be used by the utility to verify proper installation of the proposed measures and programs, as appropriate. ~~Additionally, plans shall require the contractors and subcontractors that will be implementing the measures or programs to record details of serviced or replaced equipment to include, at minimum:~~

- ~~1. Nameplate efficiency rates; and~~
- ~~2. Serial numbers.~~

~~G. — Generally, EM&V planning proposals should comply with Options A, B, C, or D from the International Performance Measurement and Verification Protocol (March 2002). However, the commission recognizes that each utility has unique characteristics and new or modified DSM measures are constantly being developed. As such, alternative methodologies may be considered with sufficient supporting documentation and explanation of appropriateness.~~

~~H. — Utilities are encouraged to consider use of emerging technologies, including, but not limited to, "advanced measurement and verification" or "evaluation, measurement and verification 2.0" when appropriate and cost effective.~~

* * *

20 VAC 5-318-50. Standard requirements for EM&V reporting.

* * *

H. Generally, EM&V reports should comply with the International Performance Measurement and Verification Protocol, as updated and maintained by the Efficiency Valuation Organization. However, the commission recognizes that each utility has unique characteristics and new or modified DSM measures are constantly being developed. As such, alternative methodologies may be considered with sufficient supporting documentation and explanation of appropriateness.

I. Utilities are encouraged to consider use of emerging technologies, including, but not limited to, “advanced measurement and verification” or “evaluation, measurement and verification 2.0” when appropriate and cost effective.

20 VAC 5-318-70. Stakeholder review.

The staff of the commission shall convene a group of stakeholders consisting of incumbent electric and gas utilities, competitive service providers (‘CSPs’), retail customers, the Virginia Department of Mines, Minerals, and Energy (‘DMME’), the Governor's Energy Council (‘Council’), cooperative and municipal providers of electric and gas service in the Commonwealth, PJM Interconnection, environmental and consumer organizations, and any other interested persons to annually review these rules and recommend changes or improvements to the rules as necessary.

CERTIFICATE OF SERVICE

I hereby certify that the following have been served with a true and accurate copy of the foregoing by deposit in the U.S. Mail, first class, postage prepaid:

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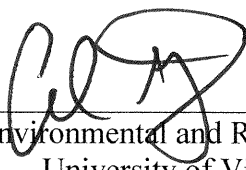
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DATED: July 28, 2017



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