Virginia State Corporation Commission
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Case Number (if already assigned)	PUR-2020-00120
Case Name (if known)	Ex Parte: In the matter of establishing rules and regulations pursuant to § 56-585.5 E 5 of the Code of Virginia related to the deployment of energy storage
Document Type	CMMT
Document Description Summary	Pursuant to the Commonwealth of Virginia State Corporation Commission's ("Commission") June 29, 2020, Order Establishing Proceeding and seeking comment in Case No. PUR-2020-00120 and the July 22, 2020, Order Granting Motion extending the deadline for the filing of proposed regulations, the U.S. Energy Storage Association ("ESA") respectfully submits these proposed regulations for the Commission's consideration
Total Number of Pages	7
Submission ID	19576
eFiling Date Stamp	8/14/2020 3:02:30PM

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

COMMONWEALTH OF VIRGINIA, *ex rel.* STATE CORPORATION COMMISSION *Ex Parte*: In the matter of establishing rules and regulations pursuant to § 56-585.5 E 5 of the Code of Virginia related to the deployment of energy storage	CASE NO. PUR-2020-00120

PROPOSED REGULATIONS OF THE U.S. ENERGY STORAGE ASSOCIATION FOR THE DEPLOYMENT OF ENERGY STORAGE

Pursuant to the Commonwealth of Virginia State Corporation Commission's ("Commission") June 29, 2020, Order Establishing Proceeding and seeking comment in Case No. PUR-2020-00120 and the July 22, 2020, Order Granting Motion extending the deadline for the filing of proposed regulations, the U.S. Energy Storage Association ("ESA") respectfully submits these proposed regulations for the Commission's consideration. ESA emphasizes that the regulations submitted herein will meet the legislative intent of the 2020 Virginia Clean Economy Act ("VCEA") while implementing energy storage targets that provide the greatest benefit and savings for residents and businesses in the Commonwealth.

I. ABOUT THE U.S. ENERGY STORAGE ASSOCIATION

ESA is the national trade association dedicated to energy storage, working toward a more resilient, efficient, sustainable, and affordable electricity grid—as is uniquely enabled by energy storage. With more than 190 members, ESA represents a diverse group of companies, including independent power producers, electric utilities, energy service companies, financiers, insurers,

law firms, installers, manufacturers, component suppliers, and integrators involved in deploying energy storage systems around the globe. Our members work with all types of energy storage technologies and chemistries, including lithium-ion, advanced lead-acid, flow batteries, zinc-air, liquid air, compressed air, and pumped hydro among others. A number of our members have operations or are presently developing grid energy storage projects in the Commonwealth.

II. FRAMING COMMENTS

The proposed regulatory language in this filing reflects ESA's July 29, 2020, comments in the instant docket and is intended to establish guidance for the Commission and public utilities consistent with the statutory direction and intent of the VCEA. These proposed regulations capture ESA's recommendations at a high level while respecting the Commission's authority and discretion in implementing the energy storage target of the VCEA. As such, the adoption of this proposed regulatory language still defers significant implementing details to the Commission to determine via judicial order, such as the levels and schedule of interim targets, the design of complementary programs, and other considerations included in the statutory language of the VCEA.

Additionally, these proposed regulations are intended to capture ESA's recommendations as a whole, as certain recommendations have interactive effects with or are dependent upon the inclusion of other recommendations. Thus, if the Commission chooses to adopt these proposals in part or in modified form, it may be appropriate to revisit other recommendations. As one example, because our recommended regulations specify that interim energy storage procurement targets should include specific targets for storage of varying types of interconnection, ESA has not recommended any limitation on counting storage deployed outside of public utility procurement toward the achievement of procurement targets, such as transmission-connected

merchant energy storage facilities. However, should interim targets not include specific targets for storage of varying types of interconnection, it may be prudent to revisit how storage deployed outside of utility procurement contributes to achieving the target to ensure that a diversity of business models are able to contribute to the Commonwealth's energy storage goals.

Additionally, while the scope of this proceeding focuses on implementing the energy storage requirements of the VCEA, the unique nature of energy storage will require changes to utilities' Integrated Resource Planning ("IRP"). Therefore, it is appropriate at this time to offer an amendment to existing rules associated with the IRP process to increase transparency and ensure that the unique attributes of energy storage are accurately reflected.

III. PROPOSED NEW REGULATIONS FOR ENERGY STORAGE

ESA recommends that the following language be incorporated as Chapter 321 in Title 20, Section 5 of the Virginia Administrative Code.

20VAC5-321. Rules Governing Procurement of Energy Storage Resources.

20VAC5-321-10. Purpose.

The purpose of this chapter is to set requirements and establish procedures for utilities to procure energy storage resources.

20VAC5-321-20. Definitions.

Certain words as used in this chapter shall be understood to have the following meanings:

"Energy storage" refers to any technology that is capable of absorbing energy, storing that energy for a period of time, and re-delivering that energy after storage, including through electrochemical, chemical, thermal, or mechanical means.

"Energy storage resources" and "energy storage facilities" are synonymous and refer to a project that employs energy storage technology.

"Energy storage capacity" refers to the installed rated power of an energy storage facility.

20VAC5-321-30. Energy Storage Target.

1. Electric utilities shall procure at least 3,100 megawatts of eligible energy storage capacity by December 31, 2035. The target is deemed to be met when the sum total of installed energy

storage capacity meets or exceeds the energy storage target. Of that target, 2,700 megawatts of energy storage capacity shall be allocated to a Phase II utility and 400 megawatts of energy storage capacity shall be allocated to a Phase I utility.

2. The Commission shall set one or more interim targets for each utility. The initial interim target must include specific requirements for installed energy storage capacity to be deployed at each of three types of interconnection: behind-the-meter, front-of-meter distribution-connected, and front-of-meter transmission-connected.
3. The following requirements apply to final and interim targets:
    a. A minimum of 35 percent of energy storage capacity must be procured from energy storage facilities that are under the continued ownership of an entity other than a public utility and provide services to a public utility through a contractual agreement.
    b. A minimum of 10 percent of energy storage capacity must be located behind-the-meter.
    c. Energy storage resources owned by third parties and deployed as a part of programs administered by the public utility or state agency shall be counted toward achievement of the final and interim targets.
    d. A single energy storage project may not count for more than 500 megawatts toward achievement of the final and interim targets.

Statutory Authority: § 56-585.5 of the Code of Virginia.

20VAC5-321-40. Energy Storage Plan.

An electric utility shall submit annually a plan to meet its energy storage target. This requirement shall expire when the energy storage target is deemed by the Commission to have been met.

1. The plan must include:

    a. A description of the utility's progress in meeting the energy storage target, including interim targets set forward by the Commission.

    b. Overall levels of installed and operational energy storage projects and energy storage projects under contract. The description should identify the development timeline of projects under contract that are not yet operational.

    c. An evaluation of the cost and benefits for the deployment of energy storage, including a description of the utility's cost benefit analysis framework for evaluating a specific energy storage project.

    d. Project-specific information, including but not limited to the following:

        i. The type of technology being deployed for each of the projects.

        ii. The nameplate capacity of the projects, in both megawatts and megawatt-hours.

        iii. The location of the projects, including the city and zip code, if the information is public.

        iv. The primary application of the energy storage projects, as well as secondary applications, if applicable.

v. The process by which the energy storage projects were procured, including if they were procured through a request for proposals, bilateral negotiations, or other means.

vi. Relevant dates for the project, including contract date and estimated commercial operation date for planned projects and actual commercial operation date for operational projects.

vii. The project owner and operator of each of the projects, including any information about the product manufacturer, if the information is public.

2. The plan must describe how energy storage resources are being modeled and considered in the existing utility planning processes, including whether the modeling tools were instructed to include energy storage technologies as part of the modeling process, what the cost assumptions and forward cost curve assumptions were for the energy storage technologies being modeled, and the source and date of those cost assumptions. Modeling tools must be able to capture sub-hourly system needs and benefits.

3. The plan must provide results from any request for proposals inclusive of energy storage that are able to be made publicly available, including the number of bids by technology, average or median prices, whether those bid were for standalone energy storage resources or projects co-located with a renewable or non-renewable energy source, and data related to project capacity in both megawatt and megawatt-hours.

4. The plan must describe the status of programs promoting the deployment of energy storage, including a description of the participation in each program and an assessment of subscription levels, incentive or compensation levels, and other program information. The plan may include recommended modifications to those programs.

5. The plan must be available for public comment.

Statutory Authority: § 56-585.5 E and § 56-585.5 D 4 of the Code of Virginia.

20VAC5-321-50. Cost/benefit Analysis.

Analysis of costs and benefits of an energy storage resource shall include benefits specific to energy storage that may not be captured in an evaluation of traditional supply resources, including but not limited to avoided costs to the distribution grid; avoided transmission costs; improvements to distributed energy resource and electric vehicle hosting capacity; modifications of load factor; resilience benefits; and complementary wholesale market services. Any report on the costs and benefits of an energy storage resource must include information on the utilization of the energy storage resource in providing its full range of available benefits.

Statutory Authority: § 56-585.5 D 4 and § 56-249 of the Code of Virginia.

20VAC5-321-60. Procurements.

The Commission shall require utilities to conduct solicitations for energy storage resources, including both procurements limited only to energy storage and all-source procurements that solicit solutions to

identified system needs and are open to all technologies. The Commission may require solicitations at least two years in advance of interim targets.

Procurements must be designed to accommodate a diversity of energy storage resources, business models, and ownership models, including but not limited to the following:

1. Stand-alone energy storage projects;
2. Hybrid resources that include co-located or integrated energy storage and generation and bid them as a single resource;
3. Virtual power plants that aggregate distributed energy storage systems and bid them as a single resource; and
4. Energy storage as a service.

The utility should provide all bidders equitable access to relevant electric system data, with appropriate confidentiality safeguards in place for privacy, system security, and public safety. The utility shall publish the method and criteria used to evaluate offers in advance so as not to advantage any party over another.

Utility procurement of services from an energy storage project owned by an entity other than the utility must offer the option of a contract of not less than 10 years in length.

Statutory Authority: § 56-585.5 E 5 of the Code of Virginia.

20VAC5-321-70. Behind-the-Meter Incentive Programs.

Plans to achieve energy storage targets shall include specific incentives for behind-the-meter energy storage facilities. These incentives shall consider the benefits of the energy storage facility, including but not limited to the resilience benefits for the Commonwealth or specific communities or customers. Participation in a behind-the-meter incentive program shall not prevent an energy storage facility from participating in other incentive programs or markets based on additional services the facility may provide.

Statutory Authority: § 56-585.5 E 5 of the Code of Virginia.

20VAC5-321-80. Non-wires Alternatives Programs.

Plans to achieve energy storage targets shall include opportunities to utilize energy storage resources as a non-wires alternative to traditional distribution infrastructure. In a non-wires alternative program, a utility shall identify one or more sites where there is anticipated need for distribution upgrades or investment and compare to alternatives, including energy storage. In considering whether energy storage is a cost-effective alternative, a full cost-benefit analysis must be conducted that considers the complete value of energy service benefits as described in Section 50.

Statutory Authority: § 56-585.5 E 5 of the Code of Virginia.

20VAC5-321-90. Peak Demand Reduction Programs.

Plans to achieve energy storage targets shall include peak demand reduction programs. Participation in a peak demand reduction program shall not prevent an energy storage facility from participating in other incentive programs or markets based on additional services the facility may provide.

Statutory Authority: § 56-585.5 E 5 of the Code of Virginia.

IV. PROPOSED AMENDMENT TO EXISTING REGULATIONS

ESA recommends that as Chapter 301 in Title 20, Section 5 of the Virginia Administrative Code be amended as follows.

20VAC5-301-30. Development of Resource Plan.

If a utility chooses to establish a bidding program, that program must be an integral part of the utility's long-term resource plan. The information in a utility's resource plan should determine the size of solicitations, the timing of the need and many of the evaluation criteria. The software models used by a utility for the development of long-term resource plans should be transparent and auditable to the extent practicable.

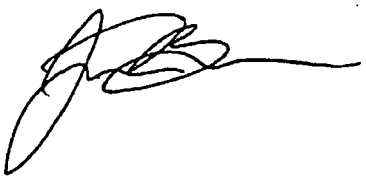
An electric utility's need for capacity as identified in its Request for Proposal (RFP) should be consistent with its long-term resource plans. The capacity need identified by an investor-owned electric utility should be consistent with the resource plans filed most recently with the Commission. If the RFP is not consistent with the resource plan, the company must justify any differences before an RFP is issued.

Statutory Authority: §§ 56-234.3, 56-234.4, 56-235.1 and 56-249 of the Code of Virginia.

V. CONCLUSION

ESA appreciates the opportunity to provide the Commission with proposed regulations implementing the energy storage target in the VCEA. The proposed language in this filing will enable the Commission to meet statutory direction and intent while continuing to provide the Commission with appropriate discretion on numerous matters of implementation.

RESPECTFULLY SUBMITTED, this 14th day of August, 2020:



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