

Virginia Electric and Power Company

# Virtual Power Plant ("VPP") Pilot

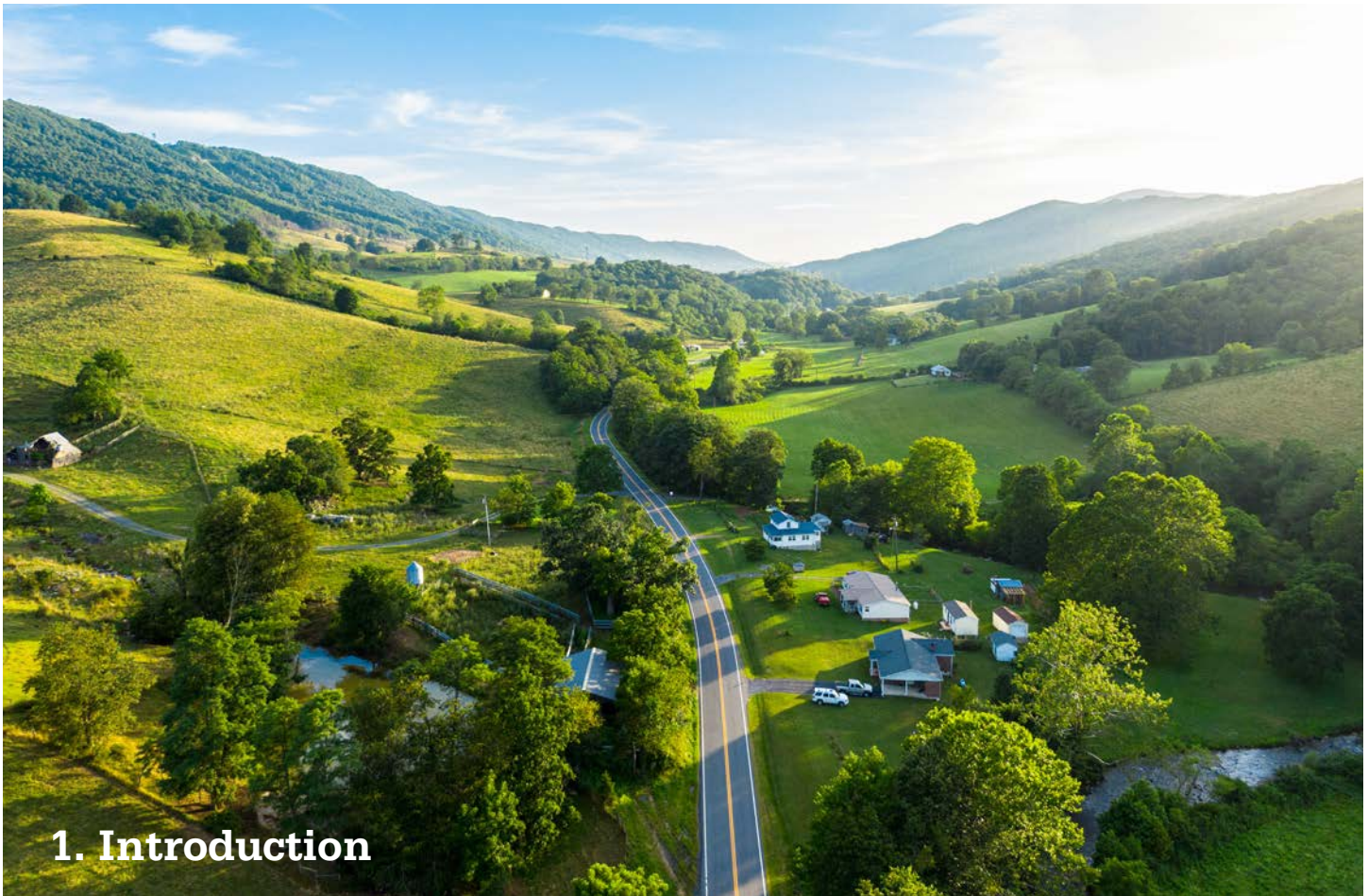


Powering Your Every Day.





<b>1</b>	<b>Introduction</b>	<b>3</b>
<b>2</b>	<b>Background of Virtual Power Plants and the Community Energy Act</b>	<b>5</b>
2.1	The Community Energy Act.....	5
2.2	“Virtual Power Plant” Definition.....	6
<b>3</b>	<b>Development of Dominion Energy Virginia’s VPP Vision</b>	<b>7</b>
3.1	Purpose and Objectives.....	10
<b>4</b>	<b>Dominion Energy Virginia’s Proposed VPP Pilot</b>	<b>11</b>
4.1	Design Principles.....	12
4.2	Pilot Objectives.....	12
4.3	Pilot Scope and Structure .....	13
4.3.1	Integration of DSM and DERMS .....	13
4.3.2	Tariff Structure.....	13
4.3.3	Customer Programs.....	14
4.3.4	Grid Services .....	19
4.3.5	Learning and Evaluation.....	19
4.3.6	Implementation .....	22
<b>5</b>	<b>Post-VPP Pilot and Strategies for Long-term Sustainability</b>	<b>23</b>
5.1	VPP Evolution .....	24
5.2	Ongoing Evolution After the Pilot .....	24
<b>6</b>	<b>Conclusion</b>	<b>26</b>
<b>Appendix A.</b>	<b>Definitions</b>	<b>27</b>
<b>Appendix B.</b>	<b>Compliance with Community Energy Act Requirements</b>	<b>29</b>
<b>Appendix C.</b>	<b>Virtual Power Plant Customer Participation Tariff</b>	<b>31</b>
<b>Appendix D.</b>	<b>Stakeholder Feedback</b>	<b>36</b>



## 1. Introduction

Virginia Electric and Power Company's ("Dominion Energy Virginia" or the "Company") mission is to provide the reliable, affordable, and increasingly clean energy that powers our customers every day. As a leader in the evolving energy landscape, the Company is pursuing a number of innovative new approaches to serve its customers. Virginia's Community Energy Act ("CEA") (House Bill 2346 and Senate Bill 1100 of the 2025 General Assembly Session), Virginia Code §56-585.1:16, affords the Company another opportunity to innovate by helping to accelerate Dominion Energy Virginia's efforts to develop a virtual power plant ("VPP").

A VPP dovetails neatly with the Company's above strategy as the Company strives to continue to meet the energy needs of customers. To that end, Dominion Energy Virginia is developing an innovative, advanced VPP that integrates distributed energy resources ("DERs") into routine planning and operations to optimize the delivery of energy, which will be achieved by integrating relevant demand-side management ("DSM") programs with the Company's Distributed Energy Resource Management System ("DERMS"), an advanced technology platform that is being deployed as part of the Grid Transformation Plan ("GT Plan").

Virginia's DSM framework is an exceptional launchpad for VPP programs, offering a tested and future-ready regulatory pathway. The state's cost-effectiveness structure—anchored in 20 VAC 5-304-20—requires utilities to apply multiple rigorous tests through 2028, including Total Resource Cost Test, Utility Cost Test, Participant Test, and Ratepayer Impact Measure Test. As approved by the Virginia State Corporation Commission (the "Commission") in Case No. PUR-2024-00120, beginning in 2029, the Company will use the Virginia-specific Jurisdictional Test ("JST"), which expands the evaluation to include utility system impacts like avoided energy and capacity, as well as non-utility benefits such as greenhouse gas reductions and



environmental improvements. This comprehensive approach aligns with the National Standard Practice Manual and positions VPPs to deliver not only grid services and customer benefits, but also broad public value. It is a forward-thinking framework that reflects Virginia's commitment to clean energy, carbon reduction, electrification, and equity—making it the perfect fit for scalable, impactful VPP initiatives.

What truly sets Virginia apart is its embedded stakeholder engagement and rigorous oversight. Dominion Energy Virginia's DSM stakeholder group includes over 300 active participants, facilitated by an independent monitor to ensure transparency, consensus-building, and co-design with community, industry, and advocacy groups. This collaborative model is ideal for VPPs, which require seamless coordination across DER owners, aggregators, and utilities. On top of that, Virginia's Evaluation, Measurement, and Verification ("EM&V") rules (20 VAC 5-318-50) demand annual evaluations using utility-specific data and statistically sound methodologies to validate actual versus projected savings. This level of scrutiny builds trust with regulators and stakeholders, ensuring VPPs

can demonstrate real-world performance and grid value. With annual reviews and updates under §56-585.1 A 5 of the Code of Virginia ("Va. Code"), programs can be refined, expanded, or sunset based on results—offering a flexible and accountable path for VPP pilots to evolve into permanent fixtures of Virginia's energy landscape. The excitement is real: Virginia's DSM framework is not just ready for VPPs—it is built for them.

This document provides a guide through the Company's vision for Virtual Power Plants and its proposed VPP Pilot. Section 2 offers essential background on VPPs, and the Community Energy Act. Section 3 details the Company's vision for the VPP. Section 4 presents the proposed VPP Pilot program, along with the Company's vision for the plan, its design, how it was developed, and the objectives it seeks to achieve. Section 5 focuses on the Company's post-pilot plans, the strategy for evolving its VPP Plan into a sustainable, impactful solution that leverages DERs to optimize value for customers and the grid, as well as approaches to learning and evaluation that will maximize the long-term benefits of the Pilot.



## 2. Background of Virtual Power Plants and the Community Energy Act

### 2.1 The Community Energy Act

In May 2025, Virginia Governor Glenn Youngkin signed House Bill 2346 and Senate Bill 1100 (the “**Community Energy Act**” or “CEA”), now codified at Va. Code § 56-585.1:16 into law. Passage of the CEA marked a significant step toward modernizing the Commonwealth’s energy infrastructure.

The legislation helps accelerate the Company’s efforts to develop its VPP, providing an opportunity to test innovative new programs and technologies. As a result of the legislation, the Company is scaling certain programs more rapidly (e.g., its residential battery storage program) and introducing innovative new programs (e.g., the Bring Your Own Device (“BYOD”) Aggregator Access program). Appendix B summarizes how the Company’s proposal meets CEA requirements.

This document is being submitted as an exhibit to PUR-2025-00211, in which the Company is petitioning the Commission for approval of two items in compliance with the CEA:

1. “to conduct a pilot program to evaluate methods to optimize demand through various technology applications including the establishment of virtual power plants,” and

2. “for a program tariff or variations of a tariff structure through which residential and commercial and industrial customers may enroll, either directly or through an aggregator.”

The CEA requires that item (1) be filed no later than December 1, 2025, and that item (2) be filed by November 15, 2026. The Company has chosen to petition for approval of both items simultaneously to maximize the time available to conduct the initial Pilot, which the CEA requires to conclude by July 1, 2028.

## 2.2 “Virtual Power Plant” Definition

A generally accepted definition of a VPP is that it is an **aggregation of distributed energy resources to provide grid services**, which aligns with how the CEA defines a VPP. The DERs within a VPP can include devices such as batteries, thermostats, electric vehicles (“EVs”), and other devices that can modify their use of electricity to provide value to the power grid. “Aggregation” happens when several or more of these resources are operated in coordination, enabling the delivery of power services at scale, similar to a traditional power plant.

VPPs can take many forms, and their design often depends on the technologies available and the goals of the program. A common example is the coordinated dispatch of smart thermostats to reduce system-wide peak demand. In this setup, customers agree to allow temporary adjustments to their thermostat settings, such as increasing the setpoint by 2° during a peak event, in exchange for a monetary incentive. This helps lower electricity consumption during critical periods, which can reduce both supply and infrastructure cost. This type of program is known as Demand Response (“DR”), which refers to strategies that encourage consumers to reduce or shift their electricity usage during peak times to support grid reliability and cost-effectiveness. While DR is a foundational element of many VPPs, it only begins to scratch the surface of what VPPs are capable of delivering.

Dominion Energy Virginia’s VPP goes beyond traditional DR by embracing inclusivity and innovation. The Company has designed its VPP to incorporate a wide variety of DERs (including thermostats, electric vehicles, and battery storage),

as well as allow customers to participate even if they do not have controllable technologies, for example through PeakTime Rebates (“PTR”) or Non-Residential Curtailment programs. This ensures that a broader range of customers, including those without advanced DERs, can still contribute to and benefit from the VPP. By opening the door to more participants, the Company is not only expanding the reach of grid flexibility but also reinforcing its commitment to equity, customer empowerment, and community-driven energy solutions.

In developing its vision for the VPP, the Company looked to leading examples of utility VPPs around the country and identified several key characteristics of an **advanced VPP**:

- They are **device-agnostic**, increasing the pool of eligible DERs,
- They deliver **multiple grid services**, increasing the value that can be delivered from participating DERs,
- They facilitate both **direct and aggregator participation pathways**, helping to drive innovation and scale by leveraging the resources and approaches of multiple partners,
- They utilize **creative incentives** to attract participants and drive performance, and
- They leverage **advanced technology** (e.g., DERMS) to operate VPPs at scale in a manner that maintains system reliability and maximizes value for customers and the grid.

By applying these principles, the Company plans to establish itself as an industry leader in utility VPPs.

---

<sup>1</sup>The CEA defines a VPP as “an aggregation of distributed energy resources, enrolled either directly with an electric utility or indirectly through an aggregator, that are operated in coordination to provide one or more grid services.” Va. Code § 56-585.1:16 A.





### 3. Development of Dominion Energy Virginia's VPP Vision

The Company's vision for its VPP, which looks beyond the Pilot period to identify what the Company ultimately seeks to achieve over time, was informed by several considerations including:

- Understanding of relevant drivers and trends;
- Experience with DR programs and DERMS development;
- Industry best practices for utility VPPs; and
- Input from local and industry stakeholders.

Each of these considerations is described further below.

#### DRIVERS AND TRENDS

While VPPs have become more prevalent and advanced over time, advanced VPPs are still relatively new. Several industry trends have been driving the development of VPPs, including:

- **DER proliferation** – A growing number of customers are adopting DERs – including smart thermostats, batteries, and electric vehicles – that can be leveraged to help provide grid services by modifying their electricity consumption, principally by reducing electricity consumption during times of coincident peak demand.
- **Technology advancement** – In parallel, advances in “smart” technology are enabling better communication

and coordination of these DERs, enabling them to be coordinated in aggregate to form a VPP. These technology advances are occurring at both the level of individual DERs, as well as in the platforms that communicate with them, including DERMS.

- **Growing electricity demand** – Electrification of both heating and transportation is on the rise as customers seek to reduce energy costs and support decarbonization. Meanwhile, digitization is driving demand for data centers and electricity to power them. By reducing demand during peak times, VPPs can help to support this growing demand, helping to reduce the associated costs to electricity customers.

Over time, the proliferation of DERs and electrification is expected to drive greater strain on distribution capacity at a more localized level. For example, certain circuits with high penetrations of electric vehicles and heat pumps may cause local peak demand to exceed the current available distribution capacity. However, a VPP with capabilities for localized dispatch could coordinate these loads to reduce peak demand and potentially defer or avoid the need to build new distribution infrastructure.

Furthermore, with DERs having greater access to wholesale markets (e.g., as a result of Federal Energy Regulatory Commission (“FERC”) Order 2222),<sup>2</sup> large and sudden fluctuations in load may occur in response to price signals. These fluctuations can make it more challenging to maintain reliable power quality. However, a VPP could help to both limit reliability risks and maximize market value.

### EXPERIENCE WITH DR PROGRAMS AND DERMS

**Dominion Energy Virginia has, for years, been laying the foundation** to make this advanced VPP vision a reality. As part of its GT Plan, the Company has been developing its DERMS, a critical technological system to enable the integration of DERs into grid operations, offering greater visibility, communication, control, and automation. The Company initiated DERMS deployment in 2021 as part of Phase II of its GT Plan and recently went live in 2025. Beyond serving as a foundational technology platform for the VPP, DERMS offers broader capabilities to monitor, control, and optimize increasing levels of DERs on the Company’s system to maintain a safe and reliable grid while supporting growing DER adoption.

DERMS will leverage an established portfolio of DSM programs, as well as innovative new programs, to access flexible DER capacity (see Section 4.3.3 for a description of programs proposed to be included within the VPP). With its existing portfolio of DR programs, the Company has been able to deliver over 60 megawatts (“MW”) of system peak demand reduction. From delivering its DSM programs, the Company has developed an understanding of drivers of participation, as well as circumstances that cause customers to either drop from programs or opt out of events. The Company continues to address barriers around enrollment processes, a lack of program awareness, and fragmented program structures. While these programs have been very effective in delivering system peak reduction, the growing number of customers with multiple eligible DERs – as well as the growing number of aggregators seeking to coordinate these DERs – drives the need for having a more flexible and integrated program structure that can continually evolve, rather than a portfolio of distinct programs that all operate under different timeframes and participation terms.

The Company has developed a multi-stage deployment plan and a detailed project management plan for deploying the DERMS platform. As part of GT Plan Phase II, the Company is deploying the DERMS platform to integrate existing DSM programs (e.g., smart thermostats, electric chargers, distributed generation), and utility scale front-of-the-meter and behind-the-meter solar systems. The DERMS platform also has the capability to integrate with the existing fleet of electric school buses, one distribution battery energy storage system pilot project, and future battery energy storage system pilot projects. With respect to GT Plan Phase III, the Commission approved the implementation of DERMS in Case No. PUR-2023-00051, which provides the Company with the funding to support the DERMS licensing and implementation costs associated with the Company’s compliance plan for the Virginia Clean Economy Act of 2020. Phase III will also integrate the DERMS platform with the Customer Information Platform and other operational systems. The Company expects to build further capabilities to implement FERC Order 2222 and virtual power plants, as we continue firming up the requirements.

Based on this experience, the Company developed the “GRid Integration & Demonstration of FLEXible Energy Resources (GRID-FLEXER)” project in response to Department of Energy’s funding opportunity announcement. GRID-FLEXER is a DERMS demonstration project that will combine the established energy generation resources of participating consumers, then optimize and manage their use in real-time to support safe, reliable, and affordable grid operations. The concepts developed for the GRID-FLEXER project form the foundation for the Company’s VPP vision.

### INDUSTRY BEST PRACTICES

To develop a well-informed vision for its VPP, the Company sought to learn from peer utilities to understand the characteristics of utility VPPs that can drive greater enrolled DER capacity and increase the value delivered from participating DERs. The Company engaged an external consultant (Guidehouse) to bring an industry-wide lens to inform in the development of the VPP vision and Pilot.

---

<sup>2</sup> *Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators, FERC Docket No. RM18-9-000, Order 2222 (Sept. 17, 2020).*

<sup>3</sup> *This value comes from the 2024 Evaluation, Measure, and Verification Report produced by DNV, the Company’s independent evaluation contractor. See Dominion Energy Virginia’s Evaluation, Measurement & Verification Report prepared by DNV, Case No. PUR-2023-00217 (June 16, 2025) (“2024 EM&V Report”). The total peak reduction capacity includes DR programs that may not fall within the scope of the VPP. For example, the Non-Residential Distributed Generation program provided 6 MW of system peak reduction, but includes resources that do not meet CEA requirements for inclusion within the VPP.*



As described in Section 1, several key characteristics were identified that distinguish advanced, industry-leading VPPs:

- They are **device-agnostic**, enabling a wide range of DERs to participate.
- They deliver **multiple grid services**, going beyond system peak reduction to, for example, reduce local peaks to possibly defer the need for upgrading power distribution infrastructure to meet growing local demand.
- They facilitate both **direct and aggregator participation pathways**, allowing customers to enroll directly through utility programs or through third-party aggregators, who may offer customers other participation options to deliver services to utilities, thereby driving innovation and scale.
- They utilize **creative incentives** to drive participation and performance, for example pay-for-performance incentives that compensate participants based upon the amount of peak reduction delivered.
- They **leverage advanced technology** (e.g., DERMS), which is particularly important to operate VPPs at scale in a manner that maintains system reliability and maximizes value for customers and the grid.

The Company used these characteristics to help guide the development of its VPP vision and Pilot.

## STAKEHOLDER INPUT

Dominion Energy Virginia solicited input from a diverse group of stakeholders including customers, local government, non-government organizations (“NGOs”; e.g., community organizations, environmental advocacy groups, and industry trade associations), and various DER technology and service providers (e.g., manufacturers, installers, aggregators, program implementers, and software providers).

To solicit input, the Company developed a dedicated VPP webpage that included a VPP Stakeholder Feedback Portal to provide a structured mechanism for gathering and synthesizing open, detailed feedback from diverse stakeholders. To help inform stakeholders’ input, the

webpage provided information – including through a recorded webinar – regarding VPPs, the Community Energy Act, and the Company’s plans for the Pilot and beyond. The Company reached out to over 325 stakeholders representing the aforementioned stakeholder groups and received 48 responses. The Stakeholder Feedback Report provides detailed analysis and synthesis regarding the responses received and how this stakeholder input has been incorporated into the Company’s Pilot design.

In parallel, the Company conducted a stakeholder engagement process to inform the proposed scope and design of DSM-XIV programs. As part of that process, the Company conducted a live public stakeholder forum on October 21, 2025. A significant portion of the meeting was dedicated to discussion of the VPP Pilot and related DSM programs. The Company’s DSM-XIV filing includes a detailed report describing both stakeholder engagement processes and their impacts on both the DSM-XIV filing and this VPP Pilot filing.

The Company will continue to actively engage customers, aggregators, and other stakeholders during and following the VPP Pilot – including through established DSM stakeholder engagement processes and program evaluation activities. This stakeholder input will be critical to achieve the Company’s Pilot learning objectives and inform the continued development of an advanced VPP that will offer innovative programs, drive greater participation, support a wider variety of grid services, and – as a result – deliver greater value to the grid, Dominion Energy Virginia’s customers, market partners, and the communities the Company serves.

## 3.1 Purpose and Objectives

Building upon the various sources of input described above, the Company's VPP seeks to:

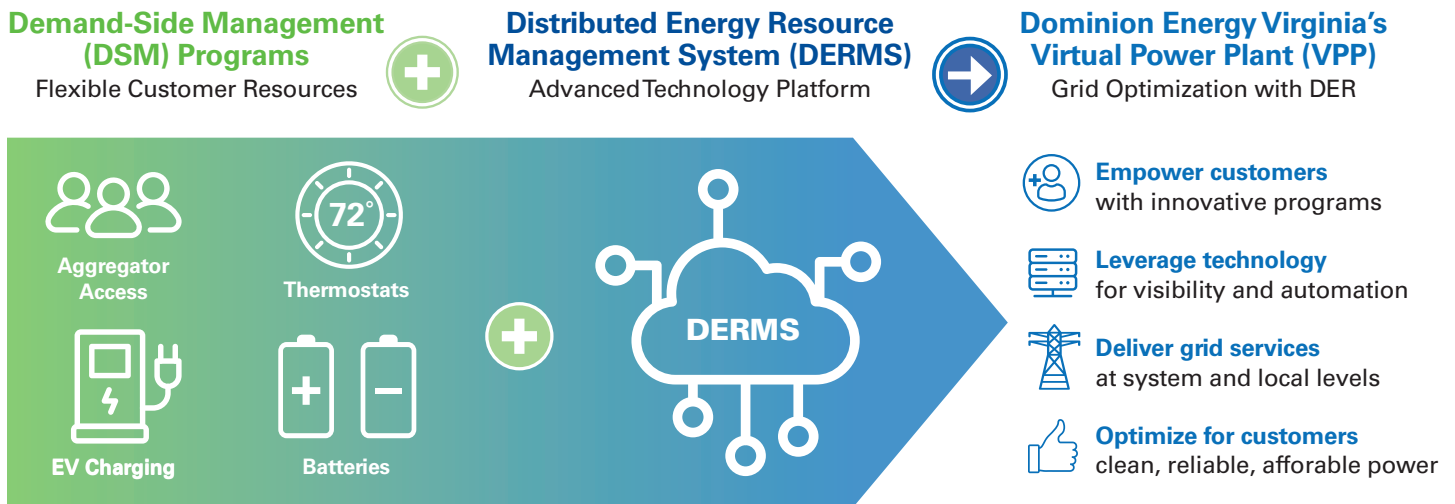
- **Operationalize a trusted platform (DERMS)** to leverage DERs for daily grid optimization,
- **Deliver grid services** with DERs that go beyond system peak reduction to include locational and market services,
- **Integrate DERMS with DSM programs** – specifically demand response and DER programs – to provide a pathway for customers and DERs to provide flexible capacity, and
- **Operate streamlined and flexible DR/DER programs** that will enable the Company to be agile and responsive to both grid and customer needs.

By developing an advanced VPP that effectively leverages DERs at scale to optimize the power grid, the Company will deliver significant value to its customers by:

- Leveraging greater DER visibility, communication, and intelligence to **enable greater adoption of DERs while maintaining system reliability**,
- Better utilizing existing grid capacity to **keep rates affordable**, and
- Providing programs that **empower customers** to better manage their energy consumption and energy bills.

These objectives provide the foundation for a future-state vision of the Company's VPP, helping to inform Pilot design, implementation and evaluation, as well as plans for the VPP following the initial Pilot period.

**Figure 1. Dominion Energy Virginia's VPP Vision**





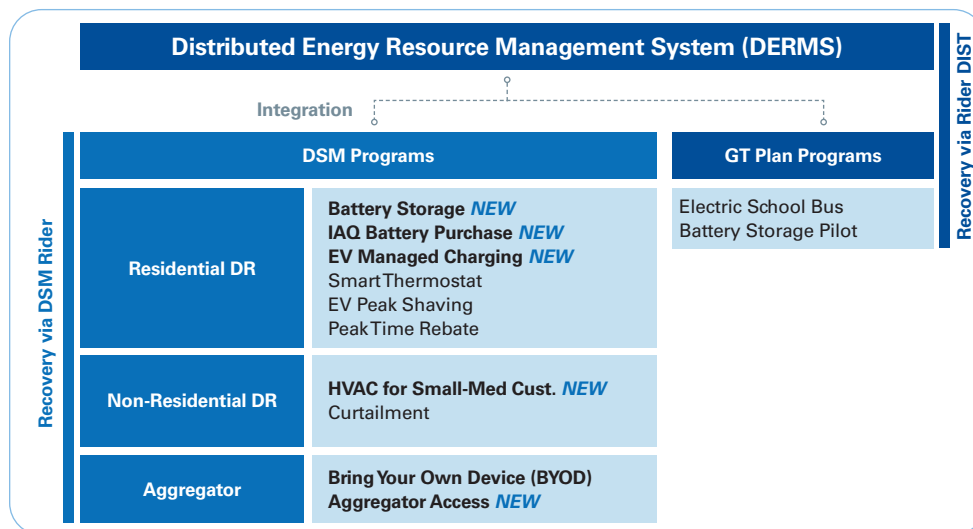
## 4. Dominion Energy Virginia's Proposed VPP Pilot

The Company has crafted an innovative VPP Pilot proposal that builds upon stakeholder input and industry best practices, supports the development of an advanced VPP that will deliver valuable grid services at scale, and empowers DER owners to better manage their own energy needs while also facilitating the delivery of reliable, affordable and increasingly clean power to all customers.

Section 3 summarizes the high-level scope of the Company's proposed VPP Pilot, which will integrate both existing and new DSM programs with DERMS. Figure 2 also illustrates how the Company plans to recover costs associated with the VPP. The Company will be separately filing for cost recovery through the DSM filing and GT Plan component of Rider DIST. Most of the proposed customer programs for the Pilot are subject to approval within the Company's Demand-Side Management

Phase XIV ("DSM-XIV") filing (submitted concurrently with this VPP Pilot filing). Some Pilot programs and investments fall within the Company's Grid Transformation Plan, including investments in the Company's DERMS platform, Non Wires Alternative ("NWA") Battery Energy Storage System ("BESS") Pilot, and a future expansion of the Electric School Bus Program.<sup>4</sup>

**Figure 2. Integrating DR Programs with DERMS to form Dominion Energy Virginia's VPP<sup>5</sup>**



<sup>4</sup> DERMS investments and the NWA BESS Pilot have already been approved within the GT Plan and costs are recovered through Rider DIST. Costs for the existing Electric School Bus Program are currently recovered in base rates. The CEA requires that an expanded electric school bus program be filed for approval in a future GT Plan proceeding by December 31, 2027.

<sup>5</sup> Program names within this figure are abbreviated. See Section 4.3.3 for the specific list of programs proposed for inclusion within the VPP.

## 4.1 Design Principles

The Company applied the following design principles to its proposed Pilot:

- **Support long-term VPP objectives** –To deliver long-term value, the Pilot should advance capabilities and generate insights that help to shape ongoing VPP development and inform a permanent program that will facilitate realization of VPP objectives. After the CEA was passed, the Company revisited its long-term vision for the VPP (see Section 5) to provide focus for the Pilot.
- **Comply with legislative requirements** –The Company worked to carefully ensure that the Pilot meets all associated requirements within the CEA (see Appendix B).
- **Drive innovation** – Moreover, the Company seeks not just to comply, but to meaningfully move the needle toward the development of an industry-leading utility VPP. This includes embracing new technologies, programs, customer engagement strategies, and internal operating models. While the Company may face challenges implementing some of these innovative approaches within the Pilot, the Company will learn from its experience and better position itself to drive significant value for customers at scale.
- **Learn from industry benchmarks** –To most effectively drive successful innovation, the Company sought to learn from best practices among leading utility VPPs around the country. These insights (see Section 3) helped to inform the Company's overall VPP vision and identify specific opportunities to move toward that vision within the Pilot.
- **Incorporate diverse stakeholder input** –To tailor industry-leading practices for the specific customers and communities that the Company serves, as well as the partners that help deliver DER technologies, programs, and other services, the Company solicited input from diverse stakeholders to help inform its Pilot. The Stakeholder Feedback Report describes the feedback provided by stakeholders and how this informed the Pilot design.
- **Build upon existing capabilities** – Finally, the Pilot must be feasible to execute within the timeframe defined by the CEA and associated timelines for DSM programs and DERMS (see Figure 6 in Section 5.1). The Company sought to accelerate some of its existing plans, as well introduce innovative new concepts (e.g., the BYOD Aggregator Access program) that could be reasonably executed during the Pilot timeframe.

## 4.2 Pilot Objectives

Taking into account the Pilot design principles above, the Company seeks to accomplish the following objectives through the design, implementation, and evaluation of its VPP Pilot:

- **Refine long-term vision and plans** –The CEA requires the Commission to, following the Pilot, “initiate a proceeding to establish a permanent program.” The outcomes of the Pilot will help to refine the Company's VPP plans and inform the development of an ongoing VPP program structure.
- **Enhance integration of DERMS with DR programs** – Efforts to further integrate DERMS with DR programs will help to expand DER visibility, communication, and control, as well as increase the value that DERs can deliver to customers and the grid. Furthermore, any challenges with this integration will help to inform and prioritize future DERMS development efforts.
- **Test new programs and participation models** –The Company seeks both to demonstrate the value that innovative programs can offer, while also understanding the challenges they may present, which will help to refine program design moving forward.
- **Lay foundation for diverse grid services** –The Company seeks to test the ability of DERMS to facilitate the delivery of grid services beyond system peak reduction. While such capabilities may be limited during the initial Pilot period, the Company will – at a minimum – study the benefits and operational requirements associated with various grid services in order to help incorporate additional grid services into the VPP over time.
- **Build operational confidence** – In order for grid operators to utilize the VPP most effectively for day-to-day grid optimization, they need to be able to have a reasonable expectation of what the VPP will deliver in response to events. Through the Pilot, the Company seeks to better understand how different resources perform, what drives variations in performance, and how performance could be improved over time.



### 4.3 Pilot Scope and Structure

The following sections provide further detail regarding the proposed scope and structure of the Pilot to successfully deliver on the objectives above. As illustrated in Figure 3 (within Section 4), the Company's VPP will be enabled by the integration of its DERMS with DR/DER programs, both existing and new. During the Pilot, the Company will enhance integration between DERMS and DSM programs, introduce innovative new programs, demonstrate and assess the opportunities and benefits of various grid services, and generate significant learning value to inform future VPP evolution.

#### 4.3.1 INTEGRATION OF DSM AND DERMS

DSM programs (in particular DR/DER programs that leverage flexible customer resources that can modulate their consumption in response to grid events) and the Company's DERMS (the primary technology for enabling coordination with these devices) are the foundational elements on which the Company is building an advanced VPP that aggregates DERs in a coordinated fashion to deliver valuable services to the grid and customers.

The Company has already begun to integrate the DERMS with some of its DR programs, including its EV and smart thermostat programs. During the course of the Pilot, DERMS will be integrated with operational systems like the advanced distribution management system, and other systems such as advanced metering infrastructure ("AMI"), enabling enhanced grid awareness. DERMS will also have real-time capabilities to support implementation of FERC Order 2222.

#### 4.3.2 TARIFF STRUCTURE

The Company is including its petition for a "tariff or variations of a tariff structure" within this Pilot program filing, rather than waiting until November 2026, in order to maximize the available window for testing and evaluation of Pilot programs.

The CEA requires that the tariff:

- a) Allow customers with technologies, including battery storage, non-battery storage, smart thermostat, or managed EV charging technologies, to enroll their eligible technologies in the pilot;
- b) Provide a mechanism to incorporate existing programs, including smart thermostat DR, EV charging programs, and battery storage programs;
- c) Specify compensable grid services for each eligible technology, including peak demand reduction, voltage support, and emergency services;
- d) Specify pay-for-performance compensation mechanisms for such grid services;<sup>6</sup> and
- e) Provide a mechanism "through which residential and

commercial and industrial customers may enroll, either directly or through an aggregator."<sup>7</sup>

As discussed in Section 1, costs associated with DSM programs are recovered through the DSM Rider, while costs associated with DERMS and NWA BESS Pilot are recovered through the GT Plan component of Rider DIST. The Company therefore proposes to leverage these established and proven mechanisms for its VPP. The Company's proposed VPP Customer Participation Tariff will utilize the existing DMS Rider – specifically the C1A Peak-Shaving Increment Rider currently used for DR programs – for tracking and recovery of costs associated with DSM programs that are included within the VPP. Leveraging the established DSM structure for the VPP will help to readily incorporate existing programs, utilize tested and future-ready regulatory pathways, apply consistent standards for cost-effectiveness and evaluation, support coordination between programs within and outside of the VPP, and integrate the embedded stakeholder engagement activities and rigorous oversight established for DSM programs. The Company's DSM stakeholder group includes over 300 active participants, facilitated by an independent monitor to ensure transparency, consensus-building, and co-design with community, industry, and advocacy groups. This collaborative model is ideal for VPPs, which require seamless coordination across DER owners, aggregators and utilities.

The programs proposed for inclusion included within the VPP Pilot (see Section 4.3.3) encompass battery storage, smart thermostats, managed EV charging, and other devices, providing a mechanism through which customers can enroll their devices in the pilot, which addresses item (a) above. These programs include a combination of both new and existing programs, which addresses item (b) above. New programs are proposed within the Company's DSM-XIV filing and are subject to Commission approval.

With approval from the Commission, customers will have the option of enrolling (i) through a participating aggregator in the Company's device-agnostic Bring Your Own Device (BYOD) Aggregator Access program, (ii) directly through Dominion's 1,000-customer pilot within the program, or (iii) enrolling directly through one of the Company's other DR programs, which addresses item (e) above. In the BYOD program, participants (including aggregators and directly enrolled customers) will be compensated through a pay-for-performance structure – which addresses item (d) above – while other programs will have compensation structures that vary by program and are tailored to the specific eligible measures within each program. Insights from the Pilot regarding these different incentive structures will help to inform the design of future VPP participation incentives.

<sup>6</sup> Va. Code § 56-585.1:16 C.

<sup>7</sup> Va. Code § 56-585.1:16 D.

Across all customer programs within the VPP Pilot, the participation terms and incentives compensate customers for providing load flexibility, regardless of the grid service. This is critical to provide flexibility for the Company to be able to test and demonstrate different grid services during and following the Pilot. In general, each program specifies that customers will receive a certain incentive amount for participating in events, with limits on the number and duration of events within a given time period. The Company may choose to call on all participants for a system-wide event or may choose to call on a select group of participants on a specific circuit for a more localized event. Meanwhile, the Company has begun a Value of DER study to better understand the benefits and operational characteristics of various grid services. Over time, the Company may choose to offer different types of compensation for different services. In the meantime, the current approach provides an elegant solution to be

able to test and evaluate a variety of potential grid services – which may include system peak demand reduction, local transmission and distribution support, resiliency and reliability services, ancillary services (e.g., voltage support), and/or emergency services. Collectively, these approaches address item (c) above.

#### 4.3.3 Customer Programs

Table 1 provides a summary of the programs proposed to be included within the Company's VPP Pilot. Further details regarding these programs are available within the Company's respective DSM and GT Plan filings. In addition to the programs specified below, the Company may consider adding more VPP programs to the Pilot through its DSM-XV filing. Section 4.3.5 describes the Company's learning objectives associated with these programs and how evaluation of this Pilot will help to inform the design of future programs.

**Table 1. Programs Included Within VPP Pilot**

PROGRAM <sup>8</sup>	SUMMARY
<b>NEW<sup>9</sup></b> <b>Bring your Own Device (BYOD) (DR) Aggregator Access Pilot</b> <b>DSM-XIV</b>	<p>Device-agnostic program that allows enrolled aggregators to receive pay-for-performance compensation for delivering flexible capacity from distributed energy resources.</p> <p><i>Eligible measures:</i> Under this device-agnostic program, a wide variety of measures may be eligible for the program, including thermostats, batteries, EVs, behavioral measures, and more. Fossil fuel-based distributed generation resources are not eligible.</p> <p><i>Eligible customers:</i> Residential, commercial, industrial, and vendor managed customers may participate through an approved aggregator. Up to 1,000 customers may directly enroll with the Company as an aggregator.</p>
<b>Residential Battery Storage Pilot (DR)</b> <b>DSM-XIV</b>	<p>Device-specific pilot program that provides an upfront incentive and pay-for-performance incentives to residential customers for discharging approved home battery systems during peak demand or grid service events.</p> <p><i>Eligible measures:</i> Program-approved residential battery storage energy systems, either standalone or paired with solar, that meet interconnection and operational requirements.</p> <p><i>Eligible customers:</i> Residential customers with existing approved battery devices who are served under a residential rate schedule; net metering customers may participate but will not receive duplicate incentives for exported energy.</p>

*continued >*

<sup>8</sup> More information about each of the proposed and existing programs can be found in the respective regulatory filing in which the program was proposed. See Case Nos. PUR-2025-00210; PUR-2024-00222; PUR-2023-00217; PUR-2022-00210; PUR-2021-00247; PUR-2020-00274, PUR-2019-00201.

<sup>9</sup> New programs are proposed in the Company's DSM-XIV filing and are subject to Commission approval.



PROGRAM <sup>8</sup>	SUMMARY
<p><b>Residential Income and Age Qualifying (IAQ) Battery Storage Pilot (DR)</b></p> <p><i>DSM-XIV</i></p>	<p>Pilot provides income and age qualifying (IAQ) residential customers with a no cost battery energy storage system (BESS) installation by a qualified battery storage installer. The pilot will target IAQ customers who have previously participated in the Company's DSM Phase IX House Bill 2789 Solar Pilot, who had photovoltaic solar panels installed at their residence. All IAQ customers who receive a free battery energy storage system are expected to participate in the demand response events of the pilot.</p> <p><i>Eligible measures:</i> 13.5 kWh Tesla Powerwall 3 Energy Storage Battery System, installed at no cost to participating customers (approximate value of \$20,000).</p> <p><i>Eligible customers:</i> Any household whose annual income does not exceed 80% of the local area median income as set forth by Virginia Housing or 60% of the state median income as determined by Virginia Department of Housing and Community Development, whichever is greater. It is also available to customers who are 60 years or older with a household income of 120% of the state median income.</p>
<p><b>Residential Electric Vehicle Managed Charging Pilot and Residential Managed Charging Pilot TOU (DR)</b></p> <p><i>DSM-XIV</i></p>	<p>The program offers qualifying residential customers on TOU rate schedule and non-TOU rate schedule who have an electric vehicle with year-round opportunity to participate in a managed charging strategy that reduces load during peak system demand.</p> <p>This approach supports the Company's growing demand needs while helping qualifying residential customers in high-growth areas manage their charging more efficiently.</p> <p><i>Eligible measures:</i> Provide daily, proactive management of EV charging across the entire system (bulk and distribution) while expanding participation to more customers. Manage bulk system peaks and local distribution constraints such as transformer and feeder loading. Overall, this will provide greater flexibility to meet the exponential load growth throughout the Commonwealth of Virginia.</p> <p><i>Eligible customers:</i> All residential customers on the TOU rate schedule and non-TOU rate schedule who have a level 1 and level 2 charger and telematics-compatible vehicle charging are eligible for the program.</p>
<p><b>Non-Residential HVAC for Small and Medium Sized Business Customers (DR)</b></p> <p><i>DSM-XIV</i></p>	<p>The Small and Medium Business (SMB) Demand Response (DR) Program is a peak demand response (DR) program through which DR events are called by the Company during times of peak system.</p> <p><i>Eligible measures:</i> Thermostats of participating small business customers would be adjusted to achieve a specified amount of load reduction while maintaining reasonable facility comfort through a gradual change in business temperature and allowing customers to opt out of specific events if they choose to do so.</p> <p><i>Eligible customers:</i> The Program would be available to non-residential customers who have not opted out of paying the DSM Rider and who do not exceed the 400-kW demand threshold.</p>

*continued >*

PROGRAM	SUMMARY
<b>EXISTING</b>	
<b>Residential Smart Thermostat</b>  <b>DSM-XII</b>	<p>Program is a peak demand response program through which demand response is called by the Company during times of peak system demand throughout the year and thermostats of participating customers would be gradually adjusted to achieve a specified amount of load reduction while maintaining reasonable customer comfort and allowing customers to opt-out of specific events if they choose to do so. Participating customers receive an annual incentive for participating in a specified set of DR events.</p> <p><i>Eligible measures:</i> Program-approved smart thermostats that are Wi-Fi enabled and capable of participating in demand response events.</p> <p><i>Eligible customers:</i> Residential customers who are served under a residential rate schedule.</p>
<b>Residential EV Peak Shaving (DR)</b>  <b>DSM-VIII</b>	<p>The Residential Electric Vehicle Peak Shaving Program is for customers who already have a qualifying Level 2 charger and wish to participate in the demand response component only (no purchase incentive).</p> <p><i>Eligible measures:</i> Level 2 EV charger.</p> <p><i>Eligible customers:</i> The program is available to residential customers in the Company's Virginia service territory who are on a residential rate schedule and who already have a qualifying Level 2 charger.</p>
<b>Residential Peak Time Rebate (DR)</b>  <b>DSM-XI</b>	<p>Program enables residential customers to reduce their energy consumption during peak time periods as called upon by the Company. During peak time rebate event days, enrolled customers receive alerts via text messaging, emails or outbound telemarketing voicemail, and the Company's website to inform them of the event. The post-event communications will include the following:</p> <ul style="list-style-type: none"> <li>• Text messaging acknowledging the customer's participation, with a statement of savings</li> <li>• Ongoing behavioral messaging and nudges, reinforcing the behavioral model</li> <li>• On-going maintenance messaging using bill inserts and bill messaging post education campaign</li> </ul> <p><i>Eligible measures:</i> Behavioral changes in consumption.</p> <p><i>Eligible customers:</i> All customers who are on a residential rate schedule, have an AMI meter, and are not otherwise enrolled in one of the Company's demand response programs.</p>

*continued >*

PROGRAM	SUMMARY
<b>Non-Residential Curtailment (DR)</b>  <b>DSM-XIII</b>	<p>Program targets medium sized and large commercial and industrial (C&amp;I) customers to curtail their energy usage using manual load curtailment during times of peak system demand. Most of the load curtailment is managed by reducing the energy consumption of equipment including and not limited to motors, compressors, HVAC, and charging, other energy consuming processes that do not involve equipment can contribute as well. This load management may be manually or automatically triggered by the customer during an event.</p> <p><i>Eligible measures:</i> Automated demand response; manual demand response.</p> <p><i>Eligible customers:</i> Program is available to non-residential customers who have not opted out of paying the DSM Rider and qualifying customers who are currently not enrolled in Schedule 10.</p>
<b>Electric School Bus Program</b>  <b>Base rates<sup>10</sup></b>	<p>The Company's Electric School Bus Program supports Virginia public school districts in replacing diesel school buses with electric models. The program provides utility coordination, grid upgrades, construction, and charger installation in exchange for the ability to use the buses for vehicle-to-grid (V2G) support when they are not being used for pupil transportation.</p> <p><i>Eligible measures:</i> School districts will be asked to enter a Participation Agreement with The Company and procure approved V2G program buses.</p> <p><i>Eligible customers:</i> Public school districts in the Company's service territory who are awarded vehicle funding through approved state and federal funding programs.</p> <p>As required by the CEA, the Company will file for a proposed broadening of this program within a GT Plan filing prior to December 31, 2027.</p>
<b>Non-Wires Alternative Battery Energy Storage System Pilot</b>  <b>GT Plan-Phase II</b>	<p>This pilot explores the use of front-of-the-meter batteries to defer or replace traditional grid infrastructure upgrades. These pilots aim to enhance reliability, support renewable integration, and validate the operational benefits of BESS in targeted distribution areas. The program is part of the Company's broader Grid Transformation Plan and aligns with efforts to modernize the grid through innovative, cost-effective solutions.</p> <p><i>Eligible measures:</i> Front-of-the-meter utility-scale batteries sized and sited to address specific distribution needs.</p> <p><i>Eligible customers:</i> Not applicable, as these are utility-owned assets that are not installed on customers premises.</p>

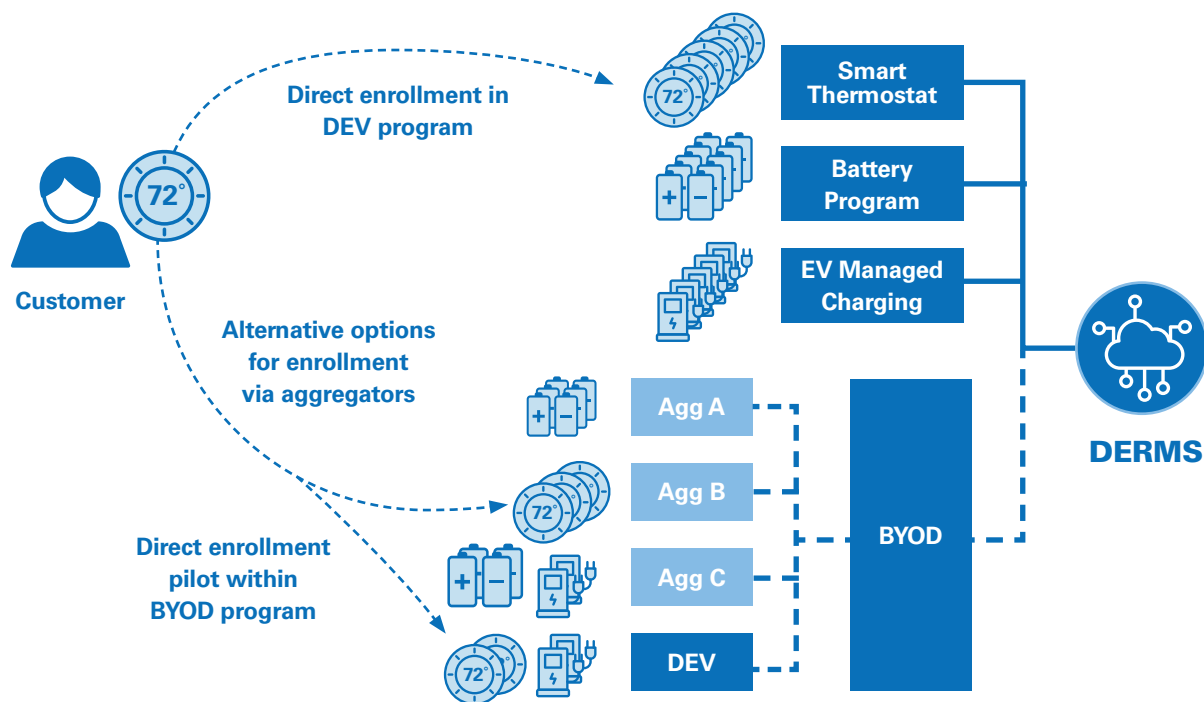
<sup>10</sup> The existing Electric School Bus Program is currently funded through base rates.



A centerpiece of the VPP Pilot is an **innovative Bring Your Own Device (BYOD) Aggregator Access program** that enables aggregator participation and serves as a prototype for future VPP program offerings. The program design was based upon similar programs from leading utilities around the country. Pay-for-performance incentives will be used to compensate aggregators for providing flexible DER capacity and successfully delivering load reduction during grid events. This outcome-based incentive structure enables the program to be device-agnostic. Any DERs that meets CEA requirements may be eligible to participate, whether or not that measure is eligible for another Company DR program (including – but not limited to – smart thermostats, battery storage, EV charging, and behavioral measures).<sup>11</sup> This program will galvanize aggregators to acquire flexible DER capacity and help the Company scale its VPP.

Customers will have the option of enrolling in the VPP directly through the Company's portfolio of DR programs or through a participating aggregator, who may offer a different type of participation model (e.g., different devices, event participation options, and/or incentives). Furthermore, as part of the Pilot, the Company will serve as a participating aggregator in the BYOD program, and up to 1,000 customers will have the option of enrolling directly with the Company's implementation vendor. Through this program, customers will be empowered with more options, aggregators will have the flexibility to innovate, and successful aggregators will be rewarded for delivering flexible and reliable DER capacity. Figure 3 provides an illustration of how the aggregator-based BYOD program will operate in parallel with the Company's existing portfolio of programs.

**Figure 3. Direct and Aggregator Participation Pathways for the VPP Pilot<sup>12</sup>**



<sup>11</sup>CEA requirements for VPP eligibility include that individual DER must have less than 5 MW capacity and that distributed generation assets may not be directly powered by fossil fuels. If a DER is eligible for multiple DR programs, that resource may not enroll in both the BYOD program and another DR program. Other eligibility requirements may be determined in coordination with the Company's program implementer(s).

<sup>12</sup> This figure is illustrative and does not include all programs within the VPP.

#### 4.3.4 GRID SERVICES

The Pilot will test and evaluate the ability of the VPP to optimize demand using DERs in two key ways – (1) demonstrating and evaluating the delivery of grid services by leveraging integration of DERMS with DR programs and (2) conducting a Value of DER study to assess the benefits and operational characteristics associated with various grid services that DERs may be able to provide.

At a minimum, the Company will leverage its DERMS to facilitate the coordination, monitoring, and evaluation of system coincident peak demand events. Execution of these events will demonstrate the ability to leverage DERMS to coordinate aggregated DERs to deliver grid services, as well as facilitate evaluation to understand the performance of various DERs. Section 4.3.5 describes how the Company intends to evaluate these events to support key learning objectives and inform future efforts to maximize the value that DERs may deliver via the VPP.

As feasible, the Company may test additional grid services during the Pilot. In particular, the Company seeks to demonstrate and evaluate the ability to provide local peak reduction on specific circuits. As described in Section 4.3.2, the Company is designing the terms of participation in VPP programs to allow the Company the flexibility to test other grid services beyond system peak reduction. However, the ability to demonstrate and test additional services will be contingent upon the readiness of requisite capabilities of the DERMS and other technology systems. Regardless, following the initial Pilot period, the Company will continue to expand, demonstrate, and evaluate capabilities to provide a variety of grid services with the VPP.

In addition to demonstrating and evaluating the delivery of grid services with the VPP, the Company is also assessing the benefits and operational characteristics associated with a wide variety of potential grid services through its Value of DER study. The Company is doing a pilot study to value the grid services that could be provided by different types of DERs. The framework is being studied for the non-wires alternatives program to enable optimal dispatch of Company's NWA battery pilots. Lessons learned from this study will be extended to other types of DERs within the VPP.

FERC Order 2222 requires PJM to enable distributed energy resource aggregators to participate in electricity markets. The minimum size of a DER Aggregation can be as small as 100kW with the largest component DER being no greater than 5 MW. PJM has proposed going live with FERC Order 2222 in February 2028. The Company is working on designing and implementing its FERC Order 2222 program, while continuing to track updates from PJM on its implementation plans.

#### 4.3.5 LEARNING AND EVALUATION

This Pilot presents a significant opportunity to drive innovation by testing new programs and technologies with deliberate learning objectives in mind, thereby helping to inform future plans to enhance VPP programs, technologies, grid service performance, customer experience, and other outcomes. From the Pilot, the Company seeks to address the following learning objectives, which align with the Pilot objectives defined in Section 4.2.

- **Support technology development** –The Company seeks to demonstrate technology capabilities and integration to facilitate DER aggregation, as well as identify priorities for further technology development.
- **Optimize grid service performance** –The Company seeks to better understand how VPP resources perform in response to events, the drivers for variations in performance across customers, devices, and/or aggregators, and opportunities to enhance the magnitude and predictability of event response.
- **Enhance customer programs** –The Company seeks to assess the effectiveness of its programs in driving customer and aggregator participation, as well as to identify opportunities to enhance program design to increase customer enrollment, facilitate equitable access, and deliver greater performance.
- **Deliver grid and customer benefits** –The Company seeks to better understand drivers of value and cost-effectiveness to inform how programs may be optimized to deliver value to both participants and non-participants, including to help maintain affordability for all customers.

Figure 5 outlines specific questions that the Company plans to address through the Pilot and its evaluation. The table also summarizes key metrics and evaluation methods that may be used to address each question. Evaluation, measurement, and verification activities will be conducted primarily by an independent evaluation contractor in accordance with annual DSM evaluation and reporting timelines. Many of the associated evaluation activities will be conducted at an individual program level. The Company will then coordinate with its evaluation contractor to aggregate and synthesize findings across the portfolio of programs within the VPP.

**Figure 5. Evaluation Objectives, Metrics and Methods by Learning Objective**

EVALUATION OBJECTIVES	KEY METRICS	EVALUATION METHODS
<b>SUPPORT TECHNOLOGY DEVELOPMENT</b>		
Assess the effectiveness of technology in integrating and communicating with participating resources	# and type of resources integrated with the VPP  % of devices responding to event dispatch signals	Program-level impact evaluation  Interviews/surveys of program implementers and aggregators
<b>OPTIMIZE GRID SERVICE PERFORMANCE</b>		
Assess VPP Pilot load reduction performance	Total MW reduction by season	Program-level impact evaluation
Assess load reduction performance by resource	Average load reduction by resource type (kW/resource)  Opt-out rates (%)  % of responsive loads	Program-level impact evaluation
Assess load reduction performance by aggregator	Average aggregator performance factor  (% = kW delivered / kW committed)  Actual kW delivered	Program-level impact evaluation
Understand performance variation	Event performance metrics by event, aggregator, device, etc.  Event performance metrics over time including degradation of impacts relative to temperature or season	Program-level impact evaluation
<b>ENHANCE CUSTOMER PROGRAMS</b>		
Understand program participation drivers and barriers	Enrollment by program and aggregator  Enrollment as % of eligible customers/resources  IAQ customer enrollment levels	Program-level impact evaluation  Interviews/surveys with participants, non-participants, and aggregators



EVALUATION OBJECTIVES	KEY METRICS	EVALUATION METHODS
Assess customer program satisfaction	Attrition rates (%/yr)  Change rates (%/yr moving between VPP programs or aggregators)  Customer satisfaction and customer awareness	Program-level impact evaluation  Interviews/surveys with participants and aggregators
Understand program pain-points, inefficiencies and barriers	Call center metrics  Customer complaints  Customer satisfaction	Evaluation of call center and customer support data  Interviews/surveys with participants, aggregators and non-participants
<b>DELIVER GRID AND CUSTOMER BENEFITS</b>		
Assess program cost-effectiveness	Ex-post benefit cost analysis ("BCA") ratios by program <sup>13</sup>	Cost-benefit analysis  Value of DER Study <sup>14</sup>
Calculate GHG impacts <sup>15</sup>	Avoided CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	Program-level impact evaluation  Application of carbon and other GHG intensity factors
Customer reliability and resiliency	Number of customer interruptions avoided  Increased sense of security (self-report)	Program-level impact evaluation data  Participant surveys or interviews

<sup>13</sup> Because pilot programs are designed to build a foundation for future programs, the Company does not expect benefit cost ratios using standard tests (including the JST) to be greater than 1.0. The objective of a pilot is to learn how to deploy the most effective programs, the value of which is not captured as part of the BCA. Further, pilots often lack the scale needed to achieve cost effectiveness.

<sup>14</sup> The Value of DER Study is being conducted separately from DSM program evaluation activities.

<sup>15</sup> Note that evaluation of direct emissions impacts (e.g., due to reduced carbon intensity during off-peak vs. on-peak hours) may underestimate the impact of VPP programs on emissions. Indirect impacts (e.g., due to facilitation of greater adoption of clean energy and electrification technologies as a result of locational capacity management) may be significantly greater but are difficult to quantify.

#### **4.3.6 IMPLEMENTATION**

The Company will lead the overall implementation of the VPP pilot, overseeing program design, regulatory compliance, and stakeholder engagement. The Company will be integrating existing programs and new programs into the VPP framework, ensuring alignment with state legislation and PJM market requirements. The Company will also manage coordination across internal teams and external partners, while maintaining responsibility for customer program integration and long-term scalability.

Program implementation vendors will handle customer-facing delivery, including enrollment, performance-based program execution, and integration with Dominion Energy Virginia's systems such as DERMS. The DERMS platform will serve as the operational core, enabling real-time dispatch and grid visibility across distributed energy resources. Meanwhile, EM&V partners are tasked with tracking performance metrics, validating outcomes, and supporting regulatory reporting to ensure transparency and effectiveness of the Pilot.

Implementation vendors and EM&V partners will develop detailed implementation and evaluation plans, respectively. While many of the program design details are specified within DSM filings, detailed program design considerations (e.g., formal terms and conditions for participants) and program implementation plans (e.g., regarding marketing, enrollment, system integration, event dispatch, and settlement) are defined following approval of proposed DSM-XIV programs. The Company will coordinate with these partners to help ensure that VPP programs, both existing and new, are designed and executed in a manner that supports the objectives of the VPP Pilot. This includes incorporation of stakeholder input, including input outlined in the Stakeholder Feedback Report, as well as additional stakeholder input that may arise through subsequent stakeholder engagement activities.



## 5. Post-VPP Pilot and Strategies for Long-term Sustainability

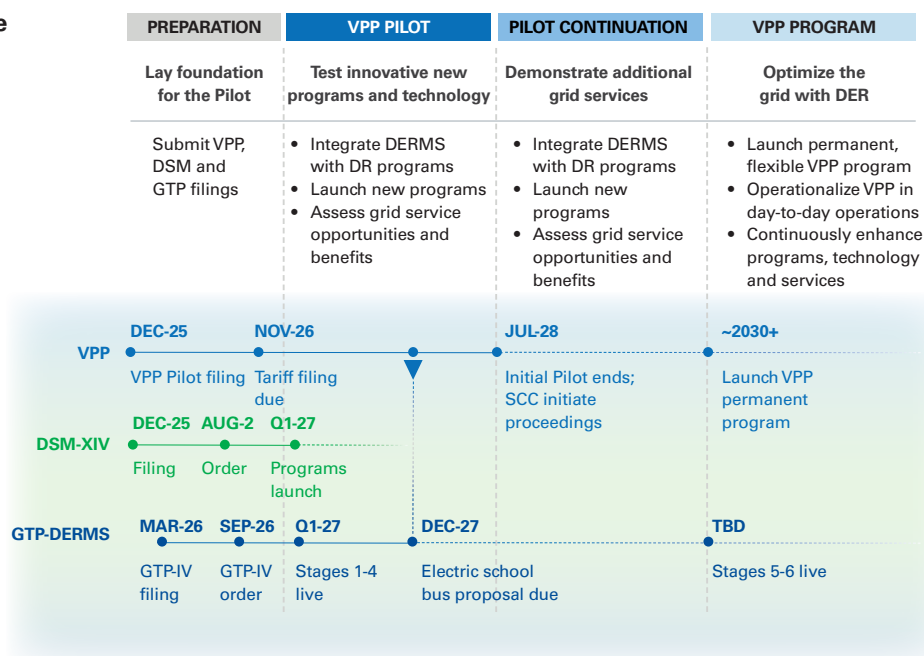
### 5.1 VPP Evolution

While Dominion Energy Virginia's investments to date in related DSM programs and DERMS technology are critical for enabling successful compliance with the requirements and constrained timeline laid out in the CEA, realization of the Company's vision for its VPP will take additional time following the initial Pilot period. In particular, some VPP capabilities are contingent upon DERMS development, as related functionality and integration are being deployed in stages over several years. Furthermore, insights from the VPP Pilot will help to shape the Company's longer term VPP plans.

#### Timeline

Figure 6 provides a summary of the timeline associated with the CEA, as well as related timelines for DSM and GT Plan proceedings. The VPP Pilot is set to end on July 1, 2028, while the Company expects that DSM-XIV programs that are part of the Pilot will launch around the first quarter of 2027, leaving approximately 18 months for the initial Pilot period. In between the end of the initial Pilot and the establishment of a permanent VPP program (estimated to launch in 2030 or later), the Company plans to continue expanding on Pilot efforts to grow enrolled DER capacity and demonstrate additional grid services. Approved DSM-XIV programs will run for four years through 2030, which should help to facilitate a timely and smooth transition to the permanent VPP program.

**Figure 6. VPP Timeline and Evolution**





## 5.2 Ongoing Evolution After the Pilot

Dominion Energy Virginia is committed to the development of an advanced VPP that operationalizes the use of DERs in day-to-day grid optimization to maintain reliability and affordability, delivers a streamlined experience for customers and aggregators to drive flexibility, DER capacity at scale, and provides a flexible framework to quickly adapt to grid, customer, and aggregator needs and opportunities over time. The following section describes how the Company plans to evolve its VPP beyond the pilot period, building the operational foundation to integrate emerging technologies, expand customer participation, and unlock new value streams across the grid. As DER adoption grows, the VPP will serve as a foundational platform for enabling even more reliable, affordable and increasingly clean energy that powers our customers every day.

### Pilot Continuation

After the Pilot, as required by the CEA, the Commission will initiate proceedings to evaluate the Pilot and establish a permanent VPP program.<sup>16</sup> The associated timeline for these proceedings is not specified in the CEA, but the Company anticipates that a permanent program will likely not be established until sometime in 2030 or later. In the interim, the Company plans to continue with a second phase of pilot activities, building upon the initial Pilot period to expand enrolled DER capacity, demonstrate new capabilities, and continue learning to inform development of a permanent VPP program. In particular, the Company plans to test and demonstrate the ability to provide additional grid services beyond system-wide peak reduction, including local peak reduction to manage circuit-level distribution capacity (thereby enabling deferral of distribution infrastructure upgrades), as well as facilitation of market services (e.g., associated with FERC Order 2222 and PJM markets).

### Long-term Strategies for VPP Program

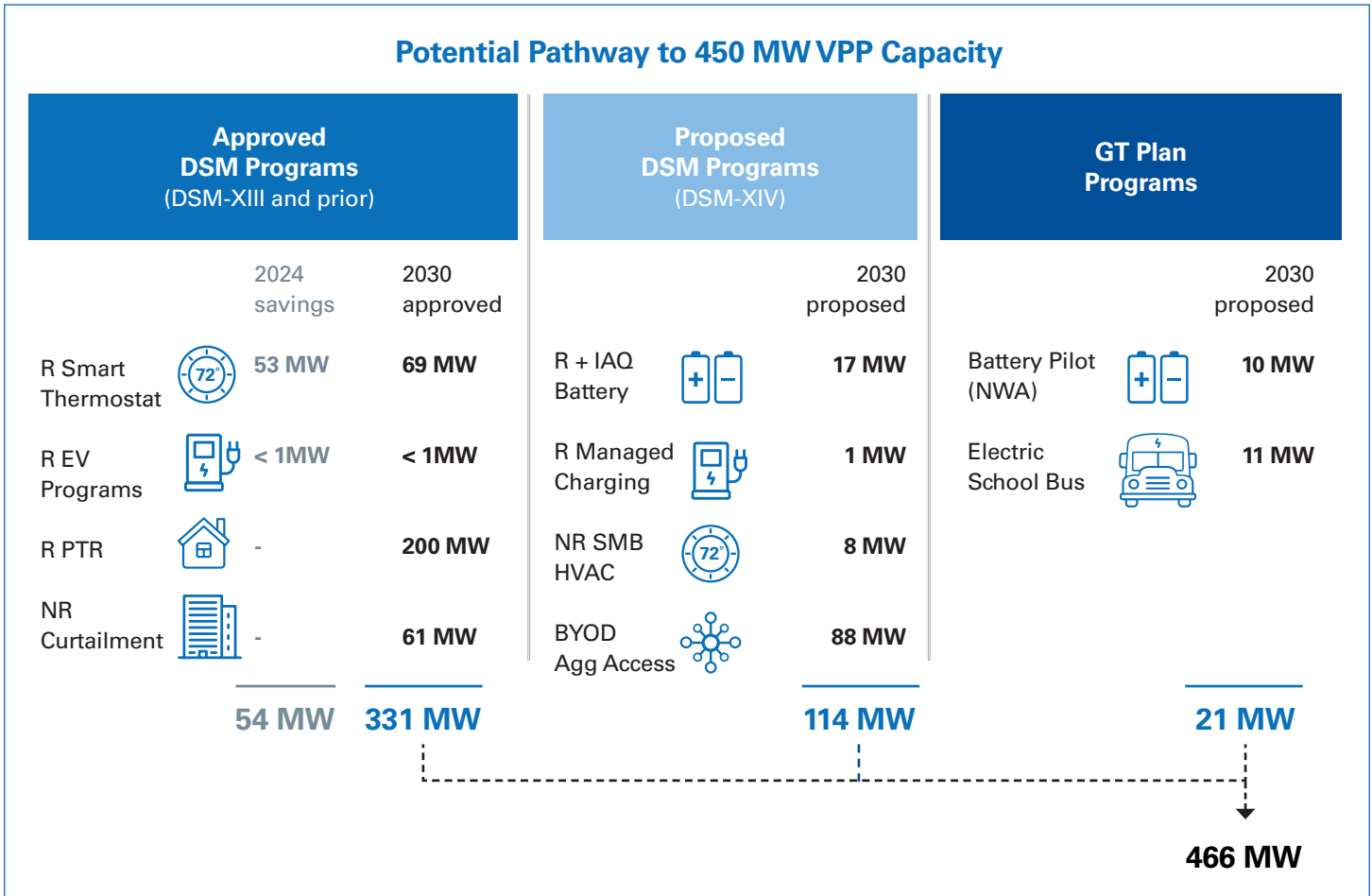
Over the long-term, the Company envisions the development of an advanced VPP that operationalizes the use of DERs in day-to-day grid optimization to maintain reliability and affordability, delivers a streamlined experience for customers and aggregators to drive flexible DER capacity at scale, and provides a flexible framework to quickly adapt to grid, customer, and aggregator needs and opportunities over time. Section 3 summarizes the Company's current vision for its future-state VPP, which will be refined as the Company learns from its experience during and following the Pilot.

As the CEA indicates that the VPP Pilot may include "up to 450 MW" of DER capacity, the Company has considered potential pathways for reaching or exceeding this capacity over time following the initial Pilot period. Figure 7 summarizes approved and proposed DER peak reduction capacity associated with proposed programs to be included within the VPP, including existing approved programs from DSM-XIII and prior, as well as DSM-XIV programs. The 2030 capacities by program represent approved or proposed planning targets established in coordination with the Company's various program implementation vendors. While some programs (e.g., Residential Smart Thermostat) have demonstrated successful performance to date, most programs have limited available data to indicate whether these planning targets are likely to be achieved. Regardless, the Company expects the DER capacity associated with the VPP to increase several-fold over its current amount (54 MW). Furthermore, insights from the Pilot will help to refine projected DER peak reduction capacities by program, as well as provide insights for how ongoing and future programs can be effectively scaled to deliver greater DER capacity over time.

---

<sup>16</sup> Va. Code § 56-585.1:16 E.

**Figure 7. Tentative VPP Capacity Growth Projections<sup>17</sup>**



The Company is committed to evolving its VPP strategy beyond the pilot period, with a long-term vision to lay the operational foundation to integrate emerging technologies, expand customer participation, and unlock new value streams across the grid. As DER adoption grows, our VPP will serve as a foundational platform for enabling even more reliable, affordable and increasingly clean energy.

<sup>17</sup> 2024 savings values are derived from the 2024 EM&V Report produced by DNV, the Company's independent evaluation contractor. 2030 proposed savings values are based upon planning targets developed in coordination with the Company's program implementers. Some programs, including proposed DSM-XIV programs, are subject to Commission approval.



## 6. Conclusion

The Community Energy Act creates an opportunity to drive meaningful innovation that can empower Virginians to help transform how the power grid operates. The Company proposes to implement an innovative VPP Pilot that will help to make significant progress toward the development of an advanced VPP that will deliver significant value to customers – enabling greater adoption of DERs while maintaining high reliability, helping to keep rates affordable by utilizing flexible DER capacity to reduce electricity supply and infrastructure costs, and providing programs that empower customers to better manage their power consumption. The Pilot will

leverage the intelligence of the Company's DERMS and integrate with both existing and new DSM programs to deliver grid services with flexible DER capacity. The BYOD Aggregator Access program will serve as a prototype for future programs that will help to deliver a variety of grid services at scale.

Beyond the Pilot period, the Company is committed to developing an industry-leading VPP that leverages DERs in daily grid operations to deliver reliable, affordable, and increasingly clean energy, and lessons learned from the Pilot will help to accelerate progress toward this vision.





## Appendix A. Definitions

See Table A-1 for definitions of acronyms and abbreviations and Table A-2 for definitions of key terms.

**Table A-1. Acronyms and Abbreviations**

ACRONYM OR ABBREVIATION	MEANING
BYOD	Bring your own device
CEA	Community Energy Act
Commission	Virginia State Corporation Commission
Company	Virginia Electric and Power Company, or Dominion Energy Virginia
DER(s)	Distributed energy resource(s)
DERMS	Distributed Energy Resource Management System
DEV	Dominion Energy Virginia
DR	Demand response
DSM	Demand side management
DSM-XIV	Demand Side Management Phase XIV
EV	Electric vehicle
FERC	Federal Energy Regulatory Commission
GRID-FLEXER	GRid Integration & Demonstration of FLEXible Energy Resources
GT Plan	Grid Transformation Plan
OT	Operations technology
Pilot	VPP pilot program associated with the CEA
V2G	Vehicle-to-grid
VPP	Virtual power plant

**Table A 2. Definition of Key Terms**

TERM	DEFINITION <sup>18</sup>
<b>Aggregator</b>	“[A]n individual or entity, other than the electric utility, that enrolls customers in the pilot program and coordinates the operation of enrolled energy resources. An aggregator shall not be considered an electric utility by virtue of participating in the pilot program but shall be given nondiscriminatory access to necessary customer and grid data from the utility to participate in the pilot program.”
<b>Distributed Energy Resource (DER)</b>	“[A] resource of up to five megawatts that is located on the customer's premises or is interconnected with the distribution system and produces or stores electricity or modifies the timing or amount of a customer's electricity consumption”
<b>Grid Event (or “event”)</b>	“[A] grid condition for which the electric utility schedules or remotely dispatches enrolled devices to respond”
<b>Grid Service</b>	“[A] capacity, energy, or ancillary service that supports grid operations”
<b>Virtual Power Plant (VPP)</b>	“[A]n aggregation of distributed energy resources, enrolled either directly with an electric utility or indirectly through an aggregator, that are operated in coordination to provide one or more grid services”

<sup>18</sup> Definitions are taken directly from the Community Energy Act, Va. Code § 56-585.1:16 A.

## Appendix B. Compliance with Community Energy Act Requirements

Table B-3 summarizes key legislative requirements and how the Company's VPP Pilot addresses these requirements.

**Table B-3. Compliance with Community Energy Act Requirements**

TOPIC	LEGISLATIVE REQUIREMENTS	COMPLIANCE APPROACH
<b>VPP PILOT</b>	<p>No later than December 1, 2025, each phase II utility shall petition the state corporation commission (the commission) for approval to conduct a pilot program to evaluate methods to optimize demand through various technology applications including the establishment of virtual power plants.</p> <p>Each pilot program shall conclude its initial phase by July 1, 2028.</p>	See Section 4
<b>GRID SERVICES</b>	Shall evaluate electric grid capacity needs and the ability of such virtual power plants to provide grid services, including peak-shaving, during times of peak electric demand.	See Sections 4.3.4 and 4.3.5
<b>SCALE</b>	Consist of aggregations of distributed energy resources totaling up to 450 megawatts for a phase II utility.	See Section 5.2
<b>GEOGRAPHY</b>	Include distributed energy resources located in multiple geographic regions of the commonwealth.	Customers across the Company's service territory are eligible to participate.
<b>PROGRAMS</b>	<p>May utilize any existing or proposed distributed energy programs as part of the pilot program.</p> <p>Propose programs of at least 15 megawatts incentivizing residential customers to purchase battery storage device.</p> <p>Propose a broader electric school bus program as part of a grid transformation filing no later than December 31, 2027.</p>	See Section 4.3.3
<b>FUNDING OPPORTUNITIES</b>	Demonstrate that the utility has evaluated funding opportunities from the U.S. Department of Energy.	The Company has and will continue to pursue DOE funding opportunities, including for the GRID-FLEXER pilot, which leverages the DERMS for DER aggregation.

<sup>19</sup> Legislative requirement language is taken directly from the Community Energy Act.



TOPIC	LEGISLATIVE REQUIREMENTS	COMPLIANCE APPROACH
<b>DESIGN AND EVALUATION</b>	<p>The electric utility shall evaluate methods to holistically optimize demand, including:</p> <ul style="list-style-type: none"> <li>• Review of reasonable enrollment and performance incentives for participating customers;</li> <li>• Potential incentives for the purchase of a battery storage device, including increased incentives for customers in historically economically disadvantaged communities;</li> <li>• Operational parameters for grid services...; and</li> <li>• Reasonable mechanisms to disenroll customers for nonperformance</li> </ul>	<p>These considerations were incorporated into the design of proposed DSM-XIV programs, which are described in the Company's DSM-XIV filing.</p> <p>See Section 4.3.3 regarding proposed programs.</p> <p>See Section 4.3.4 regarding analysis of grid services.</p> <p>See Section 4.3.5 regarding learning objectives and evaluation methods.</p>
<b>STAKEHOLDER ENGAGEMENT</b>	<p>Stakeholder process to receive feedback on program design</p>	<p>See Appendix D and Company Witness Courtney S. Young Schedule 2</p>
<b>"VARIATION OF A TARIFF"</b>	<p>No later than November 15, 2026...petition the Commission for a program tariff or variations of a tariff structure through which residential and commercial and industrial customers may enroll, either directly or through an aggregator.</p> <p>Program tariff that is designed to:</p> <ol style="list-style-type: none"> <li>Allow customers...to enroll their eligible technologies in the pilot program;</li> <li>Provide a mechanism to incorporate existing programs...into such tariff;</li> <li>Specify compensable grid services for each eligible technology, including peak demand reduction, voltage support, and emergency services; and</li> <li>Specify pay-for-performance compensation mechanisms for such grid services.</li> </ol>	<p>See Section 4.3.2 and Appendix C</p>

## Appendix C. Virtual Power Plant Customer Participation Tariff

### I. PURPOSE & AVAILABILITY

In accordance with the Community Energy Act, the Company is required to petition the Commission for a “program tariff or variations of a tariff structure” by November 15, 2026. Dominion Energy Virginia proposes a customer participation tariff to support the implementation of programs included within the Company’s Virtual Power Plant. As outlined in Section 4.3.2, this proposed tariff structure satisfies the requirements of the CEA by enabling customer enrollment and cost recovery mechanisms aligned with the Act’s objectives:

- Allow customers to enroll their eligible technologies in the VPP Pilot,
- Incorporate existing programs,
- Compensate participants for providing grid services, including through pay-for-performance mechanisms, and
- Provide a mechanism for customers to enroll directly or through a participating aggregator.

The Virtual Power Plant (VPP) Customer Participation Tariff outlines a flexible and sustainable framework for enabling customer engagement in the Company’s VPP initiative. Customers may participate through a variety of programmatic offerings, each designed to support different types of distributed energy resources, aggregators, and customer segments. These offerings may include distinct incentive structures to encourage meaningful participation and maximize grid service value. This structure supports seamless transitions from the initial VPP pilot phase to a permanent program, maintaining operational flexibility and financial stability while empowering customers to contribute to grid reliability and decarbonization goals.

### II. PROPOSED VPP PROGRAMS

The following programs are proposed to be included within the VPP Customer Participation Tariff.

#### Existing programs (approved programs from DSM-XIII and prior)

- Residential SmartThermostat Reward
- Residential EV Peak Shaving
- Residential PeakTime Rebate
- Non-Residential Curtailment

#### New programs (proposed programs for DSM-XIV)<sup>20</sup>

- Residential Battery Storage Pilot (DR/VPP)
- Residential Managed Charging Pilot (DR/VPP)
- Residential Managed Charging Pilot TOU (DR/VPP)
- Residential Income and Age Qualifying Battery Storage Purchase Pilot (VPP)
- Residential Income and Age Qualifying Battery Storage Pilot (DR/VPP)
- Non-residential HVAC for Small and Medium Sized Business Customers Program (DR/VPP)
- Bring your Own Device (BYOD) Aggregator Access Pilot (VPP):
  - » Residential Bring your Own Device (BYOD) Aggregator Access
  - » Commercial Bring your Own Device (BYOD) Aggregator Access
  - » Industrial Bring your Own Device (BYOD) Aggregator Access
  - » Vendor Managed Bring your Own Device (BYOD) Aggregator Access

This portfolio of programs meets each of the requirements specified above by (1) allowing customers to enroll a wide variety of DER in the pilot through programs focused on measures and a device-agnostic BYOD program, (2) incorporating both existing and new programs, (3) providing compensation, including pay-for-performance incentives in the BYOD program, for responding to events that deliver various grid services, and (4) allowing for multiple enrollment pathways, both directly and via participating aggregators. Each program also provides a mechanism for participants to unenroll from the program.

---

<sup>20</sup> New programs are proposed in the Company’s DSM-XIV filing and are subject to Commission approval.

### III. PROGRAM ELIGIBILITY AND INCENTIVES

Eligibility requirements and incentives are summarized below for each program proposed for inclusion within the VPP. Additional details regarding each program, including eligibility and incentives, are available within the respective DSM filing for each program.

#### 1. **Residential Smart Thermostat Reward Program (Demand Response) (DSM XIII)**

The program is a peak demand response program through which demand response is called by the Company during times of peak system demand throughout the year and thermostats of participating customers would be gradually adjusted to achieve a specified amount of load reduction while maintaining reasonable customer comfort and allowing customers to opt-out of specific events if they choose to do so. Participating customers receive an annual incentive for participating in a specified set of DR events.

*Eligible measures:* Program-approved smart thermostats that are Wi-Fi enabled and capable of participating in demand response events.

*Eligible customers:* Residential customers who are served under a residential rate schedule.

*Incentives:* One-time incentive payment of \$25 and an annual incentive of \$25 for participating in the DR events.

*Cost recovery:* DSM Rider C1A

#### 2. **Residential Electric Vehicle Charger Rewards Program (Demand Response) (DSM VIII)**

Provides incentives for customers who have a Level 2 charger with the opportunity to participate in demand response events during times of peak system demand. The program provides customers with the opportunity to reduce the electric vehicle charging load during demand response events when called by the Company to do so.

*Eligible measures:* Level 2 Electric Vehicle Charger.

*Eligible customers:* Residential customers who are served under a residential rate schedule.

*Incentive:* \$40 annual incentive for participation in DR events.

*Cost recovery:* DSM Rider C1A

#### 3. **Residential Peak Time Rebate Program (Demand Response) (DSM XII)**

Program enables residential customers to reduce their energy consumption during peak time periods as called upon by the Company. During peak time rebate event days, enrolled customers receive alerts via text messaging, emails or outbound telemarketing voicemail, and the Company's website to inform them of the event. The post-event communications will include the following:

- Text messaging acknowledging the customer's participation, with a statement of savings
- Ongoing behavioral messaging and nudges, reinforcing the behavioral model
- On-going maintenance messaging using bill inserts and bill messaging post education campaign

*Eligible measure:* Behavioral changes in consumption.

*Eligible customers:* All customers who are on a residential rate schedule, have an AMI meter, and are not otherwise enrolled in one of the Company's demand response programs.

*Incentive:* Up to \$28 per customer in annual savings for a customer who participates in 10 events.

*Cost recovery:* DSM Rider C1A

**4. Non-Residential Curtailment Program (Demand Response) (DSM XIII)**

The program provides non-residential customers with the opportunity to curtail their energy usage using manual load curtailment as well as automated demand response during peak system demand. Each participating customer (facility) will have a load reduction plan ("LRP") developed which is specific to the facility and guided by engineering assessments. The LRP is specific to each customer site and provides a specific plan on how the customer is to reduce their electric demand during a demand response event, detailing the measures (equipment) the customer can turn off or turn down during the DR event window.

*Eligible measures:* Automated Demand Response; Manual Demand Response.

*Eligible customers:* Program is available to non-residential customers who have not opted out of paying the rider and qualifying customers who are currently not enrolled in Schedule 10.

*Incentive:* Average Annual Incentive of \$26,250.

*Cost recovery:* DSM Rider C1A

**5. Bring your Own Device (BYOD) Aggregator Access Pilot (DSM XIV)**

The proposed BYOD Aggregator Access Pilot is designed to advance the Company's strategic goals for grid reliability, customer engagement, and integration of distributed energy resources. The pilot provides qualified aggregators the opportunity to enroll residential, commercial and industrial customers with eligible DER technologies which will include EV Chargers, Smart Thermostats, and water heaters across the Company's diverse customer segments, including residential, commercial and industrial customers.

*Eligible measures:* Bring Your Own Device

*Eligible customers:* Pilot would be available to residential, commercial, or industrial customers in the Company's Virginia service territory.

*Incentive:* Varies across the Residential, Commercial, Industrial and Vendor Managed customer segments.

*Cost recovery:* DSM Rider C1A

**6. Residential Battery Storage Pilot (Demand Response) (DSM XIV)**

Pilot would provide an incentive for residential customers to discharge their home battery storage system when called upon during peak electrical demand, along with other times that may provide services to the grid.

*Eligible measures:* Residential Battery Energy Storage System

*Eligible customers:* The pilot would be available to residential customers in the Company's Virginia service territory who are on a residential rate schedule and who already have a qualifying battery storage system.

*Incentive:* One-time enrollment incentive payment \$1,000; annual incentive payment thereafter of \$294.

*Cost recovery:* DSM Rider C1A

**7. Residential Income- and Age Qualifying (IAQ) Battery Storage Purchase Pilot (DSM XIV)**

Pilot provides IAQ residential customers with a no cost battery energy storage system installation by a qualified battery storage installer. The pilot will target IAQ customers who have previously participated in the Company's DSM Phase IX House Bill 2789 Solar Pilot, who had photovoltaic solar panels installed at their residence. Customers are required to participate in the corresponding DR program.



*Eligible measures:* 13.5 kWh Tesla Powerwall 3 Energy Storage Battery System

*Eligible customers:* Any household whose annual income does not exceed 80% of the local area median income as set forth by Virginia Housing or 60% of the state median income as determined by Virginia Department of Housing and Community Development, whichever is greater. It is also available to customers who are 60 years or older with a household income of 120% of the state median income.

*Incentive:* Installation of free battery energy storage system valued at \$20,000 per IAQ customer.

*Cost recovery:* DSM Rider C1A

**8. Residential Income and Age Qualifying (IAQ) Battery Storage Pilot Demand Response (DSM XIV)**

The IAQ DR pilot provides the opportunity for qualifying IAQ residential to discharge their home battery storage system when called upon during peak electrical demand, along with other times that may provide services to the grid. Qualifying IAQ residential customers who receive a no cost installation of the battery storage system must also participate in all demand response and other grid events as part of this proposed pilot.

*Eligible measure:* 13.5 kWh Tesla Powerwall 3 Energy Storage Battery System

*Eligible customers:* Any household whose annual income does not exceed 80% of the local area median income as set forth by Virginia Housing or 60% of the state median income as determined by Virginia Department of Housing and Community Development, whichever is greater. It is also available to customers who are 60 years or older with a household income of 120% of the state median income.

*Incentive:* Average incentive payment of \$183.

*Cost recovery:* DSM Rider C1A

**9. Residential Managed Charging Pilot for TOU rate and non-TOU rate customers (DSM XIV)**

Proposed pilots to offer qualifying residential customers on TOU and non-TOU rate schedules who have an electric vehicle with year-round opportunity to participate in a managed charging strategy that reduces load during peak system demand. The pilots will provide qualifying residential customers who have an electric vehicle with the option to participate in demand flexibility electric vehicle charging strategy that minimizes charging load during times of peak system demand. The pilots would be available throughout the year and would support the Company's continued demand growth while providing a managed charging option for qualifying customers.

*Eligible measure:* Electric Vehicle Charger

*Eligible customers:* All residential customers on a TOU rate schedule or non-TOU rate schedule who have a qualifying Level 1 or Level 2 charger as well as telematics-compatible vehicle charging are eligible.

*Incentive:* Residential customers will receive a \$40 enrollment incentive and \$10 monthly incentive if they participate in a set number of events when called upon to participate. Residential customers on a TOU rate will receive a \$20 enrollment incentive and \$5 monthly incentive if they participate in a set number of events when called upon to participate.

*Cost recovery:* DSM Rider C1A

10. **Non-Residential HVAC for Small- to Medium Sized Business Customers (Demand Response (DSM XIV))**

This is a peak demand response program through which DR events are called by the Company during times of peak system. Thermostats of participating SMB customers would be adjusted to achieve a specified amount of load reduction while maintaining reasonable facility comfort through a gradual change in business temperature and allowing customers to opt out of specific events if they choose to do so. The program will be available year-round with the summer peak raise setpoint of 3-5 degrees during a summer DR event.

*Eligible measure:* SmartThermostat

*Eligible customer:* The Program would be available to non-residential customers who have not opted out of paying the DSM Rider and who do not exceed the 400-kW demand threshold.

*Incentive:* One-time enrollment incentive \$75; annual incentive \$40.

*Cost recovery:* DSM Rider C1A

## Appendix D. Stakeholder Feedback

Dominion Energy Virginia has solicited stakeholder input to help inform its VPP plans via an online stakeholder feedback portal. The portal was open to the public, and the Company reached out to prospective aggregators, trade allies, customer advocates, regional organizations, and others to help inform the development of an innovative VPP Pilot that will test new types of program structures to drive greater participation, support a wider variety of grid services, and deliver greater value to the grid, the Company's customers, market partners, and the communities we serve.

Furthermore, the Company will continue to engage customers, aggregators, and other stakeholders during and following the VPP Pilot to help achieve learning objectives, understand what works effectively and what could be improved, and refine its proposed VPP plans following the Pilot.

Please refer to the Stakeholder Report, Schedule 2 to the direct testimony of Courtney S. Young, that provides an analysis of stakeholder feedback.