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SENATE BILL NO. 1100

AMENDMENT IN THE NATURE OF A SUBSTITUTE
(Proposed by the Senate Committee on Commerce and Labor
on January 27, 2025)

(Patron Prior to Substitute—Senator Hashmi)

A *BILL to direct certain electric utilities to petition the State Corporation Commission for approval to conduct a virtual power plant pilot program.*

Be it enacted by the General Assembly of Virginia:

1. § 1. That no later than December 1, 2025, each electric 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. Such pilot program 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. Such pilot program shall consist of aggregations of distributed energy resources totaling up to 450 megawatts for a Phase II Utility, and shall include distributed energy resources located in multiple geographic regions of the Commonwealth. An electric utility may utilize any existing or proposed distributed energy programs as part of the pilot program and to further the development of virtual power plants in the Commonwealth. An electric utility that petitions the Commission for such pilot program shall demonstrate that the utility has evaluated funding opportunities from the U.S. Department of Energy. In furthering the goals of such pilot program, each electric utility shall (i) propose programs of at least 15 megawatts incentivizing residential customers to purchase battery storage devices and (ii) notwithstanding the provisions of § 56-585.1:13 of the Code of Virginia, propose a broader electric school bus program as part of a grid transformation filing no later than December 31, 2027, and the Commission may require competitive solicitation open to utility-owned and non-utility-owned resources.

In conducting such pilot program, each electric utility shall evaluate methods to holistically optimize demand, including: a stakeholder process to receive feedback on program design; a review of reasonable enrollment and performance incentives for participating customers; potential incentives for the purchase of a battery storage device, including increased incentives for customers in historically economically disadvantaged communities; operational parameters for grid services, including the annual maximum number of grid events, the maximum duration of such grid events, and conditions under which a participating customer may opt out of a grid event; reasonable mechanisms to disenroll customers for nonperformance; and preliminary development of a program tariff that is designed to (a) allow customers with battery storage, non-battery storage, smart thermostat, or managed electric vehicle charging technologies to enroll their eligible technologies in the pilot program; (b) provide a mechanism to incorporate existing programs, including smart thermostat demand response, electric vehicle charging programs, and battery storage programs, into such tariff; (c) specify compensable grid services for each eligible technology, including peak demand reduction, voltage support, and emergency services; and (d) specify pay-for-performance compensation mechanisms for such grid services.

No later than November 15, 2026, each electric utility shall 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.

Each pilot program shall conclude its initial phase by July 1, 2028, at which time the Commission shall undertake a review of the data and results of the pilot programs and shall evaluate the effectiveness of the pilot programs in providing grid services during times of peak demand. In addition, the Commission shall consider lessons learned from the programs in relation to implementation of Federal Energy Regulatory Commission Order No. 2222 by PJM Interconnection and the complementary role of virtual power plants in the retail electricity market in the Commonwealth. As part of its evaluation, the Commission shall initiate a proceeding to establish a permanent program for each electric utility, which shall include procurement targets applicable to the electric utility for each such permanent program with corresponding performance metrics associated with either achievement of such targets or failure to achieve such targets.

As used in this act:

"Aggregator" means an individual or entity, other than the electric utility, its affiliates, or entities with preexisting contractual relationships with utility affiliates, 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.

"Distributed energy resource" means an electrical generating 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.

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60 *"Electric utility" means a Phase II Utility.*

61 *"Eligible technology" means a distributed energy resource that meets the requirements for participation*
62 *in the pilot program and does not emit carbon dioxide as a byproduct of combusting fuel or manufacturing*
63 *fuel for combustion to generate electricity.*

64 *"Grid event" means a grid condition for which the electric utility schedules or remotely dispatches*
65 *enrolled devices to respond.*

66 *"Grid service" means a capacity, energy, or ancillary service that supports grid operations.*

67 *"Historically economically disadvantaged community" has the same meaning as provided in § 56-576 of*
68 *the Code of Virginia.*

69 *"Phase II Utility" has the same meaning as provided in subdivision A 1 of § 56-585.1 of the Code of*
70 *Virginia.*

71 *"Virtual power plant" means an aggregation of distributed energy resources, enrolled either directly with*
72 *an electric utility or indirectly through an aggregator, that are operated in coordination to provide one or*
73 *more grid services.*