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*Petition of Virginia Distributed Solar Alliance for Injunctive Relief against
Virginia Electric and Power Company*
Case No. PUR-2023-00097

Dear Mr. Logan:

Enclosed please find for electronic filing in the above-captioned proceeding, *the Response of Virginia Electric and Power Company*.

Please do not hesitate to contact me if you have any questions regarding this filing.

Highest regards,

/s/ Jontille D. Ray

Jontille D. Ray

enc.

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COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

PETITION OF)
)
VIRGINIA DISTRIBUTED SOLAR ALLIANCE) Case No. PUR-2023-00097
)
For injunctive relief against)
Virginia Electric and Power Company)

RESPONSE OF
VIRGINIA ELECTRIC AND POWER COMPANY

Pursuant to Ordering Paragraph (5) of the Order issued by the State Corporation Commission (“Commission”) on June 7, 2023, in the above-captioned proceeding, and Rule 100 C of the Commission’s Rules of Practice and Procedure, 5 VAC-20-100 C, Virginia Electric and Power Company (“Dominion Energy Virginia” or the “Company”), by counsel, hereby submits its Response to the Complaint and Petition for Injunctive Relief and Request for Expedited Action (“Petition”) filed with the Commission by the Virginia Distributed Solar Alliance (“VA-DSA” or “Petitioner”).

STATEMENT OF THE ACTION

Through its Petition, VA-DSA seeks an injunction from the Commission directing the Company to suspend the Interconnection Parameters for Net Metering Distributed Energy Resources (“DER”), issued by the Company on December 20, 2022 (“Interconnection Parameters”) and to suspend recently adopted interconnection practices for certain projects. The “recently adopted interconnection practice” referred to by VA-DSA includes requiring Net Metering customers to sign a Small Generator Interconnection Agreement.¹ VA-DSA also requests that the Commission suspend the Company’s use of the “Light Load to Cumulative

¹ Petition at 3.

Generation Capacity” screen to justify direct transfer trip (“DTT”), dark fiber, and additional transformer, substation, and transmission upgrades....”²

The facts do not support VA-DSA’s requested relief. The Company has the responsibility to manage, maintain, and operate its grid safely and reliably. In developing and implementing the Interconnection Parameters as well as the other interconnection practices referenced in the Petition, the Company is fulfilling this responsibility. In particular, the Company’s development and implementation of the Interconnection Parameters comply with applicable law and regulations. Likewise, execution of the Small Generator Interconnection Agreement (“SGIA”) by Net Metering customers is authorized by the Company’s Commission-approved Terms and Conditions and the Commission regulations. The Company’s use of the “Light Load to Cumulative Generation Capacity” screen for determining the need for DTT is permitted by the Net Metering Regulations and is consistent with Good Utility Practice.³ Moreover, VA-DSA’s request for injunctive relief should be denied because it does not satisfy the legal standard for granting an injunction. The Company therefore respectfully requests that the Commission deny VA-DSA’s requested relief and dismiss the Petition in its entirety.

Should the Commission disagree, the Company respectfully requests that the Commission direct that VA-DSA’s concerns be addressed in the Rulemaking Proceeding established by the Commission in Case No. PUR-2023-00069, as the complained of actions taken by the Company are necessary to ensure the safe interconnection of Net Metering DERs onto the Company’s grid.

² *Id.* at 22.

³ 20 VAC-314-20.

RESPONDENT

Dominion Energy Virginia is a public service corporation organized under the laws of the Commonwealth of Virginia furnishing electric service to the public within its certificated service territory. The Company also supplies electric service to non-jurisdictional customers in Virginia and to the public in portions of North Carolina. The Company is engaged in the business of generating, transmitting, distributing, and selling electric power and energy to the public for compensation. The Company is a public utility under the Federal Power Act, and certain of its operations are subject to the jurisdiction of the Federal Energy Regulatory Commission. The Company is an operating subsidiary of Dominion Energy, Inc.

The Company's name and post office address are:

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BACKGROUND

Net energy metering programs afford eligible customers the opportunity to install and operate renewable energy generation systems to offset all or part of a customer's electricity requirements with the energy generated from renewable resources.

In 2020, the Virginia General Assembly expanded and revised its net energy metering programs to incentivize and increase the penetration of Net Metering Distributed Energy Resources ("DER") throughout Virginia, most notably under the Virginia Clean Economy Act ("VCEA") (2020 Va. Acts 1193). Specifically, under Va. Code § 56-594, Net Metering DER programs were significantly expanded to increase the scope of customer eligibility. Eligible non-residential customers may now construct generation facilities which produce up to 3 MW of generation. In addition, customers who desire to interconnect to the Company's Electric Power System ("EPS") may now produce up to 150% of the customer's expected annual energy consumption.⁴ Moreover, the VCEA also raised the net metering cap from 1% of each electric distribution company's adjusted Virginia peak-load forecast for the previous year to 6% (with 5% available to all customers and 1% reserved for low-income customers).⁵

As a result of these changes, the Company has experienced significant increases in customer applications to participate in Net Metering DER programs. Since the enactment of the VCEA, the Company has expanded its Net Metering DER programs to approximately 300 MW of generation across its service territory. The Company projects that these applications will only increase in volume over the next five years.

⁴ Va. Code § 56-594 B.

⁵ Va. Code § 56-594 E.

Figure 1: DER Growth in Dominion Energy Virginia Service Territory

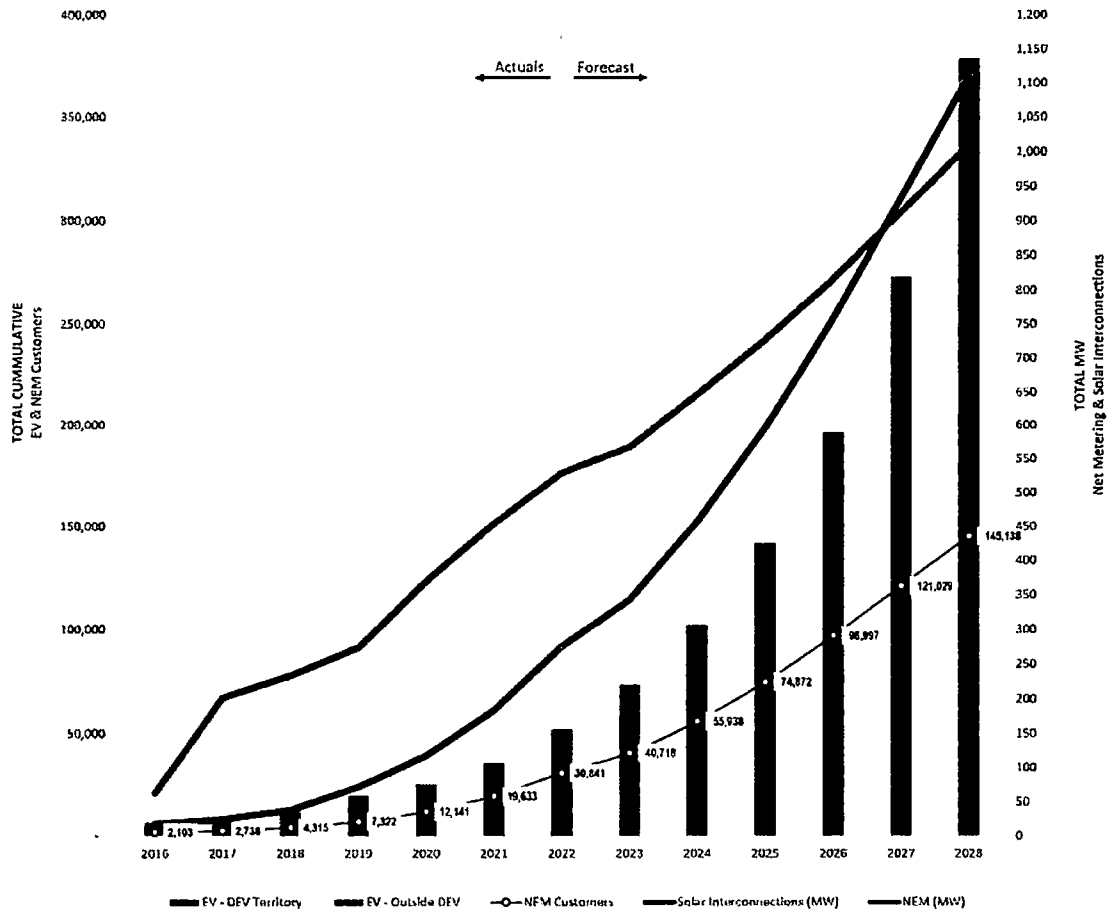


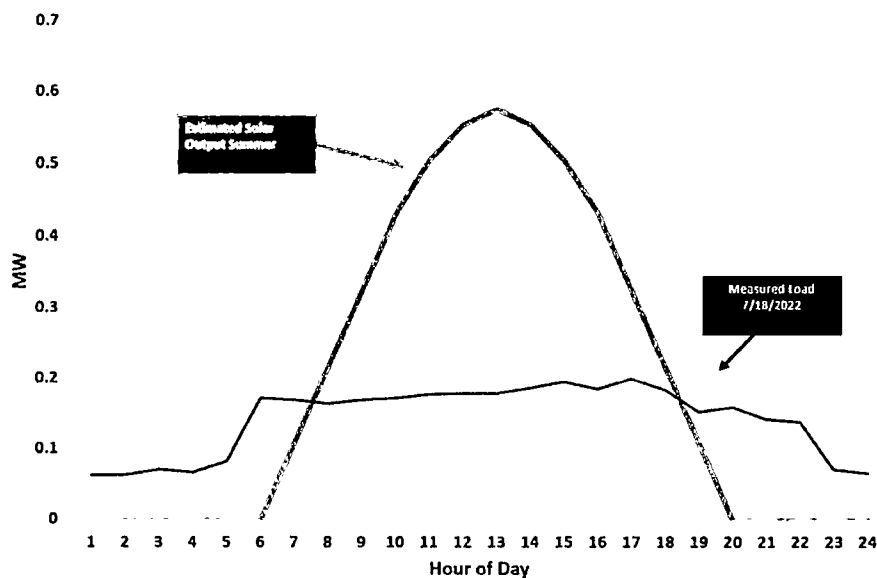
Figure 1 shows the actual growth in DERs between 2016 and 2022, as well as the forecasted growth in DERs for the next five years. More Net Metering generation, with higher capacity ratings, are now rapidly developing and penetrating the Company’s EPS.

Around the time of the enactment of the VCEA, the Commission finalized revisions to the rules governing interconnection of distributed resources (Chapter 314 and Chapter 315)⁶ for Virginia utilities. In response to the Chapter 315 changes, the Company began diligently

⁶ 20 VAC 5-314 and 20 VAC 5-315, respectively.

examining the impact of higher capacity Net Metering DERs that will operate in parallel with the EPS to ensure the safety, reliability, and operability of the Company's system. The Company noted that during light load conditions, the majority of the power produced by the Net Metering DER is injected back on to the EPS. The Company also noted the magnitude of these injections back onto the EPS is directly proportional with the Net Metering DER solar array sizes. A visual representation of a light load study for a 720 kW Net Metering DER is provided below as Figure 2. This study plots an estimated output of the DER against actual metered data for the interconnection site during light load conditions and clearly demonstrates the direct injection back onto the EPS.

Figure 2: Visual Representation of Light Load Study



As a result of the Company's understanding of the impact larger Net Metering installations can have on the system, the Company developed Interconnection Parameters for Net Metering Distributed Energy Resources ("Interconnection Parameters") to document the need for more formal engineering analyses and specify standardized equipment for Net Metering

interconnections. The Interconnection Parameters were published on December 20, 2022.⁷ Notably, on November 21, 2022, the Company met with Commission Staff (“Staff”) to introduce the Interconnection Parameters and explain their development prior to publication. The Interconnection Parameters are based on industry standards, the North Carolina Utilities Commission (“NCUC”) Interconnection Rules and Procedures associated with Net Metering, and the Commission’s Regulations Governing Interconnection of Net Metering DERs.⁸

Pursuant to the Interconnection Parameters, any Net Metering DER that will operate in parallel with the Company’s EPS is required to meet applicable standards for interconnection to ensure that the DER can safely and reliably operate and interconnect to the EPS.⁹ DERs are analyzed based on several factors, to include, among others, “the impact of DER on transformer and circuit loading and/or capacity, on conductor thermal rating, on voltage profile or power quality, [and] on protective coordination ...”¹⁰

To safely accommodate Net Metering interconnections, the Company’s Interconnection Parameters primarily address three different categories of Net Metering DERs and the associated study processes the Company developed. The different categories were designed by the Company to classify Net Metering interconnections based on a particular system’s size and potential impact to the system, customers, employees, and general public during fault conditions. The different categories were also designed to balance not placing an undue burden on traditional smaller Net Metering interconnections where the Company’s engineering staff is confident that an adequate margin exists to relax interconnection requirements. The Interconnection

⁷ Dominion Energy Virginia / North Carolina Interconnection Parameters for Net Metering Distributed Energy Resources, December 20, 2022 (the “Interconnection Parameters”).

⁸ Interconnection Parameters at 6.

⁹ Interconnection Parameters at 8.

¹⁰ Interconnection Parameters at 8.

Parameters provide a detailed description of the Net Metering DER Interconnection Study (Review) Processes (“Study Processes”) for three categories of generation:

- Category 1: Net Metering DERs producing less than 250 kW
- Category 2: Net Metering DERs producing greater than or equal to 250 kW but less than 1 MW
- Category 3: Net Metering DERs producing between 1 MW and 3 MW

The Study Processes for each level of Net Metering DER differ based on several factors, but most importantly, capacity of the generation facility. Where the Net Metering DER has a higher capacity, it is likely that the Net Metering DER will flow a greater supply of power back onto the Company’s EPS during light load conditions and ultimately have a larger impact to the system infrastructure. As a result, the Company must ensure that the appropriate safety measures are established to maintain the safe operation of these interconnections and the EPS.

Categories 2 and 3 represent less than 1% of all Net Metering interconnection requests. In fact, Categories 2 and 3 represented 0.19% of 10,000 requests in 2021, 0.26% of 14,000 requests in 2022, and 0.95% of 4,100 requests thus far in 2023 of all Net Metering interconnection requests. Although higher standards have been established for larger Net Metering DER facilities, these standards affect less than 1% of all Net Metering interconnections and are essential to ensure the facilities are able to operate continuously during normal conditions and to be promptly removed from service during fault conditions to ensure safety to the public and to maintain reliability of the system.

Net Metering DERs greater than or equal to 250kW in size require review and evaluation by three different technical teams, the System Protection Engineering Team, the DER Integration and Strategy Team, and the Substation Engineering Team, to ensure that the infrastructure associated with interconnection can absorb the facility’s increased capacity. Recognizing that this process can cause delays in the interconnection review process, the Company has added

personnel focused solely on this evaluative approval process. Historically, Net Metering projects required minimal engineering resources due to the smaller sizes of the Net Metering solar arrays. At the inception of distributed generation seeking to connect to the Company's EPS, the Company's System Protection Engineering Team was able to handle these responsibilities with existing resources. In 2016, three engineer positions were dedicated to focus specifically on utility-scale DER and Net Metering projects. Last year, a stand-alone System Protection Engineering Team was created, consisting of one supervisor and eight engineers, to focus solely on DER generation interconnections (utility-scale and Net Metering) to the Company's grid. Currently, all members of the System Protection Engineering Team perform Net Metering interconnection studies.

In the fourth quarter of 2021, the Company started receiving significantly larger non-residential Net Metering interconnection requests, which resulted from the non-residential individual system cap increase from 1MW to 3MW that became effective in the Summer of 2020. Dominion Energy Virginia's second team involved in DER interconnection, the DER Integration and Strategy Team, immediately hired a fully dedicated fulltime engineering resource to devote to studying Net Metering interconnections and developing the Net Metering interconnection study process. Since that time, this engineering resource has led the effort to publish the Net Metering Interconnection Parameters and has cross-trained the remainder of the team of eight to also participate in studying Net Metering interconnections. The third team involved in Net Metering Interconnection Studies is the Substation Engineering Team. This team has a dedicated supervisor overseeing the interconnection effort that is administered by external engineering resources.

With respect to Net Metering DERs producing less than 250 kW, where the majority of interconnections are residential customers with smaller concentrations of non-residential customers, the Company does not perform detailed engineering studies on the proposed sites.¹¹ However, facilities are still required to satisfy the eligibility criteria described in Chapter 315, Regulations Governing Net Energy Metering, and any applicable requirements. When aggregated in higher concentrations, these smaller sites can pose a significant safety and reliability risk to the system. However, currently, with the average residential solar array size being 7 kW, the Company has not experienced penetration levels that pose a hazard in most locations. Presently, for residential solar arrays, the Company considers the requirements in its initial screenings for proper UL certification on customer inverters and proper isolation devices on the customer system a sufficient review for safety. As penetration of these smaller residential systems increase, the threshold to require more detailed engineering studies may need to be adjusted as the aggregate impact of these smaller systems may lead to the same issues and concerns the Company has regarding larger non-residential Net Metering installations.

With respect to Net Metering DERs producing between 250 kW and 1 MW, the significant size of these assets can have a greater impact to the safety and reliability of the EPS and the general public if fault conditions are not promptly cleared. For all non-residential Net Metering interconnections, the average solar array size is 250kW. As such, this second category of Net Metering was designed to capture these larger sites to ensure the required engineering analysis is part of the interconnection process. For this category, the Company's engineering resources specifically study the associated load-to-generation ratio of the circuit to determine if direct transfer trip ("DTT") is needed. This analysis determines whether enough load exists on a

¹¹ Interconnection Parameters at 9.

distribution feeder to ensure a customer-owned inverter will disconnect quickly during fault conditions. DTT utilizes dark fiber as the communication medium and is a utility-owned and maintained protection system that ensures a consistent and effective method for disconnecting DERs during fault conditions. DTT also ensures local fault protection is properly coordinated with the larger EPS protection system to minimize outage time and over-trip scenarios. The DTT protection scheme ultimately limits transitory conditions on the EPS that may lead to significant customer and utility equipment damage. As DTT is a communication-based tripping scheme, it has visibility of all utility-owned sensory equipment on the utility feeder, which gives it the unique ability to pinpoint and isolate faults in less than ten cycles. This system is known and proven to prevent the mentioned fault conditions beyond the capabilities of customer-owned inverters.¹²

Finally, with respect to Net Metering DERs producing between 1 MW and 3 MW, the Company performs detailed voltage studies on all proposed DER sites. Given the significant size of the facilities in this category, the Company will also analyze the associated load-to-generation ratio of the facility to determine whether DTT is needed, using identical procedures to what is outlined above for 250 kW to 1 MW interconnection requests. The evaluation of the load-to-generation ratio of Net Metering DER is an important engineering safeguard necessary to ensure safe and reliable interconnections. Where this evaluation shows that the interconnection of a Net Metering DER could cause an undetected fault condition, sole reliance on the inverter-based resource onboard protection to mitigate this risk is insufficient; the Company therefore requires a standard system protection scheme that has been utilized on the EPS for several decades. The installation of DTT for 250kW and greater Net Metering DERs with a load-to-

¹² See, e.g., discussion of Electric Power Research Institute (“EPRI”) Technical Brief 3002022456 *infra* at 14.

generation ratio of less than 3:1, is a necessary precaution to ensure the safety and reliability of the interconnection and the EPS. The Company must be able to ensure, in real time, that the power flowing back onto the grid from a Net Metering DER does not continue to feed a fault on the EPS once it has been isolated by the upline utility device.

Currently, the integration of DTT as a safety mechanism is a challenge to the Company and the industry. With large volumes of DERs penetrating the EPS, all utilities are presented with the difficult problem of balancing safety and reliability (for which the utility is directly responsible) with the economics of providing cost-effective interconnections. Although new protection solutions are being developed by the industry that are self-contained within inverter-based resources (“IBR”), these resources are unproven, and it would be inconsistent with Good Utility Practice for a utility to immediately adopt these systems in place of traditional, proven utility-owned protection systems that have fostered safety and reliability across the industry as a whole for decades. For these reasons, the Company has concerns with the rapid introduction and promotion of IBR protection systems as a direct replacement for DTT.

Research performed by the Electric Power Research Institute (“EPRI”) and contained in Technical Brief 3002022456 identified that mixtures of synchronous machines and inverters and mixtures of dissimilar inverters led to degradation of the effectiveness of certain islanding detection methodologies that are claimed to be a direct replacement to DTT. This resulted in run-on times (the time between island formation and inverter tripping) in excess of what is required by IEEE 1547 (2 seconds). Also, utilities have experienced cases where IBRs located in areas of high DER penetration did not respond to an upstream fault condition, and instead, continued to generate after they were supposed to have tripped offline, the exact scenario that the Company’s protection requirements are intended to avoid. Because it is the utility that has the

ultimate responsibility to respond to the system emergency resulting from this situation, the Company has made the decision to require the use of protection systems that are proven to perform when called upon during emergency conditions. The Company does recognize the technical and economic challenges that blanket application of DTT present to DER interconnections and thus has designed the Interconnection Parameters to target larger non-residential Net Metering installations that operate more like front-of-the-meter installations, where impact to the system cannot be left unstudied, and the risks of developing larger problems are certain and cannot be ignored.

ARGUMENT

VA-DSA argues that by issuing the Interconnection Parameters, the Company has “usurped the Commission’s authority to establish interconnection standards that ensure distribution safety and authority which are not inconsistent with national recognized standards acceptable to the Commission.”¹³ VA-DSA further argues that the Company’s Interconnection Parameters “prematurely and unilaterally impose[] costs and delays...on members of VA-DSA and its Customer Generators that go well beyond those permitted under the Interconnection Rules and the NEM Rules and that directly contradict the Commission’s duty under the Interconnection Law to establish interconnection standards....” These arguments lack merit and should be rejected by the Commission.

At the outset, it is important to note that pursuant to its obligation to provide adequate service,¹⁴ the Company has the responsibility to manage, maintain, and operate its grid safely and reliably. By developing and implementing the Interconnection Parameters as well as the other referenced interconnection practices in the Petition, the Company is fulfilling this

¹³ Petition at 7.

¹⁴ Va. Code § 56-234.

responsibility. As previously noted, the Company communicated the need and reasoning for the Interconnection Parameters to Staff prior to their publication and implementation. Although the Commission exercises regulatory authority over the Company, the Company is ultimately responsible for the safe and reliable operation of its system, and the Commission should be highly skeptical of a request for injunctive relief which would second-guess and overrule the Company's judgment in doing so.¹⁵ Adherence to these principles requires denial of VA-DSA's requested relief.

A. Contrary to VA-DSA's allegations, the Company's development and implementation of the Interconnection Parameters comply with Va. Code § 56-578 and the Commission's Regulations Governing Net Energy Metering ("Net Metering Regulations")¹⁶

Va. Code § 56-578 provides in relevant part that:

All distributors shall have the obligation to connect any retail customer, including those using distributed generation, located within its service territory to those facilities of the distributor that are used for delivery of retail electric energy, *subject to Commission rules and regulations and approved tariff provisions relating to connection of service.*¹⁷

¹⁵ *Norfolk v. Chesapeake & Potomac Tel. Co.*, 192 Va. 292, 312 (1951) ("A commission is not empowered to substitute its judgment for that of the owners, who are responsible for the rendition of service, unless the owners have abused their discretion."); *Lake of Woods Util. Co. v. State Corp. Com.*, 223 Va. 100, 110, 286 S.E.2d 201, 206 (1982) ("an administrative agency may not assume the duties or usurp the powers of utility management").

¹⁶ 20 VAC 5-315-10 *et seq.*

¹⁷ Va. Code § 56-578 A (emphasis added).

It further provides:

Except as otherwise provided in this chapter, every distributor shall provide distribution service within its service territory on a basis which is just, reasonable, and not unduly discriminatory to suppliers of electric energy, including distributed generation, *as the Commission may determine*.¹⁸

This code provision also authorizes “the Commission to establish interconnection standards to ensure transmission and distribution safety and reliability, which standards shall not be inconsistent with nationally recognized standards *acceptable to the Commission*,”¹⁹ which should not make compliance unduly burdensome and expensive. The Commission is also charged with determining questions about the ability of specific equipment to meet interconnection standards.²⁰

Accordingly, the Commission has established interconnection conditions in Section 40 of the Net Metering Regulations. A customer’s generator is not permitted to interconnect to the Company’s grid if the interconnection

would reasonably lead to damage to any of the electric distribution company’s facilities or would reasonably lead to voltage regulation or power quality problems at other customer revenue meters due to the incremental effect of the generator on the performance of the electric distribution system, unless the customer reimburses the electric distribution company for its cost to accommodate the interconnection, including the reasonable cost of equipment required for the interconnection.²¹

As acknowledged by VA-DSA,²² Section 40 specifically authorizes the Company to impose charges upon a customer to meet interconnection requirements where such requirements are necessary to maintain the safety and reliability of the grid.²³

¹⁸ Va. Code § 56-578 B (emphasis added).

¹⁹ Va. Code § 56-578 C (emphasis added).

²⁰ Va. Code § 56-578 C.

²¹ 20 VAC 5-315-40 7.a.

²² Petition at 6.

²³ 20 VAC 5-315-40 D.

Consistent with “Good Utility Practice” as defined in the Interconnection Regulations²⁴ and its obligation to safely and reliably operate its grid, and given the increased penetration and larger sized net metering projects potentially interconnecting to the grid, the Company wisely undertook an evaluation of the impact of these projects connecting to its system. The results of this evaluation indicated that to maintain and ensure the safety and reliability of the grid, certain studies and parameters were needed to prevent damage and avoid voltage and power quality issues. Pursuant to 20 VAC 5-315-40 7.a. and 20 VAC 5-315-40 D, and the Commission regulations established under Va. Code § 56-578, the Company developed, issued, and implemented the Interconnection Parameters. These same regulations explicitly authorize the Company to impose costs on the customer, including the reasonable cost of equipment required for the customer to safely connect to the grid. In other words, Commission regulations provide that the Company need not approve or maintain an interconnection that could present a risk to the grid, and that the Company may permissibly identify parameters by which to address that risk and assign the associated cost to the net metering customer. Therefore, the Company’s development and implementation of the Interconnection Parameters do not violate Va. Code § 56-578 and do comply with the Net Metering Regulations.

B. Execution of the Small Generator Interconnection Agreement (“SGIA”) by customer generators is authorized by the Company’s Commission-approved Terms and Conditions and the Net Metering Regulations.

VA-DSA also requests that the Commission prohibit the Company’s practice of requiring Customer Generators to sign a SGIA. This request contravenes the Company’s Terms and Conditions approved by the Commission and the Net Metering Regulations, as well as potentially violates the Company’s exclusive franchise rights. Again, prior to the increased

²⁴ 20 VAC 5-314-20.

penetration of net metering projects and much larger projects seeking to interconnect to the grid, there were fewer risks to the grid. These risks first materialized on a large scale following the changes in the Net Metering Regulations (*i.e.*, eligible non-residential customers are permitted to construct generation facilities which produce up to 3 MW of generation and customers may now produce up to 150% of their expected annual energy consumption). To mitigate these risks and permit the safe interconnection of these assets, the Company must impose the associated costs on the Net Metering customer to meet the requirements of the conditions of interconnection consistent with 20 VAC 5-315-40 D of the Net Metering Regulations, warranting the use of the SGIA. The SGIA documents the parties' agreement on the use of the interconnection parameters identified during study and ensures the Net Metering customer understands and agrees to the associated estimated costs, as the Net Metering Regulations provide that the Net Metering customer (not the solar developer) is ultimately responsible for these costs to accommodate the interconnection, which include both interconnection costs and ongoing operations and maintenance ("O&M") costs, as applicable. The SGIA also sets forth operational provisions (*i.e.*, the Company can take the facility offline to ensure the safety of the grid) and responsibilities for certain equipment and infrastructure that were not previously documented to safely connect to grid.

Apparently, VA-DSA does not take issue with use of the SGIA in this circumstance, but instead, with the fact that the Company is requiring the *customer* (as opposed to the developer) to sign the SGIA. First, this is specifically authorized by the Company's Terms and Conditions approved by the Commission. Section II of the Company's Terms and Conditions states "the Company may prior to initiating Electric Service and at other reasonable times, require the Applicant to: 1. Establish that the Applicant is the owner or bona fide lessee of the premises and

to require all owners or bona fide lessees to have the Electric Service in their names. 2. Execute an application for service or the most current ‘Agreement for Electric Service’ on file with the Commission.” Under the Terms and Conditions, “Applicant” and “Customer” are both defined as “[a]ny person, group of persons, association, partnership, firm or corporation requesting Electric Service from the Company.”²⁵ Notably, the definition of Electric Service includes the interconnection of electric generators with the Company.²⁶ Therefore, because it is the customer – and not the developer – that is the “owner or bona fide lessee of the premises” where the net metering equipment is to be installed and used to offset the customer’s electric bill, the Company’s Terms and Conditions confirm that it is appropriate for the Company to require the customer to sign the SGIA. Moreover, the Net Metering Regulations make it clear that it is the customer (and not the generator) that is ultimately responsible for the costs set forth in the SGIA.²⁷

Second, requiring someone other than the customer to execute the SGIA potentially violates the Company’s exclusive franchise rights. In Virginia, public utilities have an exclusive franchise to furnish bundled electric service to retail customers within the boundaries of each utility’s certificated service territory.²⁸ Once a public utility has been granted the right to provide electric service in a particular territory, as the Company has in this instance, that right is exclusive.²⁹ Though there is an exception for customers who are generating electric energy exclusively for their own consumption, which would permit the installation and interconnection of a solar generation facility behind the customer’s meter to offset the customer’s own

²⁵ Sections I.3 and I.10 of Terms and Conditions.

²⁶ Section I.14 of Terms and Conditions.

²⁷ 20 VAC 5-315-40 7.a. (“unless the customer reimburses the electric distribution company for its cost to accommodate the interconnection, including the reasonable cost of equipment required for the interconnection.”)

²⁸ See Va. Code § 56-265.1, enacted as part of the Utility Facilities Act in 1950.

²⁹ Va. Code § 56-265.4

consumption, this exception does *not* extend to an arrangement where the facility is owned by a third party that is selling the output of the facility to the customer, as it would violate the Company's exclusive franchise rights. If the SGIA is executed by the developer, this creates a situation more akin to a generator selling the output to the customer instead of the customer interconnecting to the grid and offsetting its own output.³⁰ Thus, requiring the customer to execute the SGIA is both lawful and consistent with the Company's exclusive franchise rights.

Although not a party to the Power Purchase Agreements ("PPA") which govern the transaction between the customer and the customer's generator, the Company does not intend to adversely impact any duties and obligations set forth in the PPAs. As such, the Company is willing to work with Net Metering customers and VA-DSA to explore other options regarding execution of the SGIA consistent with its Terms & Conditions and the Net Metering Regulations.

C. The Company's use of the "Light Load to Cumulative Generation Capacity" screen for determining the need for direct transfer trip is permitted by the Net Metering Regulations and is consistent with Good Utility Practice.

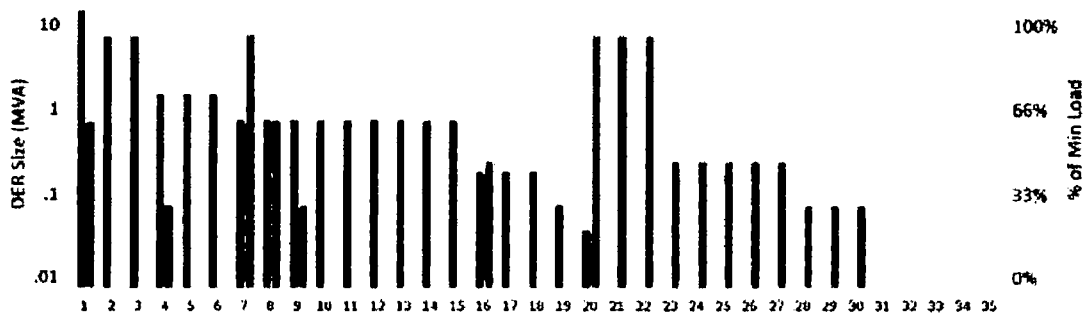
VA-DSA requests that the Commission suspend the Company's use of the Light Load to Cumulative Generation Capacity screen to justify direct transfer trip ("DTT") which requires dark fiber and additional substation protection upgrades.³¹ The Company's use of this screen and DTT is not new to the industry and has been used for decades to protect the grid and ultimately prevent interconnecting generation from feeding fault conditions. Notably, DTT is a standard requirement for peer utilities and is consistent with Good Utility Practice. Based on a previous survey led by the Electric Power Research Institute (EPRI Technical Brief 3002016638)

³⁰ The Renewable Energy Pilot Program creates a permissible way for non-utility generation owners to enter into PPAs with customers in this manner, but it is limited to 3 MW, with a total program cap of 500 MW for Dominion's Virginia jurisdictional customers.

³¹ Petition at 22.

which surveyed 35 U.S. based utilities in 2019, 14 of the 35 utilities use a threshold of 1 MVA or less as a starting point to determine the need for DTT. Seventeen (17) of the 35 utilities utilize a light load to cumulative generation requirement and 5 of 35 use the same 3:1 light load to generation ratio requirement as the Company. The results of this survey are outlined below in Figure 3. Furthermore, all 35 utilities identified the use of protection schemes to isolate faults from the public.

Figure 3: EPRI Survey Results of DTT Requirement Thresholds for Inverter Based DER



_ DTT Requirement Thresholds for Inverter Based DER

Suspension of the screen puts the grid at risk and jeopardizes the safety and reliability of the distribution system and the public when down wires remain energized. For these reasons, the Commission should reject this request.

D. VA-DSA’s request for injunctive relief should be denied because it does not satisfy the legal standard for granting an injunction.

VA-DSA seeks an injunction from the Commission directing the Company to suspend its Interconnection Parameters and recently adopted interconnection practices “at least until the Commission has completed its investigations in Commission Docket Nos. PUR-2022-00073 and PUR-2023-00069....”³² The “recently adopted interconnection practice” referred to by VA-DSA

³² Petition at 2-3, 22.

includes requiring Net Metering customers to sign a SGIA.³³ VA-DSA also requests that the Commission suspend the Company's use of the "Light Load to Cumulative Generation Capacity' screen to justify Direct Transfer Trip dark fiber and additional transformer, substation, and transmission upgrades...."³⁴ As mentioned above, consistent with Good Utility Practice and industry standards, the use of this screen has been in place for decades, and has recently been applied to Net Metering installations due to the increase in the quantity and size of net metering projects.

In its request for injunctive relief, VA-DSA relies on Va. Code § 56-6,³⁵ which authorizes the Commission to enjoin a public service corporation from actions or omissions in violation of any provisions or chapters under Title 56 of the Code of Virginia. As discussed in detail above, the Company's actions complained of by VA-DSA are in compliance with and required by applicable law and Commission regulations. Therefore, VA-DSA's request for injunctive relief fails as a matter of law and should be denied.

VA-DSA further relies on Va. Code § 56-247, which provides in relevant part that:

If upon investigation it shall be found that any regulation, measurement, practice, act or service of any public utility complained of is unjust, unreasonable, insufficient, preferential, unjustly discriminatory or otherwise in violation of law or if it be found that any service is inadequate or that any reasonable service cannot be obtained, the Commission may substitute therefor such other regulations, measurements, practices, service or acts and make such order respecting, and such changes in, such regulations, measurements, practices, service or acts as shall be just and reasonable.

For the same reasons VA-DSA's request for injunctive relief should be denied, Va. Code § 56-247 is likewise inapplicable here. The Company's actions in implementing the Interconnection Parameters, requiring customer generators to execute the SGIA, and utilizing the

³³ *Id.* at 3.

³⁴ *Id.* at 22.

³⁵ *Id.* at 4.

“Light Load to Cumulative Generation Capacity’s” screen are all necessary to maintain the safety and reliability of the Company’s grid, are in compliance with applicable law and regulations, consistent with Good Utility Practice, and are therefore reasonable. VA-DSA’s allegations have not demonstrated otherwise. Even so, this statutory provision requires the Commission to conduct an investigation *before* substituting or changing any regulations or practices. As such, even a temporary suspension of the Company’s conduct complained of by VA-DSA is unwarranted here. Rather, VA-DSA’s issues or concerns are more appropriately addressed in the Rulemaking Proceeding established by the Commission to determine whether the Commission’s Interconnection Regulations should be revised (Case No. PUR-2023-00069). In summary, the Company’s actions fit squarely within the applicable law and regulations, and are necessary for the Company to fulfill its duty to provide safe and reliable electric service to the public.

RESPONSE TO PETITIONER’S ALLEGATIONS

The Company responds as follows to the VA-DSA’s allegations made in support of its complaint and petition for injunctive relief and request for expedited consideration, and denies any allegations not expressly admitted:

1. The Company admits the allegations in Paragraph 1.
2. The Company admits the allegations in Paragraph 2.
3. The Company admits that the Interconnection Parameters address projects under 250 kW, projects that range from 250 kW to 1MW, and projects that range from 1 MW to 3MW. The remaining allegations in Paragraph 3 describe the relief sought by VA-DSA, which require no response. To the extent a response is required, the Company denies that VA-DSA is entitled to the relief requested in Paragraph 3.

4. To the extent the allegations in Paragraph 4 rely on the case and the Virginia constitutional provision cited in Paragraph 4, the Company states that the case and constitutional provision speak for themselves and denies any allegations that vary from or contradict the case and constitutional provision. The Company further states that it is up to the Commission to determine if it has jurisdiction over the alleged controversies asserted in the Petition.

5. To the extent that the allegations in Paragraph 5 rely on the statutory provision cited in Paragraph 5, the Company states that the statute speaks for itself, and denies allegations that vary from or contradict the statute. The Company further states that it is up to the Commission to determine if it has jurisdiction over the alleged controversies asserted in the Petition.

6. To the extent that the allegations in Paragraph 6 rely on the statutory provision cited in Paragraph 6, the Company states that the statute speaks for itself, and denies allegations that vary from or contradict the statute.

7. To the extent that the allegations in Paragraph 7 rely on the statutory provision cited in Paragraph 7, the Company states that the statute speaks for itself, and denies allegations that vary from or contradict the statute.

8. The Company states that it is up to the Commission to determine if it has jurisdiction over the alleged controversies asserted in the Petition but denies that VA-DSA is entitled to the relief it seeks in Paragraph 8 or elsewhere in its Petition.

9. To the extent that the allegations in Paragraph 9 rely on the statutory provision cited in Paragraph 9, the Company states that the statute speaks for itself, and denies allegations that vary from or contradict the statute.

10. To the extent that the allegations in Paragraph 10 rely on the statutory provision cited in Paragraph 10 and the excerpt from the Company's Interconnection Parameters cited in Paragraph 10, the Company states that the statutory provision and the excerpt from the Interconnection Parameters speak for themselves and denies allegations that vary from or contradict the statute or Interconnection Parameters.

11. To the extent that the allegations in Paragraph 11 rely on the statutory provision cited in Paragraph 11, the Company states that the statute speaks for itself, and denies allegations that vary from or contradict the statute.

12. To the extent that the allegations in Paragraph 12 rely on the statutory provision cited in Paragraph 12, the Company states that the statute speaks for itself, and denies allegations that vary from or contradict the statute.

13. To the extent the allegations in Paragraph 13 rely on the case cited in Paragraph 13, the Company states that the case speaks for itself, and denies any allegations that vary from or contradict the case.

14. To the extent the allegations in Paragraph 14 rely on Commission regulations cited in Paragraph 14, the Company states that the Commission regulations speak for themselves and denies any allegations that vary from or contradict the regulations.

15. To the extent the allegations in Paragraph 15 rely on Commission regulations cited in Paragraph 15, the Company states that the Commission regulations speak for themselves and denies any allegations that vary from or contradict the regulations.

16. To the extent the allegations in Paragraph 16 rely on the Commission order cited in Paragraph 16, the Company states that the cited order speaks for itself and denies any allegations that vary from or contradict the order.

17. To the extent the allegations in Paragraph 17 rely on the Commission order cited in Paragraph 17, the Company states that the cited order speaks for itself and denies any allegations that vary from or contradict the order.

18. The Company denies the allegations in Paragraph 18 and further denies that VA-DSA is entitled to the relief requested in Paragraph 18.

19. The Company admits that it has required Net Metering customers to execute SGIAAs, where applicable. The Company denies the remaining allegations in Paragraph 19.

20. The Company admits the allegations in Paragraph 20.

21. The Company admits the allegations in Paragraph 21.

22. To the extent that the allegations in Paragraph 22 rely on the Company's Interconnection Parameters, the Company states that the Interconnection Parameters speak for themselves and denies allegations that vary from or contradict Interconnection Parameters. The Company further denies that the requirements are contrary to Commission regulations.

23. The Company denies that the imposition of its Interconnection Parameters is not authorized by Virginia statute or regulation. The Company is without sufficient information to admit or deny the remaining allegations in Paragraph 23 and therefore denies the same.

24. The Company admits that the 710 kW solar array referenced in Paragraph 24 would have to bear approximately \$276,000 of upgrades and approximately \$320,000 of estimated costs for the installation of 5.9 miles of dark fiber. These costs are necessary to maintain the safety and reliability of the Company's EPS. The Company is without sufficient information to admit or deny the remaining allegations in Paragraph 24 and therefore denies the same.

25. The Company admits that the 686 kW solar array at the James River Juvenile Detention Center for Henrico County referenced in Paragraph 25 would have to bear an estimated \$2.25 million in preliminary costs. These costs are necessary to maintain the safety and reliability of the Company's EPS. The Company is without sufficient information to admit or deny the remaining allegations in Paragraph 25 and therefore denies the same.

26. The Company admits that the Prince William County Schools 986 kW solar rooftop solar array referenced in Paragraph 26 would have to bear certain interconnection costs but denies that such costs are onerous or punitive. These costs are necessary to maintain the safety and reliability of the Company's EPS. The Company is without sufficient information to admit or deny the remaining allegations in Paragraph 26 and therefore denies the same.

27. The Company admits that the 995 kW solar project in Augusta County referenced in Paragraph 27 may have required DTT and dark fiber which would result in additional costs but states that the developer withdrew the Interconnection Request prior to completing the study. Moreover, the interconnection request for this project was submitted under Chapter 314 Regulations Governing Interconnection of Small Electrical Generators and Storage, making it irrelevant to this dispute. The Company further admits that the 987 kW rooftop solar project on Freedom High School for Prince William County Public Schools is estimated to have more than \$1 million in interconnection costs. These costs are necessary to maintain the safety and reliability of the Company's EPS. The Company is without sufficient information to admit or deny the remaining allegations in Paragraph 27 and therefore denies the same.

28. The Company admits that the 902 kW solar array for the Grand Mart Project in Newport News referenced in Paragraph 28 would have to bear an additional estimated \$376,000 in interconnection costs but denies that the costs or delays were unprecedented. These costs are

necessary to maintain the safety and reliability of the Company's EPS. The Company is without sufficient information to admit or deny the remaining allegations in Paragraph 28 and therefore denies the same.

29. The Company admits that for less than 1% of the net metering requests constituting the larger projects which require more studies, the Company has submitted waiver requests of the 60-day requirement to the Commission where appropriate. The Company is without sufficient information to admit or deny the remaining allegations in Paragraph 29 and therefore denies the same.

30. The Company is without sufficient information to admit or deny the allegations in Paragraph 30 and therefore denies the same.

31. The Company is without sufficient information to admit or deny the allegations in Paragraph 31 and therefore denies the same.

32. The Company denies the allegations in Paragraph 32 except to admit that it utilizes the Light Load to Cumulative Generation Capacity minimum 3:1 screen ratio. The Company further admits that the use of this screen can be addressed in the rulemaking proceedings in Case No. PUR-2023-00069 but denies that its use should be temporarily suspended. The remaining allegations in Paragraph 32 describe the relief sought by VA-DSA, which require no response. To the extent a response is required, the Company denies that VA-DSA is entitled to the relief requested in Paragraph 32.

33. The Company denies the allegations in Paragraph 33 except to admit that the Company does require Net Metering customers to execute SGIA's as applicable and that prior to 2022, the Company did not require that on-going O&M costs be carried by the Net Metering customer under an SGIA. The Company lacks sufficient information to admit or deny the

allegations in Paragraph 33 regarding specific customers and VA-DSA members and therefore denies the same. The remaining allegations in Paragraph 33 describe the relief sought by VA-DSA, which require no response. To the extent a response is required, the Company denies that VA-DSA is entitled to the relief requested in Paragraph 33.

34. To the extent the allegations in Paragraph 34 rely on the April 25, 2023 letter to Mr. Robert Blue, President and Chief Executive Officer of Dominion, cited in Paragraph 34, the Company states that the letter speaks for itself, and denies any allegations that vary from or contradict the letter.

35. To the extent the allegations in Paragraph 35 rely on the April 25, 2023 letter to Mr. Robert Blue, President and Chief Executive Officer of Dominion, cited in Paragraph 35, the Company states that the letter speaks for itself, and denies any allegations that vary from or contradict the letter.

36. To the extent the allegations in Paragraph 36 rely on the May 4, 2023 letter from Mr. Nathan Frost, Director of New Technology and Energy Conservation, cited in Paragraph 36, the Company states that the letter speaks for itself, and denies any allegations that vary from or contradict the letter. The Company admits that the requirements in the Interconnection Parameters, such as DTT and dark fiber, are needed to maintain safe and reliable grid operation once the solar project is operational.

37. To the extent the allegations in Paragraph 37 rely on Commission regulations cited in Paragraph 37, the Company states that the regulation speaks for itself and denies any allegations that vary from or contradict the regulation. The Company denies the remaining allegations in Paragraph 37.

38. The Company denies the allegations in paragraph 38 except to state that the Commission regulations and referenced Staff Report speak for themselves. The Company further states that since the Net Metering Regulations were revised in 2020, the Company has been assessing, evaluating and planning for the safe and reliable operation of the grid with the increased penetration and size of solar projects.

39. With regard to the allegations concerning APCo and other electric cooperatives in the Commonwealth, the Company is without sufficient information to admit or deny these allegations but states every system is different and neither APCo nor any electrical cooperative in the Commonwealth has the same load or volume of projects of the Company. The Company further states that the referenced project was submitted to Dominion Energy Virginia as a 1 MW net metering interconnection. After consultation with the Company's engineering staff and understanding the interconnection costs and equipment requirements, the developer reduced the size to 975 kW and was able to avoid several necessary upgrades for the 1MW - 3 MW net metering category. The Company has three thresholds of net metering 0-250 kW, 250 kW-1 MW, and 1-3 MW. Each of these thresholds were developed by the Company's Engineering staff to dictate study rigor and equipment requirements based on the impact the three categories of generators can have on the system with regards to power quality and safety. The categories do not defy logic but were designed to identify sites that can have a greater effect to the system when interconnected without the proper protective and monitoring mechanisms. Thus, the Company denies that its Interconnection Parameters are inconsistently applied and that there is an open question as to whether they are consistent with the Good Utility Practice.

40. The Company is without sufficient information to admit or deny the allegations in Paragraph 40 regarding the members of VA-DSA. The Company denies the allegations in

Paragraph 40 directed towards the Company. The remaining allegations in Paragraph 40 describe the relief sought by VA-DSA, which requires no response. To the extent a response is required, the Company denies that VA-DSA is entitled to the relief requested in Paragraph 40.

41. The allegations in Paragraph 41 describe the relief sought by VA-DSA, which requires no response. To the extent a response is required, the Company denies that VA-DSA is entitled to the relief requested in Paragraph 41.

42. The allegations in Paragraph 42 describe the relief sought by VA-DSA, which requires no response. To the extent a response is required, the Company denies that VA-DSA is entitled to the relief requested in Paragraph 42.

43. To the extent the allegations in Paragraph 43 rely on the order cited in Paragraph 43, the Company states that the order speaks for itself, and denies any allegations that vary from or contradict the order. *Petition of Dogwood Solar, LLC For injunctive relief against Shenandoah Valley Electric Cooperative*, Case No. PUR-2020-00154, Final Order (Oct. 26, 2020), cited by VA-DSA,³⁶ is distinguishable from the instant case. In granting Dogwood Solar's petition, the Commission found that Shenandoah Valley Electric Cooperative had identified no tariff or regulation authorizing the requested O&M charge to connect Dogwood Solar.³⁷ As detailed above, the Company's actions complained of here are consistent with and authorized by applicable law and regulations.

44. The allegations in Paragraph 44 describe the relief sought by VA-DSA, which requires no response. To the extent a response is required, the Company denies that VA-DSA is entitled to the relief requested in Paragraph 44.

³⁶ Petition at 23-24.

³⁷ *Petition of Dogwood Solar, LLC For injunctive relief against Shenandoah Valley Electric Cooperative*, Case No. PUR-2020-00154, Final Order at 8 (Oct. 26, 2020).

45. The Company denies the allegations in Paragraph 45.

46. The allegations in Paragraph 46 describe the relief sought by VA-DSA, which requires no response. To the extent a response is required, the Company denies that VA-DSA is entitled to the relief requested in Paragraph 46.

AFFIRMATIVE DEFENSES

The Company asserts the following affirmative defenses without assuming the burden of any such defense that would otherwise rest on Petitioner and with reservation of its right to amend or supplement its response and affirmative defenses as information is gathered through any investigation and/or discovery. The Company has argued each of these in more detail above.

1. Petitioner has failed to state a claim, in whole or in part, upon which relief can be granted.
2. VA-DSA's request for injunctive relief does not satisfy the applicable legal standard for granting an injunction.
3. The Company has the responsibility to manage, maintain, and operate its grid safely and reliably.
4. The Company's development and implementation of the Interconnection Parameters comply with Va. Code § 56-578, the Commission's Regulations Governing Net Energy Metering and the Company's obligation to provide adequate service.
5. Execution of the Small Generator Interconnection Agreement ("SGIA") by the Net Metering customer is authorized by the Company's Commission-approved Terms and Conditions and the Interconnection Regulations.
6. The Company's use of the "Light Load to Cumulative Generation Capacity" screen for determining the need for Direct Transfer Trip is permitted by the Net Metering

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Regulations and is consistent with Good Utility Practice and the Company's obligation to provide adequate service.

CONCLUSION

WHEREFORE, Dominion Energy Virginia respectfully requests that the Commission deny the Petition in its entirety and provide any further relief as the Commission may deem appropriate.

Respectfully submitted,

Virginia Electric and Power Company

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June 21, 2023

CERTIFICATE OF SERVICE

I hereby certify that on this 21st day of June 2023, a true and accurate copy of the foregoing filed in Case No. PUR-2023-00097 was hand delivered, electronically mailed, and/or mailed first class postage pre-paid to the following:

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