

## TITLE 20. PUBLIC UTILITIES AND TELECOMMUNICATIONS

### STATE CORPORATION COMMISSION

#### Final Regulation

REGISTRAR'S NOTICE: The State Corporation Commission is claiming an exemption from the Administrative Process Act in accordance with § 2.2-4002 A 2 of the Code of Virginia, which exempts courts, any agency of the Supreme Court, and any agency that by the Constitution is expressly granted any of the powers of a court of record.

Title of Regulation: **20VAC5-315. Regulations Governing Net Energy Metering (amending 20VAC5-315-10 through 20VAC5-315-40; adding 20VAC5-315-75).**

Statutory Authority: §§ 12.1-13 and 56-594 of the Code of Virginia.

Effective Date: February 1, 2018.

Agency Contact: Tommy Oliver, Deputy Director, Division of Utility Accounting and Finance, State Corporation Commission, P.O. Box 1197, Richmond, VA 23218, telephone (804) 371-9358, FAX (804) 371-9350, or email [tommy.oliver@sc.virginia.gov](mailto:tommy.oliver@sc.virginia.gov).

Summary:

*Pursuant to Chapters 565 and 581 of the 2017 Acts of Assembly, the amendments add a definition of small agricultural generators, provide for the interconnection of such generators, and provide that as of July 1, 2019, interconnection of agricultural customer-generators shall cease for electric cooperatives only, and such facilities shall interconnect solely as small agricultural generators. Changes since the proposed stage include amendments to clarify that (i) requirements related to electric distribution company notification include small agricultural generators, (ii) small agricultural generators should be included with net metered generators in determining whether an electric distribution company has reached the cap on participation set forth in the Code of Virginia, and (iii) a small agricultural generator's supplier shall be obligated to purchase all of the electricity generated by such generator.*

AT RICHMOND, JANUARY 22, 2018

COMMONWEALTH OF VIRGINIA, ex rel.

STATE CORPORATION COMMISSION

CASE NO. PUR-2017-00099

Ex Parte: In the matter of amending regulations governing net energy metering

#### ORDER ADOPTING REGULATIONS

The Regulations Governing Net Energy Metering, 20VAC5-315-10 et seq. ("Existing Rules"), adopted by the State Corporation Commission ("Commission") pursuant to § 56-594 of the Virginia Electric Utility Regulation Act, Chapter 23 (§ 56-576 et seq.) of Title 56 of the Code of Virginia ("Code"), establish the requirements for participation by an eligible customer-generator in net energy metering in the Commonwealth of Virginia. The Existing Rules include conditions for interconnection and metering, billing, and contract requirements between net metering customers, electric distribution companies, and energy service providers.

On August 25, 2017, the Commission entered an Order Establishing Proceeding ("Order") to consider revisions to the Existing Rules to reflect statutory changes enacted by Chapters 565 and

581 of the 2017 Acts of Assembly ("Chapters 565 and 581"), which amended § 56-594 of the Code by adding a new § 56-594.2 to add a definition of "small agricultural generator" and to provide for the interconnection of such generator to utilities. In addition, Chapters 565 and 581 provided that on and after July 1, 2019, interconnection of eligible agricultural customer-generators under § 56-594 shall cease for electric cooperatives only, and such facilities shall interconnect solely as small agricultural generators under § 56-594.2.

The Commission appended to its Order proposed amendments ("Proposed Rules") revising the Existing Rules, which were prepared by the Staff of the Commission to reflect the revisions mandated by Chapters 565 and 581.

Notice of the proceeding and the Proposed Rules were published in the Virginia Register of Regulations on September 18, 2017. Additionally, each Virginia electric distribution company was directed to serve a copy of the Order upon each of their respective net metering customers. Interested persons were directed to file any comments and requests for hearing on the Proposed Rules on or before October 31, 2017.

Appalachian Power Company ("APCo"), Virginia Electric and Power Company d/b/a Dominion Energy Virginia ("DEV"), the Virginia Electric Cooperatives,<sup>1</sup> and James D. Boggs filed comments. No one requested a hearing on the Proposed Rules.

NOW THE COMMISSION, upon consideration of this matter, is of the opinion and finds that the regulations attached hereto as Appendix A ("Revised Rules") should be adopted as final rules.

DEV and APCo suggest that 20VAC5-315-30 be amended to clarify that requirements related to electric distribution company notification include small agricultural generators. We agree, and the Revised Rules reflect these modifications.

DEV and APCo suggest similar changes to 20VAC5-315-75. Specifically, the utilities note that the first sentence of the Proposed Rules references a power purchase agreement in which the small agricultural generator sells "all of the electricity generated," while the second sentence references the customer's supplier being obligated by the same power purchase agreement to "purchase the excess generation." We agree that this apparent inconsistency should be resolved and have changed the Revised Rules accordingly.

Finally, APCo suggests that 20VAC5-315-40(B) be revised to clarify that small agricultural generators should be included with net metered generators in determining whether "the total rated generating alternating current capacity of all interconnected net metered generators within ... [an] electric distribution company's Virginia service territory [exceeds] 1.0% of that company's Virginia peak-load forecast for the previous year," as provided in the Existing Rules. We agree and have modified the Revised Rules to reflect this change.

Accordingly, IT IS ORDERED THAT:

(1) The Regulations Governing Net Energy Metering, as shown in Appendix A to this Order, hereby are adopted and are effective as of February 1, 2018.

(2) A copy of this Order with Appendix A including the Regulations Governing Net Energy Metering shall be forwarded to the Registrar of Regulations for publication in the Virginia Register of Regulations.

(3) On or before May 1, 2018, each utility in the Commonwealth subject to Chapter 10 (§ 56-232 et seq.) of Title 56 of the Code of Virginia shall file with the Clerk of the Commission, in this docket, one (1) original document containing any revised tariff provisions necessary to implement the regulations adopted herein, and each such utility also shall file a copy of the document

containing the revised tariff provisions with the Commission's Division of Public Utility Regulation. The Clerk of the Commission need not distribute copies but shall make such filings available for public inspection in the Clerk's Office and post them on the Commission's website at: <http://www.scc.virginia.gov/case>.

(4) This docket shall remain open to receive the filings from electric utilities pursuant to Ordering Paragraph (3).

AN ATTESTED COPY hereof shall be sent by the Clerk of the Commission to all persons on the official Service List in this matter. The Service List is available from the Clerk of the State Corporation Commission, c/o Document Control Center, 1300 East Main Street, First Floor, Tyler Building, Richmond, Virginia 23219. A copy also shall be sent to the Commission's Office of General Counsel and Division of Public Utility Regulation and Utility Accounting and Finance.

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<sup>1</sup>The filing entitled "Comments of the Virginia Electric Cooperatives" was submitted jointly on behalf of: A&N Electric Cooperative, BARC Electric Cooperative, Central Virginia Electric Cooperative, Community Electric Cooperative, Craig-Botetourt Electric Cooperative, Mecklenburg Electric Cooperative, Northern Neck Electric Cooperative, Northern Virginia Electric Cooperative, Powell Valley Electric Cooperative, Prince George Electric Cooperative, Rappahannock Electric Cooperative, Shenandoah Valley Electric Cooperative, and Southside Electric Cooperative, as well as the Virginia, Maryland & Delaware Association of Electric Cooperatives.

#### **20VAC5-315-10. Applicability and scope.**

These regulations are promulgated pursuant to the provisions of §§ 56-594 and 56-594.2 of the Virginia Electric Utility Regulation Act (§ 56-576 et seq. of the Code of Virginia). They establish requirements intended to facilitate net energy metering for customers owning and operating, or contracting with persons to own or operate, or both, electrical generators that use specific types of renewable energy as the total fuel source. These regulations will standardize the interconnection requirements for such facilities and will govern the metering, billing, payment and contract requirements between net metering customers, electric distribution companies and energy service providers. Agricultural net metering customers are subject to the same provisions as nonagricultural net metering customers unless otherwise specified. On or after July 1, 2019, interconnection of eligible agricultural customer-generators shall cease for member-owned electric cooperatives only, and such facilities shall interconnect solely as small agricultural generators. For member-owned electric cooperatives, agricultural net metering customers whose agricultural renewable fuel generators were interconnected before July 1, 2019, may continue to participate in net energy metering for a period not to exceed 25 years from the date of their agricultural renewable fuel generator's original interconnection.

~~The amendments regarding agricultural net metering apply to customers of investor owned electric utilities on July 1, 2014, and apply to customers of electric cooperatives on July 1, 2015, as provided in the State Corporation Commission's Order Adopting Regulations, Case No. PUE-2014-00003, dated June 23, 2014, and published in the Virginia Register of Regulations, Volume 30, Issue 23, July 14, 2014.~~

These regulations also establish requirements for the interconnection of small agricultural generators. Small agricultural generators or agricultural renewable fuel generators may elect to interconnect as a net metering customer or as small agricultural generators pursuant to 20VAC5-315-75, but not both. Existing eligible agricultural renewable fuel generators may elect to become small agricultural generators, but may not revert to being an agricultural renewable fuel generator after such election.

## **20VAC5-315-20. Definitions.**

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

"Agricultural business" means any sole proprietorship, corporation, partnership, electing small business (Subchapter S) corporation, or limited liability company engaged primarily in the production and sale of plants and animals, products collected from plants and animals, or plant and animal services that are useful to the public.

"Agricultural net metering customer" means a customer that operates an electrical generating facility consisting of one or more agricultural renewable fuel generators having an aggregate generation capacity of not more than 500 kilowatts as part of an agricultural business under a net metering service arrangement. An agricultural net metering customer may be served by multiple meters of one utility that are located at separate but contiguous sites and that may be aggregated into one account. This account shall be served under the appropriate tariff.

"Agricultural renewable fuel generator" or "agricultural renewable fuel generating facility" means one or more electrical generators that:

1. Use as their sole energy source solar power, wind power, or aerobic or anaerobic digester gas;
2. The agricultural net metering customer owns and operates, or has contracted with other persons to own or operate, or both;
3. Are located on land owned or controlled by the agricultural business;
4. Are connected to the agricultural net metering customer's wiring on the agricultural net metering customer's side of the agricultural net metering customer's interconnection with the distributor;
5. Are interconnected and operated in parallel with an electric company's distribution facilities; and
6. Are used primarily to provide energy to metered accounts of the agricultural business.

"Billing period" means, as to a particular agricultural net metering customer or a net metering customer, the time period between the two meter readings upon which the electric distribution company and the energy service provider calculate the agricultural net metering customer's or net metering customer's bills.

"Billing period credit" means, for a nontime-of-use agricultural net metering customer or a nontime-of-use net metering customer, the quantity of electricity generated and fed back into the electric grid by the agricultural net metering customer's agricultural renewable fuel generator or generators or by the net metering customer's renewable fuel generator or generators in excess of the electricity supplied to the customer over the billing period. For time-of-use agricultural net metering customers or time-of-use net metering customers, billing period credits are determined separately for each time-of-use tier.

"Contiguous sites" means a group of land parcels in which each parcel shares at least one boundary point with at least one other parcel in the group. Property whose surface is divided only by public right-of-way is considered contiguous.

"Customer" means a net metering customer or an agricultural net metering customer.

"Demand charge-based time-of-use tariff" means a retail tariff for electric supply service that has two or more time-of-use tiers for energy-based charges and an electricity supply demand (kilowatt) charge.

"Electric distribution company" means the entity that owns ~~and/or~~ or operates the distribution facilities delivering electricity to the premises of an agricultural net metering customer or a net metering customer.

"Energy service provider (supplier)" means the entity providing electricity supply service, either tariffed or competitive service, to an agricultural net metering customer or a net metering customer.

"Excess generation" means the amount of electrical energy generated in excess of the electrical energy consumed by the agricultural net metering customer or net metering customer over the course of the net metering period. For time-of-use agricultural net metering customers or net metering customers, excess generation is determined separately for each time-of-use tier.

"Generator" or "generating facility" means an electrical generating facility consisting of one or more renewable fuel generators or one or more agricultural renewable fuel generators that meet the criteria under the definition of "net metering customer" and "agricultural net metering customer," respectively.

"Net metering customer" means a customer owning and operating, or contracting with other persons to own or operate, or both, an electrical generating facility consisting of one or more renewable fuel generators having an aggregate generation capacity of not more than 20 kilowatts for residential customers and not more than one megawatt for nonresidential customers. The generating facility shall be operated under a net metering service arrangement.

"Net metering period" means each successive 12-month period beginning with the first meter reading date following the final interconnection of an agricultural net metering customer or a net metering customer's generating facility consisting of one or more agricultural renewable fuel generators or one or more renewable fuel generators, respectively, with the electric distribution company's distribution facilities.

"Net metering service" means providing retail electric service to an agricultural net metering customer operating an agricultural renewable fuel generating facility or a net metering customer operating a renewable fuel generating facility and measuring the difference, over the net metering period, between the electricity supplied to the customer from the electric grid and the electricity generated and fed back to the electric grid by the customer.

"Person" means any individual, sole proprietorship, corporation, limited liability company, partnership, association, company, business, trust, joint venture, or other private legal entity, the Commonwealth, or any city, county, town, authority, or other political subdivision of the Commonwealth.

"Renewable Energy Certificate" or "REC" represents the renewable energy attributes associated with the production of one megawatt-hour (MWh) of electrical energy by a generator.

"Renewable fuel generator" or "renewable fuel generating facility" means one or more electrical generators that:

1. Use renewable energy, as defined by § 56-576 of the Code of Virginia, as their total fuel source;
2. The net metering customer owns and operates, or has contracted with other persons to own or operate, or both;

3. Are located on the net metering customer's premises and connected to the net metering customer's wiring on the net metering customer's side of its interconnection with the distributor;
4. Are interconnected pursuant to a net metering arrangement and operated in parallel with the electric distribution company's distribution facilities; and
5. Are intended primarily to offset all or part of the net metering customer's own electricity requirements. The capacity of any generating facility installed on or after July 1, 2015, shall not exceed the expected annual energy consumption based on the previous 12 months of billing history or an annualized calculation of billing history if 12 months of billing history is not available.

"Small agricultural generating facility" means an electrical generating facility that:

1. Has a capacity of not more than 1.5 megawatts and does not exceed 150% of the customer's expected annual energy consumption based on the previous 12 months of billing history or an annualized calculation of billing history if 12 months of billing history is not available;
2. Uses as its total source of fuel renewable energy;
3. Is located on the customer's premises and is interconnected with the utility's distribution system through a separate meter;
4. Is interconnected and operated in parallel with an electric utility's distribution system but not transmission facilities;
5. Is designed so that the electricity generated is expected to remain on the utility's distribution system; and
6. Is a qualifying small power production facility pursuant to the Public Utility Regulatory Policies Act of 1978 (P.L. 95-617).

"Small agricultural generator" means a customer that:

1. Is not an eligible agricultural customer-generator pursuant to § 56-594 of the Code of Virginia;
2. Operates a small agricultural generating facility as part of an agricultural business;
3. May be served by multiple meters that are located at separate but contiguous sites;
4. May aggregate the electricity consumption measured by the meters, solely for purposes of calculating 150% of the customer's expected annual energy consumption but not for billing or retail service purposes, provided that the same utility serves all of its meters;
5. Uses not more than 25% of the contiguous land owned or controlled by the agricultural business for purposes of the renewable energy generating facility; and
6. Provides the electric utility with a certification, attested under oath, as to the amount of land being used for renewable generation.

"Time-of-use customer" means an agricultural net metering customer or net metering customer receiving retail electricity supply service under a demand charge-based time-of-use tariff.

"Time-of-use period" means an interval of time over which the energy (kilowatt-hour) rate charged to a time-of-use customer does not change.

"Time-of-use tier" or "tier" means all time-of-use periods given the same name (e.g., on-peak, off-peak, critical peak, etc.) for the purpose of time-differentiating energy (kilowatt-hour)-based charges. The rates associated with a particular tier may vary by day and by season.

### **20VAC5-315-30. Company notification.**

A. A prospective agricultural net metering customer [ ~~or~~ ] a prospective net metering customer [ , or a prospective small agricultural generator ] (hereinafter referred to as "customer") shall submit a completed commission-approved notification form to the electric distribution company and, if different from the electric distribution company, to the energy service provider, according to the time limits in this subsection. If the prospective customer has contracted with another person to own or operate, or both, the generator or generators, then the notice will include detailed, current, and accurate contract information for the owner or operator, or both, including without limitation, the name and title of one or more individuals responsible for the interconnection and operation of the generator or generators, a telephone number, a physical street address other than a post office box, a fax number, and an email address for each such person.

1. A residential customer shall notify its supplier and receive approval to interconnect prior to installation or adding capacity to an electrical generating facility. The electric distribution company shall have 30 days from the date of notification to determine whether the requirements contained in 20VAC5-315-40 have been met. The date of notification shall be considered to be the third day following the mailing of the notification form by the prospective customer.

2. A nonresidential customer shall notify its supplier and receive approval to interconnect prior to installation or adding capacity to an electrical generating facility. The electric distribution company shall have 60 days from the date of notification to determine whether the requirements contained in 20VAC5-315-40 have been met. The date of notification shall be considered to be the third day following the mailing of the notification form by the prospective customer.

B. Thirty-one days after the date of notification for a residential customer, and 61 days after the date of notification for a nonresidential customer, the prospective customer may interconnect and begin operation of the generating facility unless the electric distribution company or the energy service provider requests a waiver of this requirement under the provisions of 20VAC5-315-80 prior to the 31st or 61st day, respectively. In cases where the electric distribution company or energy service provider requests a waiver, a copy of the request for waiver must be mailed simultaneously by the requesting party to the prospective customer and to the commission's Division of Energy Public Utility Regulation.

C. The electric distribution company shall file with the commission's Division of Energy Public Utility Regulation a copy of each completed notification form within 30 days of final interconnection.

### **20VAC5-315-40. Conditions of interconnection.**

A. A prospective customer may begin operation of the generating facility on an interconnected basis when:

1. The customer has properly notified both the electric distribution company and energy service provider (in accordance with 20VAC5-315-30) of the customer's intent to interconnect.

2. If required by the electric distribution company's tariff, the customer has installed a lockable, electric distribution company accessible, load breaking manual disconnect switch at each of the facility's generators.

3. The licensed electrician who installs the customer's generator or generators certifies, by signing the commission-approved notification form, that any required manual disconnect switch or switches are being installed properly and that the generator or generators have been installed in accordance with the manufacturer's specifications as well as all applicable provisions of the National Electrical Code. If the customer or licensed Virginia Class A or B general contractor installs the customer's generator or generators, the signed final electrical inspection can be used in lieu of the licensed electrician's certification.
4. The vendor certifies, by signing the commission-approved notification form, that the generator or generators being installed are in compliance with the requirements established by Underwriters Laboratories or other national testing laboratories in accordance with IEEE Standard 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, July 2003.
5. In the case of static inverter-connected generators with an alternating current capacity in excess of 10 kilowatts, the customer has had the inverter settings inspected by the electric distribution company. The electric distribution company may impose a fee on the customer of no more than \$50 for each generator that requires this inspection.
6. In the case of nonstatic inverter-connected generators, the customer has interconnected according to the electric distribution company's interconnection guidelines and the electric distribution company has inspected all protective equipment settings. The electric distribution company may impose a fee on the customer of no more than \$50 for each generator that requires this inspection.
7. The following requirements shall be met before interconnection may occur:
  - a. Electric distribution facilities and customer impact limitations. A customer's generator shall not be permitted to interconnect to distribution facilities 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.
  - b. Secondary, service, and service entrance limitations. The capacity of the generators at any one service location shall be less than the capacity of the electric distribution company-owned secondary, service, and service entrance cable connected to the point of interconnection, unless the customer reimburses the electric distribution company for the reasonable cost of equipment required for the interconnection.
  - c. Transformer loading limitations. A customer's generator shall not have the ability to overload the electric distribution company's transformer, or any transformer winding, beyond manufacturer or nameplate ratings, unless the customer reimburses the electric distribution company for the reasonable cost of equipment required for the interconnection.
  - d. Integration with electric distribution company facilities grounding. The grounding scheme of each generator shall comply with IEEE 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, July 2003, and shall be consistent with the grounding scheme used by the electric distribution company. If requested by a prospective customer, the electric distribution company shall assist the prospective customer in selecting a grounding scheme that coordinates with its distribution system.

e. Balance limitation. The generator or generators shall not create a voltage imbalance of more than 3.0% at any other customer's revenue meter if the electric distribution company transformer, with the secondary connected to the point of interconnection, is a three-phase transformer, unless the customer reimburses the electric distribution company for the reasonable cost of equipment required for the interconnection.

B. A prospective customer [ or small agricultural generator ] shall not be allowed to interconnect a generator if doing so will cause the total rated generating alternating current capacity of all interconnected net metered generators, as defined in 20VAC5-315-20, within that customer's electric distribution company's Virginia service territory to exceed 1.0% of that company's Virginia peak-load forecast for the previous year. In any case where a prospective customer has submitted a notification form required by 20VAC5-315-30 and that customer's interconnection would cause the total rated generating alternating current capacity of all interconnected net metered generators, as defined in 20VAC5-315-20, within that electric distribution company's service territory to exceed 1.0% of that company's Virginia peak-load forecast for the previous year, the electric distribution company shall, at the time it becomes aware of the fact, send written notification to the prospective customer and to the commission's Division of ~~Energy~~ Public Utility Regulation that the interconnection is not allowed. In addition, upon request from any customer, the electric distribution company shall provide to the customer the amount of capacity still available for interconnection pursuant to § 56-594 D of the Code of Virginia.

C. Neither the electric distribution company nor the energy service provider shall impose any charges upon a customer for any interconnection requirements specified by this chapter, except as provided under subdivisions A 5, A 6, and A 7 of this section, 20VAC5-315-50, and 20VAC5-315-70 as related to additional metering.

D. A customer shall immediately notify the electric distribution company of any changes in the ownership of, operational responsibility for, or contact information for any of the customer's generators.

#### **20VAC5-315-75. Interconnection of small agricultural generators.**

[ ~~Small~~ A small ] agricultural [ ~~generators~~ generator ] electing to interconnect pursuant to this section shall enter into a power purchase agreement with its supplier to sell all of the electricity generated from its small agricultural generating facility. The customer's supplier shall be obligated by the power purchase agreement to purchase the [ ~~excess generation~~ electricity generated ] at a price equal to a rate agreed upon by the parties that is not less than the utility's commission-approved avoided cost tariff for energy and capacity.

Small agricultural generators with renewable energy certificates or other environmental attributes generated by the small agricultural generating facility shall have the rights described in 20VAC5-315-50.

Small agricultural generators shall abide by the small generator interconnection process described in 20VAC5-314. Such customer shall be responsible for all costs associated with any interconnection or engineering studies that may be required prior to interconnection.

#### DOCUMENTS INCORPORATED BY REFERENCE

1547, IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems, July 2003, The Institute of Electrical and Electronics Engineers, Inc.

~~Rider G, Renewable Energy Program, Virginia Electric and Power Company, January 1, 2009.~~

[Rider G, Renewable Energy Program, Virginia Electric and Power Company, January 1, 2012](#)

VA.R. Doc. No. R18-5222; Filed January 22, 2018, 8:04 p.m.