

Virginia Net Metering Service



Customer Information Package



An **AEP** Company

BOUNDLESS ENERGY™

January 17, 2024

Net Metering is an incentivized program designed to encourage investment in renewable energy. It is available to certain eligible Appalachian Power customers who operate on-site renewable energy generators (such as solar panels) and wish to make some or all of their own electricity. Approved customers are allowed to interconnect their generators with the grid, generally via a breaker in their electric service panel, providing renewable energy to their own electrical loads. Any excess energy is measured at the billing meter and then delivered to the grid. That excess energy is then “banked” for use on future bills to offset billable consumption as described in our Net Metering Service Rider. This is particularly beneficial for solar and wind generation as these are intermittent power sources.

This package includes our Net Metering Service Rider for Virginia. Please read this document carefully as it specifies the eligibility requirements as well as the conditions of your electric service while interconnected with us. Of particular importance, please note that the maximum allowed generator size for a residential account is 25 kW AC and for a commercial account is 3 MW AC. In addition to these maximum generator sizes, the capacity of any generator is further limited to an annual energy output no greater than a your previous 12 months electrical energy consumption (or an annualized estimate made using utility methodologies based upon the expected annual output of the generator for situations such as a newly constructed home). Inverters **must** be UL1741 SB and IEEE1547-2018 compliant. Please see our Technical Interconnection and Interoperability Requirements (TIIR) [\[here\]](#). A labeled, lockable, load breaking disconnect is required outside near our electric meter so that the renewable fuel generator can be isolated, if necessary. Wind turbines should be located at least 1.5 times their height away from any overhead power lines. An inspection fee of \$50 is required for any non-inverter based system or an inverter based system greater than 10 kW AC. You must carry liability insurance while interconnected. Other requirements are specified in the tariff. To obtain non-net metering documents or non-inverter based systems, or for questions about eligibility, please contact us at apcodgcoordinator@aep.com.

The 2 page notification form (Form NMIN) is also included in the package. Sections 1-4 should be submitted **before** making a commitment to purchase in order to receive preliminary approval for interconnection. Any applicable inspection fee should be submitted at this time as well. After completion of the installation, this form should be fully completed and re-submitted to APCo for final field verification/review. This form must include a licensed electrician’s signature to certify that the system has been installed in accordance with the manufacturer’s specifications as well as all applicable provisions of the National Electric Code. The vendor of the inverter must also sign to certify that the inverter is UL1741 compliant. If the generator was not installed by a licensed electrician, a signed final electrical inspection report from your city, town or county’s electrical inspection department may be attached to the application in lieu of a licensed electrician’s signature.

Form NMIN, along with any applicable inspection fees, evidence of liability insurance that meets requirements for net metering as referenced in the Net Metering Service Rider, a one-line diagram and sketch layout should be submitted as shown below. Submissions may be made by email, mail or our online portal located at <https://aep.powerclerk.com>.

Appalachian Power
Customer Services – 5th
Floor
P.O. Box 2021
Roanoke, VA
24022
apcodgcoordinator@aep.com

Customers are reminded that the terms, conditions, fees, and eligibility requirements for net metering service are subject to revision, as approved by the Virginia State Corporation Commission.

Please leave your generator OFF until APCo has completed the final review and your meter has been exchanged.

VA. S.C.C. TARIFF NO. 26

OPTIONAL RIDER N.M.S.
(Net Metering Service Rider)

AVAILABILITY OF SERVICE

Available for new or existing customers who take Standard Service from the Company, own and operate, or contract with other persons to own or operate, or both; an eligible renewable fuel generator or agricultural renewable fuel generator as further defined below designed to operate in parallel with the Company's system and request Net Metering Service (NMS) from the Company. Those Customers who utilize time-of-day provisions must have service that has two or more time-of-use tiers for energy-based charges and an electricity supply demand charge. Customers that do not take Standard Service shall make net metering arrangements with their Competitive Service Provider. The total capacity of all NMS Customers shall be limited pursuant to subsection E of § 56-594 of the Code of Virginia, and shall be available to customers with eligible Generators on a first come, first serve basis. In the event a prospective net metering customer has submitted a notification form required by Rule 20 VAC5-315-30 ("Interconnection Form") and that customer's interconnection would cause the Company to exceed the "Renewable Generator Limit", the Company will provide the proper notification to the customer and the Commission's Division of Energy Regulation

DEFINITIONS

The following terms: "Agricultural Net Metering Customer," "Agricultural Renewable Fuel Generator," "Billing Period Credit," "Customer," "Excess Generation," "Net Metering Customer," "Net Metering Period," "Net Metering Service," "Person," "Renewable Energy Certificate (REC)," "Renewable Fuel Generator," "Small agricultural generating facility," and "Small agricultural generator" shall solely be used to define the applicability of Rider N.M.S in conjunction with additional terms defined in accordance with Rule 20 VAC 5-315-20. These terms can be found at the following location: <https://law.lis.virginia.gov/admincode/title20/agency5/chapter315/section20/>

A. Notification

1. A prospective net metering customer shall notify and receive approval to interconnect prior to starting any construction, installation or addition of capacity to an electrical generating facility via the commission-approved Interconnection Form (Form NMIN) which can be found at the Company's website at <https://www.appalachianpower.com/global/utilities/lib/docs/builders/VA/NMINforVA.pdf>. The prospective net metering customer may submit the Interconnection Form either directly to the Company or by mail. Alternatively, the customer may complete the online form at <https://aep.powerclerk.com/MvcAccount/Login>. All sections that require the Company's review, including appropriate signatures, of the Interconnection Form must be completed for the notification to be valid. Both the Company and the prospective net metering customer must comply with notification requirements contained in 20VAC5 315 30 (<https://law.lis.virginia.gov/admincode/title20/agency5/chapter315/section30/>).
2. Thirty-one (31) days after the date of final notification for a residential customer, and sixty-one (61) days after the date of final notification for a nonresidential customer, the prospective customer may interconnect and begin operation of the generating facility unless the Company requests a waiver of this requirement under the provisions of 20VAC5-315-80 prior to the 31st or 61st day, respectively. Within this period, the Company shall also make a determination whether there is cause to file a request for waiver with the VA. S.C.C.
3. The Customer shall immediately notify the Company of any changes in the ownership of, operational responsibility for, or contact information for the Generator.

VA. S.C.C. TARIFF NO. 26

OPTIONAL RIDER N.M.S.
(Net Metering Service Rider)
(continued)

CONDITIONS OF SERVICE

B. Conditions of Interconnection

Prospective net metering customers must interconnect in accordance with 20VAC5-315-40. 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.

Customer

1. A Generating system shall meet all applicable safety and performance standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories. The vendor certifies, by signing the commission-approved Interconnection Form that the Generation equipment is being installed 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.

In addition, non-static inverter-connected Generator equipment and installations shall comply with the Company's Interconnection Guidelines. The Company shall provide a copy of its Interconnection Guidelines to the Customer upon request.

2. The following requirements shall be met before interconnection may occur:
 - a. Electric Distribution Facilities and Customer Impact Limitations. A Generator shall not be permitted to interconnect to the Company's distribution facilities if the interconnection would reasonably lead to damage of any of the 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 Company's electric distribution system, unless the customer reimburses the Company for its cost to accommodate the interconnection, including the reasonable cost of equipment required for the interconnection. In addition, the Customer shall reimburse the Company for all state and federal income taxes associated with such reimbursement.
 - b. Secondary, Service and Service Entrance Limitations. The capacity of the Generator shall be less than the capacity of the Company-owned secondary, service, and service entrance cable connected to the point of interconnection, unless the Customer reimburses the Company for the reasonable cost of equipment required for the interconnection. In addition, the Customer shall reimburse the Company for all state and federal income taxes associated with such reimbursement.
 - c. Transformer Loading Limitations. The Generator shall not have the ability to overload the Company's transformer, or any transformer winding, beyond manufacturer or nameplate ratings, unless the customer reimburses the Company for the reasonable cost of equipment required for the interconnection. In addition, the Customer shall reimburse the Company for all state and federal income taxes associated with such reimbursement.
 - d. Integration With 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 Company. If requested by a prospective customer, the Company shall assist the customer in selecting a grounding scheme the coordinates with the Company's distribution system.

VA. S.C.C. TARIFF NO. 26

**OPTIONAL RIDER N.M.S.
(Net Metering Service Rider)
(continued)****Customer (Cont'd)**

- e. Balance Limitation. The Generator shall not create a voltage imbalance of more than 3.0% at any other customer's revenue meter if the Company's transformer, with the secondary connected to the point of interconnection, is a three-phase transformer, unless the Customer reimburses the Company for the reasonable cost of equipment required for the interconnection. In addition, the Customer shall reimburse the Company for all state and federal income taxes associated with such reimbursement.
3. The Customer is required to maintain liability insurance with the requirements contained in 20VAC5 315 60 (<https://law.lis.virginia.gov/admincode/title20/agency5/chapter315/section60/>). The Company's receipt of evidence of liability insurance does not imply an endorsement of the terms and conditions of the coverage.
4. Following Notification by the Customer, the Company shall have the right to inspect and test the Generator equipment and installation prior to interconnection. The nature and extent of these tests shall be determined solely by the Company. The Company reserves the right to conduct additional tests and inspections and to install additional equipment or meters at any time following interconnection of the Generator.
5. The Generator installation must have a visibly open, lockable, manual disconnect switch at each of the facility's generators which is accessible by the Company and clearly labeled. A licensed electrician must certify via the Interconnection Form that the disconnection switch has been installed properly. Alternatively, 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. The Company reserves the right to install any additional equipment, including controls and meters, at the facility.
6. The Customer shall periodically maintain and test the Generator in accordance with the manufacturer's specifications and all applicable safety and performance standards. The Customer shall notify the Company at least fourteen (14) days prior to making any material changes to the Generator facility or installation, including, but not necessarily limited to, any modification to the equipment or protective equipment settings or disconnection of the Generator from the Company's system, excluding temporary disconnects for routine maintenance. Following a notification of disconnection of the Generator, the customer must again complete the notification process specified above prior to any subsequent reconnection.

In addition, the Customer shall notify the Company immediately regarding either any damage to the Generator facility or safety-related emergency disconnections.

7. Interconnection authorization is not transferable or assignable to other persons or service locations.

Issued: April 7, 2021

Pursuant to Final Order

Dated: November 24, 2020, as modified and reinstated effective March 26, 2021

Case PUR-2020-00015

Effective: April 12, 2021

VA. S.C.C. TARIFF NO. 26**OPTIONAL RIDER N.M.S.
(Net Metering Service Rider)
(continued)****Small Agricultural Generators**

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.

Small agricultural generators electing to interconnect pursuant to this section shall enter into a power purchase agreement with the Company to sell all of the electricity generated from its small agricultural generating facility. The Company shall be obligated by the power purchase agreement to purchase the electricity generated at a price equal to a rate agreed upon by the parties that is not less than the Company's Schedule Cogen/SPP approved as the Company's 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 as detailed in this Rider under "Renewable Energy Credits".

FACILITIES CHARGES

The Customer is responsible for all equipment and installation costs of the Generator facility.

The Company shall inspect the inverter settings of a static inverter-connected generator with capacity in excess of 10 kW prior to interconnection. The Customer shall pay \$50 to the Company for each generator that requires inspection.

The Company shall inspect the protective equipment settings of a non-static inverter-connected generator prior to interconnection. The Customer shall pay \$50 to the Company for each generator that requires inspection.

The Customer shall pay to the Company any additional charges, as determined by the Company, for equipment, labor, metering, testing or inspections requested by the customer. To insure public safety, power quality, and reliability of the Company's system, a Customer shall bear all reasonable costs of equipment required for the interconnection to the Company's system, including costs, if any, to (i) install additional controls and (ii) perform additional tests. In addition, the Customer shall reimburse the Company for all state and federal income taxes associated with such additional charges.

METERING- Customer

Net metered energy shall be measured in accordance with standard metering practices by metering equipment capable of measuring (but not necessarily displaying) power flow in both directions.

In instances where a Customer has requested, and where the Company would not have otherwise installed, metering equipment that is intended to be read off-site, the Company may charge the Customer its actual cost of installing any additional equipment necessary to implement net metering service.

A time-of-use Customer shall bear the incremental metering costs associated with Net Metering.

Agricultural Net Metering Customers shall be responsible for the cost of additional metering equipment necessary to accomplish account aggregation.

Any incremental metering costs associated with measuring the total output of the Generator for the purposes of receiving Renewable Energy Certificates shall be installed at the Customer's expense.

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VA. S.C.C. TARIFF NO. 26

**OPTIONAL RIDER N.M.S.
(Net Metering Service Rider)
(continued)****METER AGGREGATION**

Only Agricultural Net Metering Customers are eligible for meter aggregation. An Agricultural Net Metering Customer may, but need not, apply to the Company to aggregate into one account the load of multiple meters located at separate but contiguous sites the customer uses for its agricultural business. The applicant must provide to the Company deeds, plats, leases, or other evidence satisfactory to Company to show that the meters the customer desires to aggregate are (1) on the same or contiguous sites and (2) that the customer uses the affected sites for its Agricultural business. After the applicant has demonstrated to Company's reasonable satisfaction that it qualifies for meter aggregation, the Company will determine the applicable Standard Schedule for the aggregated meters. To do so, Company will determine the coincident peak demand recorded or estimated over the most recent 12 months on the meters to be aggregated and assign the aggregated meters to the applicable Standard Schedule for the aggregated coincident peak demand. If any of the existing meters to be aggregated is not capable of recording demand data, Company will work in good faith with the customer to estimate a peak demand for the facilities on the customer's side of each such meter. To the extent the customer's requested meter aggregation requires Company to replace or enhance an existing meter with a meter with increased capabilities, e.g., replacing a non-demand recording meter with a meter capable of recording demand data, the Company will charge customer for the entire cost of the meter replacement or enhancement, for which payment in full will be due to Company on the due date of the bill on which the charge first appears. This condition applies only to meter replacements or enhancements required to achieve a customer's requested meter aggregation; it does not apply to the cost of any meter replacements or enhancements necessary solely to implement net metering. If the actual demand and consumption warrant a revision after the installation of demand recording meters the Company will reassess the applicable Standard Schedule for the aggregated meters.

Upon aggregating meters according to the applying customer's request as described above, the Company will bill the Customer for monthly coincident demand and total energy consumption across the aggregated meters as though the aggregated meters were a single meter under the appropriate Standard Schedule and this Rider NMS. The highest-voltage service supplied to any of the aggregated meters will be the voltage used to determine the appropriate Standard Schedule for all the aggregated meters and the applicable charges under that rate schedule. For example, a Customer aggregating two secondary-level services and one primary-level service will be billed for primary-level basic service, demand, and energy charges for all three aggregated meters under the appropriate rate schedule. After Company aggregates meters according to the customer's request, a Customer may not remove a meter from a requested aggregation unless the Customer ceases to take service at that location or ceases to qualify as an Agricultural Net Metering Customer.

A Customer may add qualifying meters to an existing aggregation upon application to Company showing sufficient evidence to qualify for aggregation as described above. An Agricultural Net Metering Customer who aggregates meters must notify Company within 90 days of any outage of the Customer's generating facility and provide reasonable evidence of the Customer's efforts to restore the generating facility to service in a timely manner.

Company will use good faith to determine if the Customer's efforts are reasonably likely to restore the facility to service in a timely manner. If Company determines in its sole discretion that the Customer is not making reasonable efforts to restore the facility to service in a timely manner, Company will discontinue the Customer's meter aggregation and Net Metering Service effective immediately, and will bill the customer at the standard rate schedules individually applicable to the meters.

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VA. S.C.C. TARIFF NO. 26**OPTIONAL RIDER N.M.S.
(Net Metering Service Rider)
(continued)****MONTHLY CHARGES**

All monthly charges shall be in accordance with the Standard Schedule under which the Customer takes service. Such charges shall be based on the Customer's net energy for the billing period, to the extent that the net energy exceeds zero. To the extent that a non-time of use Customer's net energy is zero or negative during the billing period, the Customer shall pay only the non-usage sensitive charges, including any applicable standby charges, of the standard Schedule. To the extent that a time-of-use Customer's net energy is zero or negative during the billing period, the Customer shall pay only the demand charge or charges, non-usage sensitive charges, and any applicable standby charges of the Standard Schedule. The Customer shall receive no compensation from the Company for Excess Generation during the billing period. The Excess Generation during the billing period shall be carried forward and credited against positive energy usage (by tiers, in the case of time-of-use customers) in subsequent billing periods

The Net Metering Period shall be defined as each successive 12 month period beginning with the first meter reading date following the date of interconnection of the renewable fuel generator with the Company's facilities. Any Excess Generation at the end of a Net Metering Period shall be carried forward to the next Net Metering Period only to the extent that the Excess Generation does not exceed the Customer's billed consumption for the current Net Metering Period, adjusted to exclude accumulated Billing Period Credits carried forward and applied from the previous Net Metering Period (recognizing tiers for time-of-use customers).

Upon written request of the Customer, the Company and the Customer shall enter into a power purchase agreement for the Customer's Excess Generation for one or more Net Metering Periods. For Net Metering Periods beginning on or after January 1, 2009, the written request of the customer must be submitted prior to the beginning of the Net Metering Period. The power purchase agreement shall be consistent with the Commission's Rules Governing Net Energy Metering (20 VAC 5-315-50 et seq.) and will obligate the Company to purchase the Customer's negative net energy for requested Net Metering Periods at a price equal to the PJM Interconnection, L.L.C. (PJM) day-ahead annual, simple average LMP (locational marginal price) or in the case of time-of-use Customers, the simple average of hourly LMP's by tiers, for the AEP Zone, as published by the PJM Market Monitoring Unit, for the most recent calendar year ending on or before the end of each Net Metering Period. The Company shall make full payment annually to the Customer within 30 days following the latter of the end of the Net Metering Period or the date of the PJM Market Monitoring Unit's publication of the previous calendar year's AEP Zone day-ahead annual, simple average LMP, or hourly LMP as appropriate.

Excess Generation is not transferable, and the Customer, absent a signed power purchase agreement as outlined above, shall receive no compensation from the Company for any Excess Generation upon termination of service from the Company, or upon the customer's choice of a qualified ESP.

RENEWABLE ENERGY CREDITS

A Customer owns any Renewable Energy Certificates associated with the total output of its Generator.

The Company is only obligated to purchase a Customer's RECs if the Customer has exercised its one-time option at the time of signing a power purchase agreement with the Company to include a provision requiring the purchase by the Company of all generated RECs over the duration of the power purchase agreement.

Payment for all whole RECs purchased by the Company during a Net Metering Period in accordance with the purchase power agreement shall be made at the same time as the payment for any Excess generation.

The Company will post a credit to the Customer's account or the Customer may elect a direct payment.

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**OPTIONAL RIDER N.M.S.
(Net Metering Service Rider)
(continued)**

RENEWABLE ENERGY CREDITS (Cont'd)

Any fractional REC remaining shall not receive immediate payment, but, may be carried forward to subsequent Net Metering Periods for the duration of the power purchase agreement.

The rate of the payment by the Company for a Customer's RECs shall be the daily unweighted average of the "CR" component of Virginia Electric and Power Company's Virginia jurisdiction Rider G tariff in effect over the period for which the rate of payment for the excess generation is determined.

SPECIAL TERMS AND CONDITIONS

This Schedule is subject to the Company's Terms and Conditions of Standard Service. The terms, conditions, fees and eligibility requirements for net metering are subject to revision, as specified in 20VAC5-315 of the Virginia Administrative Code and approved by the Virginia State Corporation Commission.

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Pursuant to Final Order

Dated: November 24, 2020, as modified and reinstated effective March 26, 2021

Case PUR-2020-00015

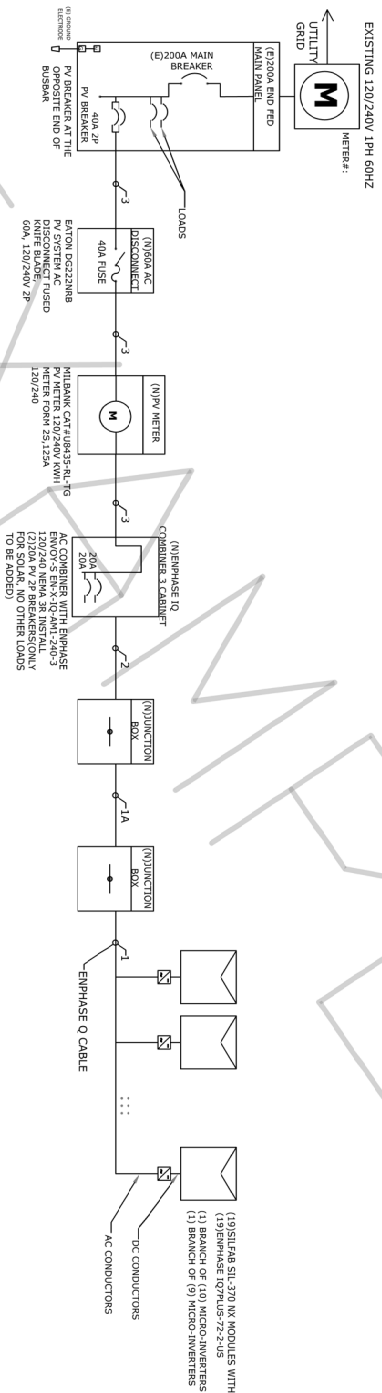
Effective: April 12, 2021

NAME: _____

EXAMPLE PROJECT ONE LINE

SINGLE LINE DIAGRAM: DC SYSTEM SIZE - 7.03kW, AC SYSTEM SIZE - 5.51kW

MICRO INVERTER SPECIFICATIONS		MODULE SPECIFICATION	
MODEL	ENPHASE IQ7PLUS-72-2-US	MODEL	SILFAB SIL-370 NX
POWER RATING	290W	MODULE POWER @ STC	370W
MAX OUTPUT CURRENT	1.21A	OPEN CIRCUIT VOLTAGE: Voc	45.69V
CEC WEIGHTED EFFICIENCY	97%	MAX POWER VOLTAGE: Vmp	37.7V
MAX NO OF MICRO INVERTERS/BRANCH	13	SHORT CIRCUIT CURRENT: Isc	10.30A
MAX DC VOLTAGE	60V	MAX POWER CURRENT: Imp	9.83A



TAG ID	CONDUIT SIZE	CONDUCTOR	NEUTRAL	GROUND
1	1 1/2" EMT	(2) 12AWG ENPHASE Q CABLE PER BRANCH CIRCUIT	NONE	(1) 12AWG ENPHASE Q CABLE
1A	FREE AIR	(4) 12/2 ROMEX WIRE	NONE	(1) 12/2 ROMEX WIRE
2	1 1/2" EMT	(4) 10AWG THHN/THWN-2	NONE	(1) 10AWG THHN/THWN-2
3	1 1/2" EMT	(2) 8AWG THHN/THWN-2	(1) 8AWG THHN/THWN-2	(1) 8AWG THHN/THWN-2

NOTE (N):
 MAIN PANEL RATING: 200A, MAIN BREAKER RATING: 200A
 120% RULE: (200X1.2)=240A=>40A=>ALLOWABLE BACKFEED IS 40A

OCPP CALCULATIONS:
 INVERTER OVERCURRENT PROTECTION =
 INVERTER O/P I X CONTINUOUS LOAD (1.25) X #OF INVERTERS
 = 1.21X1.25X19=28.74 A => PV BREAKER = 40A
 ALLOWABLE BACKFEED 40A => 40A PV BREAKER

SCALE	DATE	BY	CHKD	APP'D	REV	DESCRIPTION
1:1	10/10/2023	JT	JT	JT	1	ISSUED FOR PERMIT
1:1	10/10/2023	JT	JT	JT	2	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	3	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	4	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	5	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	6	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	7	REVISED PER COMMENTS
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1:1	10/10/2023	JT	JT	JT	27	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	28	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	29	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	30	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	31	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	32	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	33	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	34	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	35	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	36	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	37	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	38	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	39	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	40	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	41	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	42	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	43	REVISED PER COMMENTS
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1:1	10/10/2023	JT	JT	JT	56	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	57	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	58	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	59	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	60	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	61	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	62	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	63	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	64	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	65	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	66	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	67	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	68	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	69	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	70	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	71	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	72	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	73	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	74	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	75	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	76	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	77	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	78	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	79	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	80	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	81	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	82	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	83	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	84	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	85	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	86	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	87	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	88	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	89	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	90	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	91	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	92	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	93	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	94	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	95	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	96	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	97	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	98	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	99	REVISED PER COMMENTS
1:1	10/10/2023	JT	JT	JT	100	REVISED PER COMMENTS

VIRGINIA NET METERING

FREQUENTLY ASKED QUESTIONS

What is Net Metering? Net Metering was developed to encourage investment in renewable energy. It is an incentivized program available to eligible customers who operate an on-site, qualifying renewable fuel generator (such as solar panels) and wish to make some or all of their own electricity. It is not available for those that desire to make energy for sale back to their utility. Approved generators are allowed to connect to the electric grid generally via the customer's main service panel providing the customer with the ability to return any excess energy to the grid "banking" it for future use. This is particularly beneficial for solar and wind as these are intermittent power sources.

How does it work? Once a generator is approved for interconnection, Appalachian Power will install a special meter capable of measuring energy flow in both directions. As your generator produces electricity, that energy is first used to supply your own energy needs. If your generator's output will not cover your entire energy needs, Appalachian Power provides the remainder. Conversely, if your generator produces more electricity than you can use, the excess is measured at the meter and sent back to the grid to be used by other customers.

How do I apply for Net Metering? For generating equipment systems that have a capacity of 25 kW or less for residential and 3 MW or less for commercial, a Net Metering Application must be submitted. You can submit a Net Metering Application online by going to <https://aep.powerclerk.com> and registering an account with PowerClerk. A net metering informational package is also available to download at www.appalachianpower.com or by calling (800) 956-4237. The package includes the net metering tariff that defines the conditions of your electric service while interconnected as well as the 2 page Net Metering Interconnection Notification (NMIN) form. Sections 1-4 of the NMIN should be submitted in advance of installation for pre-approval. The fully completed NMIN should be re-submitted after the installation is complete for final field approval. Upon a successful final field approval, your meter will be scheduled for exchange. This process can take up to 30 days for residential and 60 days for commercial customers so please remember to leave your generator off until it is approved and the meter has been exchanged.

How will I be billed? All monthly charges will continue to be based on your standard rate schedule. However, you will only be billed for your "net" energy usage (what we delivered to you less what you put back to the grid). Any non-usage charges or minimums as stated in your standard rate schedule still apply. If you return more energy than was supplied to you in any particular billing period, the excess energy is "banked" for application towards future bills. Most customers track their own excess generation as bills currently do not display that information.

Why was my bank not applied? In any month where you have billable consumption, you will initially get a bill for that usage. Generally within 3-7 days, your account will be reviewed and re-billed to apply any "banked" energy to offset all or part of that billable usage.

How long is the "bank" available for my use? Your net metering start date is the first meter reading following meter exchange. Your account is then reviewed annually to reconcile any excess generation in accordance with Virginia regulations. Any excess generation at that time will be compared to your billed kWhs for the year plus your excess generation rolled from the previous year. Banks in excess of this total are forfeited since State regulations require you to size your generator so that it doesn't produce more energy than you can use annually.

Can I be paid instead for that excess generation? Yes, as an option, you may also request a power purchase agreement in writing prior to the beginning of any 12 month net metering period. At subsequent annual reviews, your bank will be purchased. Please be aware, however, that kWhs rolled into the next net metering period are worth our retail rate (currently about 15 cents per kWh) whereas banked kWhs are purchased at our "avoided cost" (currently \$0.03 per kWh for calendar year 2024). So sizing your system appropriately ensures you remain eligible to roll your excess generation each year and realize the maximum value for your excess energy.

How do I read my new meter? Unlike your old billing meter with a static screen, your new net meter will rotate through multiple screens. While there are several different meters being used today for net metering, all will display a screen with 08 on the left or at the bottom which shows the energy we've delivered to you and a screen with 07 on the left or at the bottom which displays the energy you've returned to the grid. You'll also see a screen that displays the 15 minute average peak demand for electricity consumed during the billing period. Some meters also show the date that peak demand occurred. You will receive a meter display guide with your paperwork after the interconnection. You may also download a copy of that guide at www.appalachianpower.com.

What if I decide to add more solar panels? You must submit a new net metering application for the added capacity and you must secure approval in advance just as you did with your initial system.

Why does my inverter show I generated more energy than your meter does? Your inverter measures the energy that you have generated while our meter only measures what you generated, couldn't use and exported to the grid.

Guide to Reading Your Net Meter with Multiple Displays

Appalachian Power uses several different types of meters for net metering. The screens of interest to you are shown below. The codes referenced may be on the left as shown below or on the bottom.

08 – Energy you've purchased from APCo



07 - Energy you put back on our grid



621 or **21** – Your highest 15 minute demand for electricity during a given billing period



721 – The date the peak demand above occurred (some meters do not have this screen)



AGRICULTURAL NET METERING OR NET METERING INTERCONNECTION NOTIFICATION

PURSUANT TO RULE 20 VAC 5-315-30 OF THE COMMISSION'S REGULATIONS GOVERNING NET ENERGY METERING, APPLICANT HEREBY GIVES NOTICE OF INTENT TO OPERATE A GENERATING FACILITY.

Customers shall initially complete Sections 1-4 and submit to the utility for review and approval prior to starting any construction or installation of the facility. Once the utility approves Sections 1-4, the customer may commence and complete installation of the facility. Upon completion of the installation, the customer shall re-submit the form with Section 5 completed.

Section 1. Applicant Information Check: Ag Net Metering; Power Purchase Agreement Name:

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number(s): _____

Fax Number: _____ Email: _____

Distribution Utility: _____ Account Number: _____

Energy Service Provider (ESP) (if different than electric distribution company): _____

ESP Account Number (if applicable): _____

Proposed Interconnection Date _____

Section 2. Generator Information (Add sheets for multiple generating units.)

Owner and/or Operator Name (if different from Applicant):

Business Relationship to Applicant: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number(s): _____

Fax Number: _____ Email: _____

Street Address of Generating Unit: _____

City: _____ State: _____ Zip Code: _____

Fuel Type: _____

Generator Manufacturer and Model: _____

Rated Capacity in kilowatts: AC _____ DC _____

Inverter Manufacturer and Model: _____

Battery Backup (circle one): Yes No

Section 3. Information for Facilities

Generator Type (circle one): Inverter Induction Synchronous

Frequency: _____ Hz; Number of phases (circle one): One Three

Rated Capacity: DC _____ kW; AC apparent _____ kVA; AC real _____ kW;

Power factor _____ %; AC voltage _____; AC amperage _____

Facility schematic and equipment layout must be attached to this form.

Section 4. Vendor Certification

The system hardware is listed by Underwriters Laboratories to be in compliance with UL 1741.

Signed (Vendor): _____ Date: _____

Name (printed): _____ Phone Number: _____

Company: _____ Email: _____

Section 5. Electrician Certification (If not electrician-installed, attach final electrical inspection.)

The system has been installed in accordance with the manufacturer's specifications as well as all applicable provisions of the National Electrical Code.

Signed (Licensed Electrician): _____ Date: _____

Name (printed): _____

License Number: _____ Phone Number: _____

Mail Address: _____

City: _____ State: _____ Zip Code: _____

Utility signature signifies only receipt of this form, in compliance with the Commission's net energy metering regulations, Regulation 20 VAC 5-315-30.

Signed (Utility Representative): _____ Date: _____

I hereby certify that, to the best of my knowledge, all of the information provided in this Notice is true and correct.

Signature of Applicant: _____ Date: _____