

# GREEN POWER PROVIDERS PROGRAM PARTICIPATION GUIDELINES

(Effective January 22, 2019)

## **GUIDELINE 1 - PROGRAM PURPOSE AND DESCRIPTION**

The purpose of the Green Power Providers program (“**Program**”) is to continue to increase the renewable energy supply in the Tennessee Valley. In addition, the Program aims to align with the green power demand and participation levels in TVA’s Green Power Switch program, while also stimulating economic growth and serving as a customer-focused solution to grid integration of small scale clean and renewable energy systems.

Distributors of TVA power (“**Distributors**”) that have entered into a Green Power Providers Agreement with TVA have the opportunity to offer the Program to their customers. A Distributor’s customer may request a Program capacity reservation by completing a Green Power Providers Capacity Reservation Request (“**Request**”) and submitting the Request via the Green Power Providers Online Application Tool. Distributor will review the Request and then submit it to TVA. Requests will go through a process (“**Process**”) for allocating available capacity.<sup>1</sup> The same Process will apply to a Distributor who wishes to install a generation system on its facility and participate in the Program as a generator. Any Request not approved by a Distributor within 90 days of initiation will expire and may be rejected by TVA. After a customer receives notification of initial Program approval, the customer will complete and submit to Distributor an interconnection application and a Green Power Providers Participation Agreement (“**Participation Agreement**”), in accordance with the Process (unless required earlier by Distributor), to become an Applicant. Distributors wishing to participate in the Program will have to complete the Green Power Providers Distributor Facility Participation Agreement in lieu of the standard Participation Agreement.<sup>2</sup>

All Applicants must be the same person(s) or entity designated on the customer’s power billing account that is associated with the single associated Billing Meter at the address of the Site. Each Applicant will be given the status of “**Participant**” upon execution of a Participation Agreement by all parties, provided such Applicant qualifies for and meets, at the time TVA executes the Participation Agreement, the then-current participation requirements. In order to retain its status as a Participant, each Applicant must install its generating system (“**Qualifying System**”) in accordance with the Participation Agreement and these Green Power Providers Program Participation Guidelines (“**Guidelines**”). Once TVA has executed the Participation Agreement, (a) the Qualifying System must be fully interconnected and operational within one hundred eighty (180) Calendar Days of TVA’s execution of the Participation Agreement, as indicated on Distributor’s Acceptance of Qualifying System form (“**System Acceptance Form**”), and (b) the Applicant must be compliant with the terms of the Participation Agreement and the Guidelines.

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<sup>1</sup> Complete information about the Request and the Process can be found on the Program’s website: <http://www.tvagreenpowerproviders.com>.

<sup>2</sup> The Green Power Providers Participation Agreement and the Green Power Providers Distributor Facility Participation Agreement will be referred to as “Participation Agreement” interchangeably herein.

## **GUIDELINE 2 - DEFINITION OF TERMS**

As used in these Guidelines, the following terms are defined as follows:

- 2.1 “2019 Calendar Year” means January 22, 2019 through December 31, 2019.
- 2.2 “Applicant” means any potentially eligible residential, commercial, or industrial customer served by Distributor (or a Distributor on its own behalf) that elects to apply for participation in the Program, after initial approval through the Process, by (a) submitting an interconnection request to Distributor (unless already submitted), and upon Distributor’s approval, entering into an Interconnection Agreement with Distributor, and (b) submitting a completed Participation Agreement for TVA’s and Distributor’s review, approval, and execution.
- 2.3 “Billing Meter” means a retail billing meter located at the Site where the Participant’s facility or dwelling is located. The Billing Meter must be fully operational and measure the billing demand and/or the energy consumed at the Site.
- 2.4 “Business Days” means all days except Saturdays, Sundays, and the weekdays that are observed by TVA as Federal holidays (which currently include New Year’s Day, Martin Luther King’s Birthday, Presidents’ Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans’ Day, Thanksgiving Day, and Christmas Day).
- 2.5 “Calendar Days” means all days in a month, including weekends and holidays.
- 2.6 “Delivery Commencement Date” means the date on which the Distributor has executed the System Acceptance Form.
- 2.7 “Generation Credit” means the accrued generation credits due to Participant, which will be calculated by applying the applicable rate as defined in Guideline 8 to the kWh energy measured on the Generation Meter.
- 2.8 “Generation Meter” means a meter, in addition to the Billing Meter at the Site, that is installed by Distributor and designed to measure the alternating current (AC) energy output from the Qualifying System at the Site. Generation Meter will mean either an Interval Generation Meter or a Non-Interval Generation Meter, or both.
- 2.9 “Interconnection Agreement” means the agreement executed by Applicant and Distributor to provide for the interconnection of the Qualifying System to Distributor’s distribution system.
- 2.10 “Interval Generation Meter” means a solid-state type meter of high quality for billing purposes that records at least clock hour (hour interval) data and measures the energy output (kWh) from the Qualifying System at the Site; however, fifteen (15) -minute interval data is preferred. Furthermore, the Participant’s applicable retail rate schedule may require a shorter interval.
- 2.11 “Non-Interval Generation Meter” means a solid-state type meter of high quality for billing purposes that measures the energy output (kWh) from the Qualifying System at the Site but does not meet the definition of Interval Generation Meter.

2.12 “Premium Rate” has the meaning set forth in Guideline 8.

2.13 “Site” means Participant’s residential, commercial, or industrial real estate and associated personal property to which the Qualifying System is connected, the address of which is identified under the Participant’s power billing account. In addition, the Site must meet all of the following requirements:

- (a) The property must receive its retail electricity distribution services from Distributor at the location of the Qualifying System;
- (b) The Qualifying System must be located on the same premises of Participant, where the Participant’s own electrical load is located;
- (c) A maximum of 50 kW per contiguous property per Participant and/or Owner of the Qualifying System is permitted, subject to Guideline 3 below. Furthermore, the capacity of an existing system at the Site, with an effective participation agreement under the Generation Partners pilot (Pilot) or this Program, will be included in determining the maximum capacity referred to under this subsection 2.13(c);
- (d) A maximum of 50 kW per associated Billing Meter account at the Site is permitted, subject to Guideline 3 below;
- (e) The Qualifying System must have a minimum nameplate capacity greater than or equal to .50 kW; and
- (f) Participant and the Qualifying System must meet the requirements set forth in the Participation Agreement and these Guidelines.

### **GUIDELINE 3 - CUSTOMER ELIGIBILITY AND LOAD REQUIREMENTS**

#### **3.1 Existing Distributor Customers**

- (a) Existing Distributor customers must have at least twelve (12) months of historical energy usage (kWh) data from the Site during the most recent previous 12-month period.
- (b) The primary purpose of the Applicant’s facility cannot be energy generation.
- (c) Qualifying Systems with a nameplate capacity of up to 10 kW (DC for inverter-based systems, AC for non-inverter-based systems) are deemed “fast track” projects and will not require a distribution system impact study.
- (d) All project Sites must have a minimum annual usage of at least 1,000 kWh as recorded by the single associated Billing Meter at the Site. Additionally, the Qualifying System’s nameplate capacity (“**Maximum Capacity**”) is limited to the lesser of (i) 50 kW or (ii) the kW capacity that is designed to annually generate no more than 100% of the Site’s historical annual usage in kWh, as recorded by the associated Billing

Meter at the Site.<sup>3</sup>

- (e) A Participant's Site will not qualify for participation in the Program if the Participant has a currently effective Participation Agreement under the Program or the Pilot with a capacity that either exceeds (i) 50 kW or (ii) the kW capacity that is designed to annually generate more than 100% of the Site's annual usage in kWh, as recorded by the associated Billing Meter at the Site.

### 3.2 New Distributor Customers/New Construction

Provided Distributor agrees to offer the Program to its eligible customers or "new construction" market, and subject to the Program's terms and conditions, the following will apply:

- (a) For prospective new and existing customers without twelve (12) full months of historical usage, the Applicant for new construction projects must submit acceptable and reasonable annual electrical usage projections for its residential or commercial/industrial facility.
- (b) For new construction projects, the Applicant must submit a Request for initial approval through the online Process. Upon capacity approval, the Applicant must complete and submit the online New Construction Request to its Distributor for acceptance of its potential Qualifying System(s) into the Program. It is at Distributor's and TVA's discretion to approve or reject any submitted New Construction Request.
- (c) The Applicant may receive a Program letter of intent ("**LOI**") from Distributor and TVA, which guarantees the Applicant's Qualifying System acceptance into the Program against the annual capacity limit, provided that (i) Distributor approves and allows for acceptance of new construction projects in the Program, (ii) the Qualifying System meets the eligibility requirements for the Program, and (iii) there is available capacity for the Program in the given year.
- (d) The LOI is contingent upon an official Participation Agreement being fully executed by the Participant, Qualifying System Owner (if different than the Participant), Distributor, and TVA within one hundred eighty (180) Calendar Days from the date of the LOI. Upon completion of a fully executed Participation Agreement, the Participant/Applicant must satisfy all of the requirements of the Participation Agreement and the Guidelines, including establishing and maintaining a permanent billing account with Distributor and having the Qualifying System interconnected and fully operational within one hundred eighty (180) Calendar Days after TVA's execution of the Participation Agreement. The total project completion period (LOI and Participation Agreement) will not exceed three hundred sixty (360) Calendar Days. The Participant will receive the applicable Generation Credit associated with

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<sup>3</sup> A Site with multiple Billing Meters is limited to one "fast track" Qualifying System, unless otherwise approved by TVA after reviewing the load or energy usage requirements for each Billing Meter to which any additional "fast track" system is proposed to be connected.

the calendar year in which the Request is initiated. For existing customers without twelve (12) full months of electrical usage history, Applicant must provide Distributor with its projected annual usage (kWh), in addition to the proposed nameplate capacity of the Qualifying System.

- (e) The proposed nameplate capacity of the Qualifying System will be subject to projected Site energy usage requirements. In this case, the Qualifying System's proposed nameplate capacity is limited to the lesser of (i) 50 kW or (ii) the kW capacity that is designed to annually generate no more than 100% of the Applicant's/Participant's projected annual usage in kWh.

As provided in this Guideline 3.2, the annual generation (kWh) projections for the Qualifying System must be provided to Distributor by an Applicant, or by any existing Participant with a nameplate capacity of 10 kW or less and who wishes to increase its Qualifying System's nameplate capacity to be above 10 kW. This Applicant or Participant must submit a professional estimate for expected generation, if available, which will be reviewed and subject to approval by Distributor and TVA. The following default annual capacity factor percentages (%) will be used to determine the maximum nameplate capacity (kW) of any new or expanding Qualifying System.

- Solar PV – 15%
- Wind – 15%
- Low-Impact Hydropower – 50%
- Biomass – 70%

**Example:** A small commercial business' projected annual usage is 30,000 kWh on a single Billing Meter and it wishes to install a solar PV project in the Program. The maximum nameplate capacity for this business would be 23 kW DC since it would likely generate no more than 100% of the customer's annual usage on the single Billing Meter.

Solar PV Generation Example Default Calculation:

23 kW X 8,760 hours X 15% Annual Capacity Factor = 30,222 kWh  
(round maximum kW to the nearest whole number)

**GUIDELINE 4 - ELIGIBLE RENEWABLE TECHNOLOGIES**

Participant must be able to demonstrate, on an ongoing basis, that the Qualifying System generates electricity from one of the resources ("**Qualifying Resources**") included below:

- (a) Solar Photovoltaic (PV): Monocrystalline panels, polycrystalline panels, or thin film cells using fixed or single/dual axis tracking systems, which can be ground- or structure-mounted.
- (b) Wind: Turbines in conventional sizes for commercial-scale generation.
- (c) Low-Impact Hydropower: From new generation capacity on a non-impoundment or new generation capacity on an existing impoundment. Such generation must be located in the Cumberland River watershed or in the Mississippi River. Hydro generation could be located in the Tennessee River watershed only if TVA were to issue a permit under section 26a of the TVA Act. Additionally, such generation

- must meet one or more of the following conditions prior to requesting participation in the Program: (i) the hydropower facility is certified by the Low Impact Hydropower Institute, or (ii) the facility is a run-of-the river hydropower facility with a total rated nameplate capacity equal to 50 kW or less<sup>4</sup>, or (iii) the hydropower facility consists of a turbine in a pipeline or a turbine in an irrigation canal. Furthermore, such generation must also meet any applicable Federal Energy Regulatory Commission requirements.
- (d) Biomass: Solid, liquid, or gaseous form of renewable biomass that is produced from the following fuels in a manner that complies with applicable law: (i) all wood waste including “black liquor” from pulp and paper processing, mill residues, industrial waste wood, and waste wood from woodworking or wood processing, so long as the wood is not chemically treated or coated; (ii) all agricultural crops or waste; (iii) all animal and other organic waste; (iv) all energy crops; and (v) landfill gas and wastewater methane.
- Biomass resources excluded from eligibility include:
    - (1) wood that has been coated with paints, plastics, or Formica;
    - (2) wood that has been treated for preservation with materials containing halogens (such as chlorine or other halide compounds) or arsenic (such as CCA or chromated copper arsenate);
    - (3) municipal solid waste; and
    - (4) bio-diesel.

#### **GUIDELINE 5 - PROGRAM RESTRICTIONS**

No Qualifying System may be installed for commercial businesses no longer in operation; on billboards; light poles; cable, communication, or internet boxes; recreational vehicles; or mobile commercial/industrial facilities.

#### **GUIDELINE 6 - PROCESS AND PROCEDURES**

The Process for participation in the Program is as follows:

- (a) Distributor customer consults with Distributor about participation in the Program.
- (b) After reviewing these Guidelines, the customer completes a Request for a capacity reservation and submits that Request to Distributor through the Green Power Providers Online Application Tool.
- (c) After Request approval, the customer applies for Program participation by submitting to Distributor: (i) an interconnection request, if required, including any fees (e.g. interconnection request fees, application fees, or other applicable fees), (ii) a completed Participation Agreement request, and (iii) a Program application fee, thereby becoming an Applicant. Except as otherwise agreed to by TVA, any changes that deviate from the original Request submitted under section (b) above, and approved by TVA in this section (c), will require a new Request, subject to capacity being available at the time of said new Request. In the event the Generation Credit formula is determined by the Program enrollment date, the Request initiation date will be determinative.

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<sup>4</sup> Multiple turbines will not be counted separately and will not amount to more than the permitted nameplate capacity.

- (d) Participant purchases and installs the Qualifying System. Within one hundred eighty (180) Calendar Days of the date of TVA’s execution of the Participation Agreement, the Qualifying System must be fully operational and Participant must provide to Distributor the total project investment cost of the Qualifying System. In addition, Participants who install solar photovoltaic (PV) systems must provide the documentation described in Guideline 10 to verify that the PV system was installed by qualified installers.
- (e) Participant’s Qualifying System begins generation and Participant receives monthly credits for the renewable generation in accordance with the Participation Agreement.

**GUIDELINE 7 - PROGRAM INCENTIVES**

Eligible Participants will receive monthly Generation Credits.

**GUIDELINE 8 – GENERATION CREDIT RATE**

The Participant’s monthly Generation Credits will be based on the calendar year in which the Request is initiated. For the 2019 Calendar Year, the Generation Credit rate is applicable to Requests initiated January 22, 2019 through December 31, 2019. In order to receive the Generation Credits, the Qualifying System(s) must be completed, installed, and generating at full capacity within 180 Calendar Days from the date TVA executes the Participation Agreement.

Renewable Resource	2019 Generation Credit Rate Per kWh
<b>Solar, Wind, Biomass, and Hydro</b>	<ul style="list-style-type: none"> <li>9.00¢ (residential (RS) or deemed to be GSA1 for commercial and industrial) for systems 10kW or less</li> <li>7.50¢ (residential (RS) or deemed to be GSA1 for commercial and industrial) for systems larger than 10kW</li> <li>7.50¢ for all other commercial and industrial rates (ex. GSA2, GSA3)</li> </ul>

In order to provide a sustainable, steady, and transparent path for small scale renewable generation, as well as to align power purchases with Green Power Switch demand, TVA will review the Program annually and will endeavor to publish revised Guidelines on the Program’s website one (1) month prior to changing the Generation Credit rate. TVA reserves the right to change the projected rates for future Participation Agreements, and Applicants and Participants assume the risk of TVA establishing differing rates when TVA revises these Guidelines for future years. Such changes will not affect fully executed Participation Agreements. No Premium Rate will be available in the 2019 Calendar Year.

**Example:** A solar project is installed and completed by a Participant in accordance with the Participation Agreement and Guidelines. According to the 2019 Generation Credit rate above, the Participant may receive the rate/kWh for the duration of the Participation Agreement from the Delivery Commencement Date. TVA will pay the applicable rates as set out in this Guideline 8. All environmental attributes, such as Renewable Energy

Credits, are purchased by TVA for the term of the Participation Agreement.

#### **GUIDELINE 9 - BILLING AND INCENTIVE DISTRIBUTION**

As stated in the Participation Agreement, Distributors will administer any Generation Credits due to Participants<sup>5</sup>. Distributor will issue the total Generation Credit and apply it to the Participant's monthly electric power bill.

#### **GUIDELINE 10 - INSTALLERS**

For Participation Agreements executed by TVA in the 2019 Calendar Year, all solar photovoltaic (PV) systems must be designed, inspected, and approved by installers who have completed at least one of the following requirements:

- (a) Installers must have completed the North American Board of Certified Energy Practitioners (NABCEP) Associate Level Program; or,
- (b) Installers must have completed the requirements and standards of the NABCEP to become a Certified Professional PV Installer.

As part of the initial application for interconnection, qualified installers must submit either a copy of their Achievement Award or NABCEP Certificate to the Distributor. A list of qualified NABCEP installers is posted at [www.nabcep.org](http://www.nabcep.org).

#### **GUIDELINE 11 - QUALIFYING SYSTEM CAPACITY MODIFICATIONS**

If a Participant wishes to increase its Qualifying System's approved nameplate capacity, the Participant must complete a Request and submit it to Distributor and TVA via the Green Power Providers Online Application Tool for initial approval through the Process. Upon capacity approval, Participant must complete a Request to Amend Participation Agreement to Modify Capacity of Qualifying System, submit it to the Distributor and TVA for review, and obtain the approval of both Distributor and TVA prior to making any modifications to the system. A Request to decrease the nameplate capacity of existing Qualifying System(s) does not require initial approval through the Process; instead, completing a Request to Amend Participation Agreement to Modify Capacity of Qualifying System and submitting it to Distributor and TVA for review/approval prior to making any modifications to the system is sufficient.

Additionally, any requested increases in nameplate capacity, if approved, must be completed and the entire modified Qualifying System must be fully operational and interconnected within one hundred eighty (180) Calendar Days of TVA's execution of a Request to Amend Participation Agreement to Modify Capacity of Qualifying System. Additionally, the Participant is responsible for any associated expenses incurred due to said capacity increase or decrease, such as Site inspections, reviews, and processing. TVA will perform periodic audits of the generation submitted to TVA by Distributor. Upon review of the generation, TVA and Distributor may determine that a Site visit is necessary. If an audit or Site visit reveals unauthorized increases to the nameplate capacity of a Qualifying System, said unauthorized increases may result in any or all of the following: (i) change to or suspension of Generation Credits, (ii) reimbursement due to Distributor/TVA for Generation Credits received for excess capacity, and/or (iii) termination of the Participation Agreement.

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<sup>5</sup> Please note that there will no longer be a one-time \$1,000 rebate incentive for Participants.



## **GUIDELINE 12 - ANNUAL PROGRAM PARTICIPATION LIMITS**

TVA will conduct an annual Program evaluation and will set annual MW limits that provide sustainable growth of renewable capacity in alignment with the Green Power Switch program participation and demand as well as TVA's Integrated Resource Plan. The Program participation limit for the 2019 Calendar Year is 7.5 MW.

As Participation Agreement requests are approved and projects completed, TVA will publish the progress toward the annual MW limit on the Program's website.

<b>Calendar Year</b>	<b>Market Segment</b>	<b>Capacity Amount (MW)</b>
<b>2019</b>	Residential (RS),GSA1, Other Commercial & Industrial	7.5

The capacity reservation amounts and the total Program limits will be reviewed and adjusted annually, as appropriate, to reflect Program participation and market conditions. The currently effective Program limits and reservations outlined in the table above may be adjusted upon thirty (30) Calendar Days' written notice to Distributor.

Once a Distributor and a Participant have signed a Participation Agreement request and have presented it to TVA for review and execution, TVA will be under no obligation to execute said Participation Agreement if it does not conform to the requirements set forth in the Participation Agreement and Guidelines, notwithstanding any actions taken and expenses incurred to date by the Applicant and Distributor.

## **GUIDELINE 13 - TRUST/POWER OF ATTORNEY/LEGAL DOCUMENT**

When a Participant or Qualifying System Owner represents that there is a legal document relevant to the terms of the Participation Agreement, the Participant or Qualifying System Owner must provide the Distributor with the original legal document. Distributor will then make a copy of said legal document and attach it to the Participation Agreement. TVA's decision on the legal effect of said legal document will be controlling.

## **GUIDELINE 14 – PARTICIPANT'S DEATH OR INCAPACITY**

Upon Participant's death or incapacity, if Participant's estate executor, conservator, attorney in fact, or court ordered agent ("**Agent**") wishes to continue the terms and conditions of the Participation Agreement and Guidelines, Agent must complete the Request to Amend Participation Agreement by Changing Participant and/or Qualifying System Owner and forward it to Distributor and TVA for review and execution. Otherwise, the Participation Agreement will be terminated and any new owner of the Site must reapply for Program participation in accordance with the then-current Participation Agreement and Guidelines.

## **GUIDELINE 15 - GUIDELINES CHANGES**

These Guidelines continue in effect until modified or replaced by TVA upon thirty (30) Calendar Days' written notice to all Distributors participating in the Program. Said

notice will be deemed properly given if provided electronically either by electronic mail or by posting electronically on a computer-based information system designated by TVA for such purpose. In the event of a conflict between these Guidelines, the Green Power Providers Agreement, a Participation Agreement, or any other contract executed by TVA, the Green Power Providers Agreement will govern. In the event of a conflict between these Guidelines and any former version of the Guidelines (including a version of the Guidelines that was in effect at the time any contract was signed), these Guidelines, as amended, will govern. TVA will publish any changes or modifications to the Guidelines online on the Program's website.