Program Guide for Solar Electric Allies

Developed by Energy Trust of Oregon

V 5

Table of Contents

Revisions

Energy Trust updates this Program Guide periodically. Revisions from the previous version are summarized in the table, below.

Version 5 January, 2012 Revisions

Section	Revision
All	Reorganized the Program Guide into three parts for inclusion of new design ally and to separate parts addressed at design and trade allies.
Part 1	Addresses Guides applicable to both design and trade allies
Part 2	Addresses Guides applicable to trade allies only. Minor text changes to change numbering. Updates to verification (formerly “inspection”) process and random verification qualification requirements.
Part 3	Addresses Guides applicable to design allies only. All new text.
Appendix A	New Forms added: Form 205P, Form 271DE-PV, Preliminary Incentive Reservation letter.

Part 1. General Guide for all Solar Electric Allies

1.1 Introduction

1.1.1 Purpose of the Program Guide

This Program Guide provides an overview of Energy Trust's Solar Electric Program (also referred to as the “Program”) requirements, processes, and policies. In this Program Guide, the term "trade ally" means an approved Solar Electric Program trade ally; the term “design ally” means an approved Solar Electric Program design ally. Solar Electric trade allies and design allies are collectively referred to as Solar Electric Allies. All approved Solar Electric Allies are required to read and understand the entire Program Guide and to comply with the applicable portions as a condition of their agreement with Energy Trust. ***Part 1*** of the Guide applies to all Solar Electric Allies, ***Part 2*** applies to trade allies, and ***Part 3*** applies to design allies.

1.1.2 Revisions to the Program Guide

This Program Guide undergoes occasional revisions as policies and processes change. When changes are made, a new version of the Guide will be issued and posted to the solar trade ally pages on the Energy Trust website at energytrust.org. Energy Trust will also typically announce any new versions in the INSIDER—a monthly newsletter distributed by Energy Trust electronically to all active Energy Trust allies. Solar Electric Allies should check Energy Trust’s website on a regular basis to ensure they are using the current version of the Program Guide.

1.2 Program Overview

1.2.1 Energy Trust

Since 1999, the Oregon legislature has required Portland General Electric (PGE) and Pacific Power to collect "public purpose funds" from their Oregon customers to support energy conservation, renewable energy and energy market transformation efforts. The Oregon Public Utility Commission ("OPUC") was authorized to direct the manner in which the collected funds would be spent.

Energy Trust, a 501(c)(3) non-profit, was formed to manage the investment of the bulk of these funds in energy efficiency, renewable energy and energy market transformation pursuant to a grant agreement with the OPUC. Energy Trust expects all Solar Electric Allies to be generally aware of the background and history of Energy Trust and the Program, and to review the Energy Trust policies which can affect the Program's requirements.

More details on Energy Trust's history, mission, programs, and policies, as well as a copy of Energy Trust's grant agreement with the OPUC, by-laws, and strategic plan, are posted on the website. Please contact Energy Trust with questions.

1.2.2 Program purpose and design

The Solar Electric Program is one of Energy Trust's renewable energy offerings. Solar energy has the potential to be Oregon's greatest source of renewable energy generation. Its availability throughout the state offers the advantage of distributed generation by producing power at the point of use.

In order to develop the solar market across all sectors and gain long-term solar electricity generation to benefit the customers of PGE and Pacific Power in Oregon, Energy Trust has structured the Program to address the primary market barriers of cost, quality and awareness.

Energy Trust provides:

- cash incentives to eligible Program participants to reduce the above market costs associated with installing solar
- minimum installation standards for systems applying for Program incentives to help promote system performance and longevity
- a network of design firms and trade ally installers who are familiar with the Program requirements
- industry support in the form of training and cooperative marketing assistance for active trade allies
- consumer outreach and education to help inform Oregonians about their solar options

1.3 Policy Overview

Complete copies of all of Energy Trust's Board of Director-approved policies are available for review in the "Library" on the Energy Trust website. The following is an overview of some of the policies that directly affect the Program and that Solar Electric Allies should be aware of:

1.3.1 Confidentiality of Program participant information

Solar Electric Allies are obligated to maintain the confidentiality of all information submitted by Program participants under the Program.

1.3.2 Renewable Energy Certificates (RECs)[1]

Energy Trust must receive a portion of the Renewable Energy Certificates associated with the renewable energy projects that Energy Trust funds. Based upon an anticipated 20-year solar electric system operating life, the Program calculates a Renewable Energy Certificate ownership arrangement for the sizes of systems that the Program provides funding to in relation to the incentive amount it will provide for a system. This is reflected in the language included in the terms and conditions of our incentive applications regarding "Environmental Attributes."

1.3.3 Above-market cost

Energy Trust is limited to providing funding for all or a portion of the "above-market costs of new renewable energy resources." Energy Trust developed a policy outlining an approach and methodology for determining a project's above-market costs. The incentives that Energy Trust makes available through the Program for solar electric systems are calculated by Energy Trust in accordance with this policy's requirements.

1.3.4 Self-direction

If a site is certified for self-direction2 by the Oregon Department of Energy (ODOE), that “self-director” may receive self-direct credits from ODOE in exchange for purchasing RECs or green power for its site, or for directly investing in an ODOE-certified renewable energy project at its site. The self-director may then use these credits to reduce the renewable energy portion of the 3% public purpose charge included in its electric bill. If a Program participant is currently self-directing, or decides to in the future, it can affect the amount of incentive funding they will be eligible to receive from the Program.

1.4 Program Incentive Offerings

1.4.1 Energy Trust solar electric incentives

Program incentives are paid in a lump sum to lower the initial cost of systems. For simplicity, the Program offers standard incentive rates based on rated DC power capacity of the photovoltaic array. The rates are set in consideration of many factors, such as system costs, project type, available tax credits, market demand and available

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[1]"RECs" represent the environmental attributes associated with 1 MWh of electricity generated by a renewable energy resource (such as a solar electric system). RECs are generated by a renewable energy resource concurrently with the electricity generated by that resource and may be traded, separately from the electricity, to businesses and utilities who want to purchase/support renewable energy.

[2] Under the OPUC grant agreement, Energy Trust receives and invests a portion of the funds generated by the 3% public purpose charge collected from certain PGE and Pacific Power. Although payment of the public purpose charge is generally mandatory, Oregon law recognizes a special group of large electric energy users (those using over one average megawatt a year at a site) who can "self-direct" a portion of their public purpose charge to fund electric energy efficiency and renewable energy investments at their own sites.

budget. They are also based on an expectation that each solar electric system will remain operational for at least 20 years.

The funds Energy Trust receives from PGE and Pacific Power ratepayers are managed separately. As a result, solar electric incentive rates and maximum incentive amounts may be different for PGE and Pacific Power customers. Energy Trust strives to set incentive levels to manage consumer demand such that the Program can continue to accept new project applications throughout the year; however, incentive funding is always subject to availability and the incentive budget for one utility may be exhausted before the incentive budget for the other utility.

Current Program incentive rates for residential, business and public/nonprofit projects can be found on the Energy Trust website. Incentive rates are subject to change. Incentive reservations for qualifying projects are subject to funding availability and processed on a first-come, first served basis.

1.5 Project Eligibility

1.5.1 Pre-Screening for project eligibility

Solar Electric Allies are required to perform some initial project pre-screening to help determine whether or not a solar electric project is eligible to apply for Program incentives. Final determination of eligibility for Program participation and incentives always rests with Energy Trust.

1.5.1.1 *Electric utility*

In order to be eligible for Energy Trust incentives, the solar electric system must be located on real property and must be grid-tied to a PGE or Pacific Power electric utility account. Floating homes with electric utility service are considered real property. RVs, sailboats or other portable applications are not allowed.

1.5.1.2 *Add-ons and expansions*

Customers adding capacity to existing solar electric installations are eligible to apply for Program incentives if either (i) PV modules are added to an existing system that received an Energy Trust incentive, or (ii) an entirely new system is installed separate from the existing system. In both cases the expansion will be required to meet Energy Trust's ***Solar Electric Installation Requirements*** (see ***Section 2.2***), and the total incentive for which the customer may apply, *<u>including</u>* the amount of any Energy Trust incentive previously provided for a system at the site, may not exceed any maximum incentive caps established by the Program.

1.5.1.3 *Acceptable solar resource*

Solar resource assessments evaluate the impact of shading and array tilt and orientation on the annual production of the solar electric system. Energy Trust requires the entire site where the array(s) will be located to have a Total Solar Resource Fraction (TSRF) of 75% or greater in order to be eligible for Program incentives.

To demonstrate compliance with the TSRF requirements, Solar Electric Allies must submit, as part of the incentive application packet, a shade evaluation ("sun chart") for the location on the array(s) where the shading is greatest.

NOTE: Solar Electric Allies should strive to be as accurate as possible during the solar resource assessment. If, upon verification, an installed project does not meet the TSRF requirement it can void the project's eligibility for Energy Trust incentive funding. For this reason, Program staff strongly recommends that if a solar resource estimate is dependent on a project owner addressing any issues with trees or other shading barriers at the site property, that such impacts be remedied prior to moving forward with any installation.

- *Acceptable shade evaluation methods:*

  Solar Electric Allies may submit a sun chart developed for Energy Trust by University of Oregon's Solar Radiation Monitoring Laboratory — available for download and use from the Energy Trust website— or the output from an approved site analysis tool. A list of currently approved site analysis tools and instructions on displaying the required information is also available on the website.

- *Tilt and Orientation Factor (TOF):*

  TOF is the percent of energy resource available after factoring in losses due to sub-optimal tilt and/or orientation of the array. TOF values vary by location, and are included on the Energy Trust sun charts and listed on the Energy Trust website.

  At sites with multiple arrays mounted at different tilts and/or orientations, Solar Electric Allies should use the lowest TOF value when calculating the TSRF, as described below.

- *Total Solar Resource Fraction (TSRF):*

  TSRF estimates the combined effect of shading, tilt and orientation on a system's performance. The TSRF calculation must reflect the worst location on the array(s)—the location with the most shading and lowest TOF value—and be 75% or greater in order to be eligible for Program incentives.

Shading	=	100% - annual loss caused by shading
TOF	=	100% - loss due to sub-optimal tilt and orientation
TSRF	=	Shading x TOF
TSRF	≥	75%

1.5.2 Determining type of project

Solar Electric Allies will need to determine the type of project in order to (i) identify the correct incentive rate, (ii) calculate the correct incentive estimate, (iii) identify the appropriate incentive application to submit, and (iv) determine what additional documentation, if any, will need to be included with the application. Trade allies will select the appropriate type of project below in PowerClerk® (See ***Section 2.1.2.3*** for information on PowerClerk). Design allies do not use PowerClerk, and simply need to be aware of the following requirements in order to verify that the system owner will qualify as described below.

- *Direct-Owned Residential - (Form 220R-PC)*

  The owner of the solar electric system is the homeowner.

  The power produced by the solar electric system will be net-metered to a utility account held by either the homeowner or a tenant.

- *Third Party-Owned Residential - (Form 220S-PC)*

  The system owner is an eligible third-party with a written agreement to deliver solar-generated power to the homeowner.

  The power produced by the solar electric system will be net-metered to a utility account held by either the homeowner or a tenant.

- *Direct-Owned Commercial - (Form 220C-PC)*

  The system owner is either (i) the owner of the site property, or (ii) a tenant who has received written permission from the property owner to install and operate the system at the site (requires submission of the Owner/Lessor Addendum).

  The system owner is further identified as either a for-profit business or non-profit/government/school, and incentive rates may differ depending on the categorization.

  The power produced by the solar electric system will be either net-metered to a utility account held by either the property owner or a tenant.

- Third Party-Owned Commercial - (Form 220T-PC)

  The system owner is a third party with a written agreement to deliver the solar electric system's power to a host who is either (i) the site property owner, or (ii) a tenant who has received written permission from the property owner to have the system installed and operated (requires submission of the Owner/Lessor Addendum).

  The power produced by the solar electric system will be net-metered to serve the host’s utility account.

1.5.3 Providing information to the customer

Solar Electric Allies must give customers time to read and understand the terms and conditions of any and all incentive application forms before obtaining a signature. Allies must also explain, at a minimum, the subjects listed below when providing an application to a customer for review. If a potential Program participant has questions about the incentive application or the process, have them contact the Program *before* they sign the application.

- *Solar resource information:*

  Explain TSRF and the project's solar resource compared to optimal.

- *Performance estimate:*

  Educate Program participants about the amount of energy the system should generate annually, de-rated for TSRF, so that they have a realistic expectation for performance.

- *Incentive process:*

  Explain Energy Trust's incentive rate, the incentive application and reservation process and that the system must be operational and receive final approval during the incentive reservation period. Explain who will be the recipient of the incentive payment (customer, trade ally or third party system owner, depending on the type of project – see ***Section 2.4.2*** below).

  Ensure that the customer understands that incentive rates for a project are subject to change at any time prior to reservation, and that incentive reservations for qualifying projects are subject to funding availability and processed on a first-come, first served basis. The final incentive may vary from the estimate included in the initial application depending on Energy Trust's verification of the actual system installed.

1.6 Program Contact Information

The Program requires that trade allies use PowerClerk® to submit incentive applications. Solar Electric Allies will submit all other required Program paperwork to the contact information at the bottom of the applicable Program form. Program staff prefers to receive documents via fax or electronically as attachments to email. If necessary, written documents can be delivered to Energy Trust's mailing address: Solar Electric Program, Energy Trust of Oregon, 421 SW Oak Street, Suite 300, Portland, OR 97204. Please note that all hard-copy documents received via mail or other courier will be stamped with the date they were received and a time stamp of 5:00 pm, regardless of the exact time of arrival.

- *Fax*

  The general fax number for the Program is **503-546-6863**.

- *Email*

  The general email for Program staff is **pv@energytrust.org**.

- *Phone*

  Call the number provided on your most recent incentive reservation letter or call the main Energy Trust office number at **503-493-8888** and ask for a Solar Electric Program staff member.

1.6.1 Program Communications

Unless otherwise noted, all project review, revision, and reservation communications from Program staff to Solar Electric Allies will be made by email. This helps Energy Trust respond more quickly and maintain accurate project documentation. Accordingly, Program staff prefers to receive communications from Solar Electric Allies electronically as well.

1.6.2 Questions and Feedback

It is extremely important that Solar Electric Allies have a thorough understanding of all of the Program documents, so please contact the Program immediately if there are any questions about this Program Guide for Solar Electric Allies, the Solar Electric Installation Requirements, or any other related Program document.

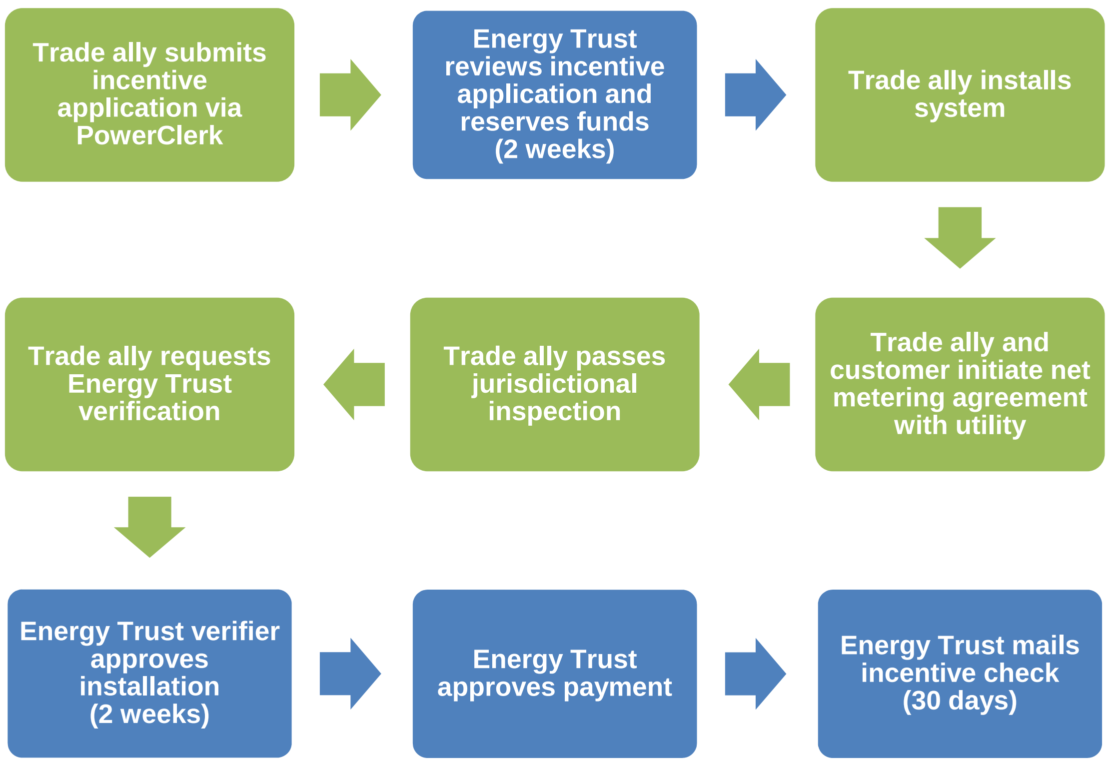
Solar Electric Allies are also welcome to participate in Energy Trust's public meetings. The Renewable Energy Advisory Council, Conservation Advisory Council and the Energy Trust Board of Directors generally meet monthly. See the Energy Trust website for more meeting schedules and agendas.

Part 2. Guide for Trade Allies

2.1 Applying for Program Incentives

Trade allies are expected to understand the Program's incentive application submission procedures, the required application paperwork, and the review and approval process to receive Program incentives. The basics steps to submit incentive applications for systems seeking Program funding are shown in the diagram below.

While there are some variances to the steps shown below for certain kinds of projects and for trade allies that have been approved for Random Verification status (see ***Section 2.3.2*** below), the fundamental process is the same.



2.1.1 Maximum number of active projects per trade ally

The number of projects a trade ally may have pending with reserved Energy Trust incentives at any one time is limited as shown in the table below. When a trade ally has the maximum number of projects pending, Energy Trust will not accept a new project application from the trade ally until after a pending project has been completed and approved.

Multiple projects at different sites for the same customer are counted separately. The limits for each project type and utility are additive.

Active project limits per trade ally

	PGE territory	Pacific Power territory	Total per trade ally
Residential	60	15	75
Commercial, government & nonprofit	15	5	20
Total per utility	75	20	95

2.1.2 Applying for incentives on behalf of customers

Incentive rates are subject to change. Incentive reservations for qualifying projects are subject to funding availability and processed on a first-come, first served basis.

2.1.2.1 *Providing information to the customer*

Trade allies must abide by the terms provided in ***Section 1.5.3*** above.

2.1.2.2 *Submitting applications on time*

To apply for and reserve funding for any solar electric system installation, the incentive application must be submitted to program staff *before* a trade ally begins installing the system. Systems installed prior to Energy Trust's receipt and approval of an incentive application will not be eligible for incentives.

Unless Energy Trust issues an incentive reservation letter following its review of an incentive application, there is no commitment by Energy Trust to reserve funding for that project. See ***Section 2.1.3*** below for details on notification of incentive reservation.

NOTE: Trade allies are expected to help their customers apply for Oregon Energy Tax Credits, if available. Oregon Department of Energy (ODOE) administers these tax credits and has very specific timing requirements for application. To review whether a customer may be eligible for Oregon Energy Tax Credits, read and follow ODOE's instructions carefully and contact them at **1-800-221-8035 or www.oregon.gov/energy** with questions.

2.1.2.3 *Submitting a complete application package using PowerClerk®*

Incentive applications are submitted to Energy Trust via the trade ally, not directly by the customer.

A complete application package includes, at minimum, the following elements:

- *Incentive application form*

  Appropriate application form for the project type, filled out in its entirety and signed by all necessary parties.

- *Solar resource assessment*

  Energy Trust sun chart or report from an approved solar resource assessment tool showing the performance impact of shading and non-ideal tilt and orientation. See ***Section 1.5.1.3*** for information on acceptable shade evaluation methods and sun charts.

- *Schematic diagram*

  Detailed system design drawing that accurately depicts all planned electrical components, plus main service panel and utility connection. Include module series/parallel wiring, conductor and ground wire types and sizing, length of wire runs, conduit types and sizing, and voltage drop calculations.

- *Layout diagram*

  Physical layout map that accurately depicts the locations of major system components, roof or installation site layout, existing renewable energy systems, and the location of the minimum Total Solar Resource Fraction claimed on the application (see ***Section 1.5.1.3***)

- *On request, Energy Trust may require additional documentation to demonstrate project eligibility and compliance with Program requirements.*

Energy Trust *will not* review any incomplete applications. Complete applications will be reviewed in the order in which they are received and must include all required application documents and be signed by all necessary parties. Because incentive funds are not reserved until Energy Trust's review is complete and an incentive reservation letter has been issued, it is imperative that trade allies ensure that all required documents are submitted together in order to avoid delays in the application review process.

Trade allies must submit applications using PowerClerk® – an online based project management and tracking system used by the Program. Trade allies are required to participate in a mandatory PowerClerk video training and will receive PowerClerk logins for designated employees after signing a PowerClerk user agreement. Additional logins may be requested by emailing PowerClerk@energytrust.org.

PowerClerk allows trade allies to enter project information through a secure web environment. Based on the inputs, the system will automatically generate a pre-filled incentive application form of the selected type ***(Direct Owned Residential -220R-PC, Third Party Owned Residential - 220S-PC, Direct Owned Commercial - 220C-PC*** *or* ***Third Party Owned Commercial - 220T-PC*)** which can then be printed, reviewed for accuracy, and signed by all parties in accordance with Program requirements.

An electronically scanned copy of the signed incentive application, along with electronic versions of all other elements of a complete application package, can be uploaded by the trade ally to the secure website. If necessary, a fax or hardcopy of those documents is also acceptable.

2.1.2.4 *Submitting an application for a project with a preliminary incentive reservation*

If trade ally is working with a system owner that has utilized a design ally to reserve preliminary incentives, trade ally must also be familiar with the processes described in ***Part 3*** of this Guide. The trade ally will work with the Program to link the incentive application submitted by trade ally to the approved ***Form 205P*** system design.

2.1.3 Energy Trust review and incentive reservation

Incentive applications must be submitted for review before a trade ally begins installing a system. The review process is intended to help protect the trade ally from purchasing equipment or doing other installation preparation work for a system or customer that may not meet Program requirements.

First, Program staff reviews the application for completeness and eligibility. Then a Verifier (see ***Section 2.3*** below for additional information) performs a technical review. The Verifier will notify Energy Trust whether the system design, as submitted, appears to meet Program requirements.

Trade allies with Random Verification status must also submit incentive applications for review (see ***Section 2.3.2*** below for information on qualifying for Random Verification).

2.1.3.1 *Timing of review process*

Energy Trust's application review process typically takes ten business days, but can take longer if the submitted incentive application is incomplete or includes incorrect information, or if there are concerns with Program eligibility or the system design.

2.1.3.2 *Incomplete and incorrect applications*

If a submitted incentive application is incomplete or requires design changes to be eligible, the trade ally will be notified and asked to submit additional information. The trade ally has thirty days from the date of notification to submit the requested information. If the requested information is not received within the thirty-day period, the Program will abandon and destroy the application and notify the trade ally and the customer.

After an application is abandoned, the trade ally would have to submit an entirely new incentive application package in order for that project to be reconsidered for an incentive.

2.1.3.3 *Notification of incentive reservation*

Once Energy Trust completes its review of the application, an ***Incentive Reservation*** letter will be sent to the system owner and trade ally. After receipt of this letter, the trade ally may move forward with system installation.

The ***Incentive Reservation*** will include the system size, estimated annual energy generation, reserved incentive amount and the reservation period. In addition to the reservation letter, the trade ally will also receive notice of any comments on the system design from the Verifier, as well as the Verifier's contact information.

2.1.3.4 *Application revisions during the reservation period*

If the system owner and trade ally make any changes to previously submitted application information during the reservation period, the trade ally must submit a completed Form 228: Solar Electric Application Revision**, and all required accompanying documentation** to Energy Trust.

The revised information must be submitted to Energy Trust for review before implementing any changes and must again go through Energy Trust's review process to determine whether or not the system is still eligible for our incentives. If changes impact the system's estimated generation or reserved incentive amount, Energy Trust will send a Revised Incentive Reservation to the trade ally and system owner.

Any changes, during an incentive reservation period, to any information provided for a system that has received an incentive reservation must be submitted for additional Energy Trust review and any revisions would be subject to eligibility requirements and funding availability at the time of the change request.

Energy Trust incentive agreements and incentive reservations cannot be assigned without Energy Trust permission. If trade ally is informed that system owner or host information may be changing, trade ally must alert Energy Trust in order to discuss the incentive agreement obligations.

2.2 Installation Requirements

All installations performed by a trade ally must meet the ***Solar Electric Installation Requirements*** in effect at the time of incentive reservation in order to be eligible for Program incentives. A copy of the ***Solar Electric Installation Requirements*** document can be found on the solar trade ally pages of the Energy Trust website. In order to qualify for incentives, installations will be reviewed by Energy Trust to verify compliance with Program requirements. See ***Section 2.3*** below for more information on Energy Trust's installation verification processes.

Energy Trust typically reviews and revises its ***Solar Electric Installation Requirements*** document annually. Trade allies wishing to comment on current requirements or suggest changes are encouraged to participate in the Program's annual revision process.

2.2.1 Timing of installation

Incentive applications must be submitted to Energy Trust *before* beginning installation. Furthermore, until Energy Trust issues an ***Incentive Reservation*** letter in response to a submitted application, there is no commitment by Energy Trust to reserve any incentive funding for that project. For this reason, Energy Trust recommends that trade allies do not begin work until an incentive reservation has been issued.

Trade allies may choose to begin construction of a project after submitting an application but before receiving notice of an incentive reservation. However, trade ally must alert the customer that any purchase of equipment or other work towards an installation before Energy Trust has notified a trade ally of incentive reservation is done at risk.

2.2.2 Required actions prior to Energy Trust's installation verification

2.2.2.1 *Net-metering with the utility*

Prior to Energy Trust's verification site visit, the trade ally and the system owner or host must initiate the net-metering process with the utility.

The system owner or host is responsible for executing the agreement for net-metering with their utility, but the trade ally is responsible for obtaining and verifying the relevant utility's current net metering requirements. While trade allies cannot complete the net-metering process for their customers, they can assist them with the process by informing them ahead of time that they will need to enter into an agreement, helping them understand the timeline in which it must be executed, and providing the appropriate contact information at their utility.

Pacific Power customer service number: (888) 221-7070

PGE customer service number: (800) 542-8818

2.2.2.2 *Jurisdictional inspections*

Trade allies must successfully pass any and all jurisdictional inspections required by the city or county where the project is located *before* the Energy Trust installation verification. Projects that cannot provide proof of passing their jurisdictional inspections at the time of Energy Trust site visit will be found not to meet Program requirements and subject to any applicable verification fees (see ***Section 2.3.1.3*** *below*).

2.2.2.3 *Contractor full system warranty*

Trade allies must provide system owner with a written warranty providing that, at a minimum, the system installation and equipment shall be free from all defects in workmanship and materials for at least two years from the date of final approved jurisdictional inspection. The warranty shall cover all labor for repairs resulting from workmanship or equipment defects.

2.2.2.4 *Customer education*

Prior to verification by Energy Trust, trade allies must instruct the system owner in the operation and maintenance of the system, including how to identify if the system is operating normally, what to do in case of poor performance, routine maintenance activities and emergency shut down and start up procedures. Trade allies must provide a customer manual that complies with the ***Solar Electric Installation Requirements***.

2.3 Energy Trust Verification Process

Energy Trust contracts with a pool of independent, third-party Solar Verifiers (each a “Verifier”) to review designed and installed solar electric systems and make recommendations as to whether or not a system is eligible to receive Program incentives.

Energy Trust's verification site visit is not a health and safety inspection, which is one reason why projects are required to pass their jurisdictional inspections first. Instead, the role of the Energy Trust Solar Verifier is to determine whether the system appears to meet Program requirements. Among other things, Energy Trust's Verifiers compare the system design to the system installed, help Energy Trust identify issues that might affect system performance or shorten the anticipated 20-year operating life, and confirm that the trade ally has provided the required customer manual.

2.3.1 Mandatory verification

Verification site visits are mandatory for all systems seeking Program incentives, unless a trade ally has been approved for Random Verification status (see ***Section 2.3.2*** below).

2.3.1.1 *Scheduling*

Energy Trust uses the PowerClerk® system to notify trade allies which Verifier has been assigned to a project. It is then the trade ally's responsibility to contact their assigned Verifier directly to schedule a site visit. Either the trade ally or their customer must be present during the Verifier's site visit. Energy Trust highly recommends that the trade ally be present at the site visit.

Trade allies must provide the Verifier with *no less than three business days* notice for cancellation or rescheduling. To reschedule a site visit, contact the Verifier directly.

2.3.1.2 *Site visit documentation*

During a required Energy Trust site visit, the Verifier will complete an ***Installation Checklist***. After completing the site visit, the Verifier will provide review comments and indicate whether the installation has been verified. Program staff will review the results and, if approved, issue a ***Installation Verified*** notice to the trade ally.

2.3.1.3 *Required installation corrections*

If the Verifier finds that the installation does not meet Program requirements, Energy Trust will notify the trade ally with an ***Installation Corrections Required*** notice. The trade ally must make all the required corrections *within thirty days of notification*. If the corrections are not made within the thirty days, the trade ally will be placed in suspension status (see ***Section 2.5.3*** below), the system owner will be notified of the unresolved corrections and, at the Program's discretion, the incentive reservation may be terminated.

Once the corrections have been made, the trade ally must contact the assigned Verifier to schedule a new site visit. In certain circumstances, and at Energy Trust's discretion, verbal or photographic verification of the changes may be allowed in place of a new site visit.

- *Repeat violations*

  If the violation(s) identified by the Verifier have been the cause of corrections required on the trade ally's previous projects, the Program may, at its discretion, place the trade ally on Program suspension (see ***Section 2.5.3*** below). If the violation is particularly egregious and/or chronic, the trade ally may be subject to termination (see ***Section 2.5.4*** below).

- *Verification fees*

  Trade allies may be required to pay for repeat site visits resulting from Program violations. Trade allies will receive prior notice that a site visit will be subject to a fee. The base fee is currently $150 per repeat site visit, but a different fee may be set with prior notification.

  If the project incentive is to be paid to a trade ally, any such verification fees will be deducted from the incentive payment.

  If the incentive payment is to be paid to a system owner or another payee, any such fees may be deducted from any incentive payments issued to the trade ally during that same week, or a subsequent incentive payment. If the trade ally has no upcoming payments, they will be invoiced for the verification fee.

2.3.2 Random verification

2.3.2.1 *Qualifying*

A site visit by a Solar Verifier is mandatory for all installed systems seeking Program incentives, unless a trade ally has been approved as qualifying for Random Verification status. Energy Trust will evaluate each trade ally's performance under the Program based upon verification results and adherence to Program requirements.

In order to be considered for Random Verification status, a trade ally must have completed at least five consecutive solar electric projects with no Program violations. It is solely Energy Trust's decision to place a trade ally on Random Verification status.

2.3.2.2 *Maintaining Random Verification status*

In order to maintain Random Verification status, the trade ally must:

- Complete a minimum of five solar electric projects with Energy Trust every year.
- Maintain at least an 80% pass rate on verifications.

A trade ally on Random Verification status that does not meet these requirements will be immediately returned to mandatory verification status, and will be responsible for scheduling site visits for subsequent projects with the assigned Verifier. Random Verification status may be subsequently reinstated at Energy Trust's discretion.

2.3.2.3 *Review and random verification process*

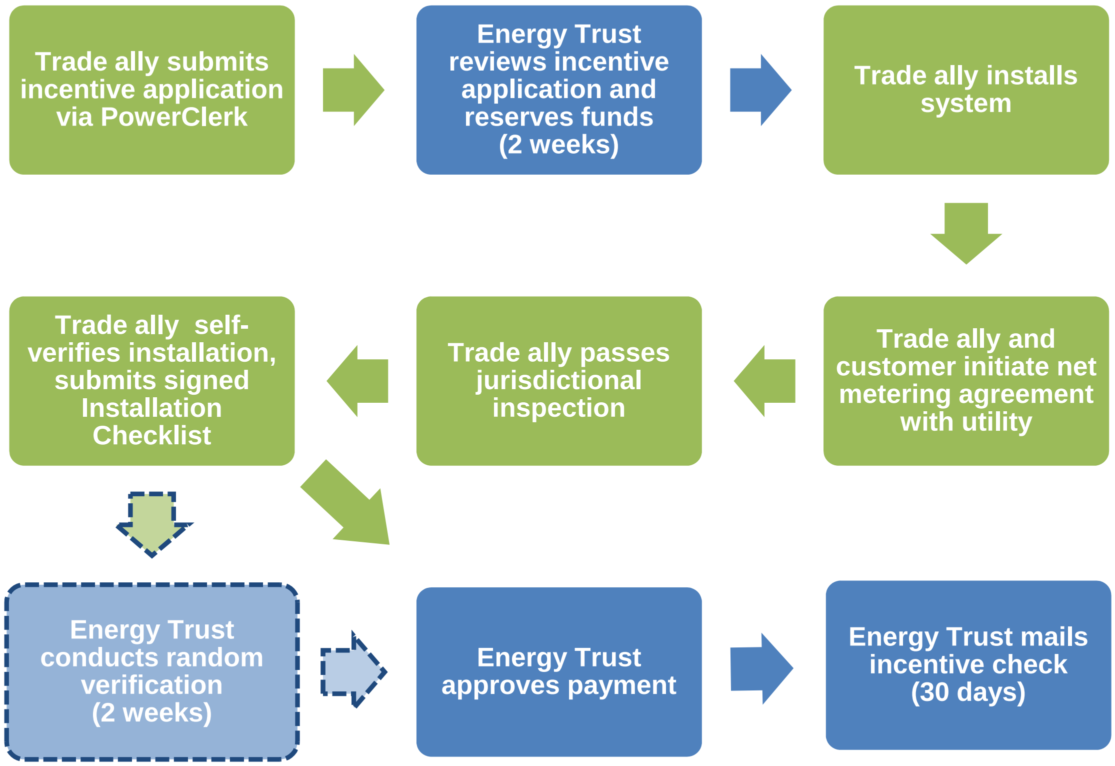
Trade allies approved for Random Verification are still required to submit incentive applications for Energy Trust's review and incentive reservation prior to beginning work on a project, though the review turn-around time is typically shorter. However, trade allies approved for Random Verification can self-verify their project and submit a signed ***Installation Checklist*** to Energy Trust after completing a project.

Energy Trust will select a portion of self-verified projects for additional verification. Program staff may select any self-verified project for an additional required, Energy Trust site visit after receipt of an ***Installation Checklist*** from the trade ally. The proportion of installations selected for random verification will depend on the trade ally's verification record and volume of projects.

If a project is not selected for random verification and is approved for payment, upon Energy Trust's receipt of the completed and signed ***Installation Checklist*** from the trade ally, the Program will issue a ***Self-Verification Approval*** notice and initiate the incentive payment for the project.

If a project is selected for a random verification site visit, Energy Trust will notify the trade ally and a Verifier of the selection. The Verifier will schedule the site visit directly with the system owner. The verification process will proceed as described in ***Sections 2.3.1.2*** and ***2.3.1.3*** above.

If a trade ally's verification approval rate falls below 80%, the trade ally will be immediately returned to mandatory verification status.



2.4 *Payment of Incentives*

Energy Trust will begin processing the incentive payment after: (i) Energy Trust receives notice from a Verifier that an installation meets all Program requirements, or (ii) after Energy Trust receives a signed ***Installation Checklist*** from a trade ally on Random Verification status, *unless* that particular project was selected for a random verification site visit.

2.4.1 Timing

Incentive payments are approved weekly, and incentive checks are typically mailed within thirty days of Energy Trust's receipt and approval of all required verification documentation.

2.4.2 Incentive payee

Incentive payments will be made to the payee indicated in the ***Payee*** section of the signed and submitted ***Form 220*** incentive agreement. The submitted application packet must include an Energy Trust ***Substitute W9*** or an IRS Form W9 for the designated payee; however, if Energy Trust has a current W9 for the payee already on file, then it is not necessary to resubmit a W9.

For direct-owned residential projects, the trade ally is the payee. Incentive payments for direct-owned residential projects are made directly to the trade ally, who is required to reduce the customer's project cost by an equivalent amount. The trade ally ***may not*** charge the full project cost and reimburse the customer with the value of the incentive after the trade ally receives the incentive payment from Energy Trust. A trade ally designated as the ***Payee*** may receive incentive payments for multiple projects in a single check. The individual project incentive amounts will be listed on the check stub.

2.4.3 Questions about status of incentive check

Energy Trust asks trade allies to wait the full thirty days before contacting the Program about the status of an incentive payment. If a trade ally discovers an overdue or missing incentive payment, they should contact Program staff to resolve the situation.

2.5 Maintaining Trade Ally Status

2.5.1 Annual Program participation requirements

In addition to complying with all terms and conditions of the trade ally agreement with Energy Trust, trade allies must do the following each calendar year to remain eligible to be a trade ally of the Program:

- Successfully apply for and obtain an Energy Trust incentive (as the trade ally contractor, not as a subcontractor) for at least one solar electric system,

  OR

- Attend a Program training session. This option is available as an alternative to installation only for two years. After two years, trade allies that do not meet the minimum installation requirement will be terminated as a trade ally.

Program training sessions are typically offered quarterly via online webinar. Check the solar trade ally pages of the Energy Trust website to learn when sessions will be offered and how to register to participate.

2.5.2 Trade ally listing on Energy Trust website

Energy Trust maintains a searchable database of all current trade allies for its various programs on its website. For Solar Electric Program trade allies, this list is broken into two categories:

(1) A short list, *the default view for website users* that *only* lists trade allies that have successfully installed at least one project through the Program during the preceding year.

(2) A long list that includes all approved trade allies.

To be added to the short list, a trade ally must successfully complete a project with the Program and then proactively contact Program staff to request that their listing be updated.

Program trade allies that do not wish to be listed on Energy Trust's website should notify the Program.

2.5.2.1 *Specialties*

Trade ally website listings may include one or more "Specialties." These Specialties reflect the sector (commercial or residential) and technology of projects a Program trade ally completed in the past year.

The Program currently includes the following Specialties for Solar Electric Program trade allies:

- *Residential solar electric*
- *Small commercial solar electric (up to 50 kW)*
- *Large commercial solar electric (over 50 kW)*

To add Specialties to a website listing, a trade ally must successfully complete a project of that Specialty with Energy Trust and notify the Program staff to update the list.

To maintain Specialty listings, a trade ally must install at least one project of a given Specialty each year. Specialties that are not demonstrated annually will be removed from the trade ally's online listing.

2.5.2.2 *Professional certifications*

In order to help eligible customers submit a Residential Energy Tax Credit (RETC) application (as discussed in ***Section 2.1.2.2***), a trade ally submitting residential solar electric applications is expected to be a Tax Credit Certified Technician[3] (TCCT) with the Oregon Department of Energy.

While the Solar Electric Program does not currently require any other professional certifications, trade allies are encouraged to obtain third-party certification, such as NABCEP (www.nabcep.org). Energy Trust may include such certifications on trade ally website listings.

2.5.3 Suspension

Certain actions may result in suspension from the Program. A trade ally will be notified in writing if they have been placed in Program suspension, and will have 30 days from the notice date to resolve the situation to the Program's satisfaction. Actions resulting in suspension may include, but are not limited to:

[3] http://www.oregon.gov/ENERGY/CONS/RES/tax/docs/solar_techs.pdf

- Failure to correct violations identified during the verification process within the 30 day timeframe
- Failure to follow a required Program process
- Chronic installation corrections or repeated violations of installation or Program requirements
- Failure to attend any required Energy Trust trainings
- Allowing insurance, licenses or other required certifications to lapse
- Failure to resolve any reasonable Program participant complaint regarding the trade ally's work under the Program
- Failure to accurately inform Program participants of current `Program requirements, including but not limited to incentive levels

2.5.3.1 *Effect of suspension*

During Program suspension, a trade ally may not submit any new incentive applications to Energy Trust, nor will Energy Trust issue any new incentive reservations for the trade ally’s projects. In addition, the suspended trade ally (i) will be removed from the searchable trade ally database on the website, (ii) is no longer authorized to use Energy Trust's logo on any materials or to represent itself as a trade ally of Energy Trust's Solar Electric Program, and (iii) is not allowed to apply for any cooperative marketing activities. Energy Trust may also impose other restrictions on the trade ally's participation in the Program. If the violations pertain to a specific project, the system owner will be notified at the time of the Program trade ally’s suspension.

Trade allies must resolve violations resulting in suspension within 30 days. Failure to do so may result in termination of Program trade ally status.

2.5.4 Termination

In addition to any other termination provisions set forth in the trade ally agreement with Energy Trust, certain actions may result in Energy Trust immediately terminating a contractor from participating as a Program trade ally. In the event of termination, the contractor will be notified by Energy Trust in writing. Actions resulting in immediate termination of trade ally status may include, but are not limited to:

- Failure to resolve any action resulting in suspension within 30 days
- Repeated Program violations
- Passing or attempting to pass any verification fee imposed on the trade ally by Energy Trust on to a customer
- Violation of license laws
- Misrepresentation of system components or installation characteristics at more than one site

- Failure to pass the full value of the Energy Trust incentive on to the customer in cases where the incentive payment is issued to the trade ally

2.5.4.1 *Effect of termination*

Effective upon notice of termination, Energy Trust will not accept any new incentive applications, will not process any submitted incentive applications that have not yet received incentive reservations, and will remove the terminated contractor from the Program's trade ally database on Energy Trust's website. Energy Trust will provide funding for any incentive applications that received incentive reservations prior to the notification of termination, provided they comply with Program requirements.

Energy Trust may, in its sole discretion, allow a terminated contractor to re-apply for participation in the Program at a later date. However, Energy Trust will most likely require additional documentation and proof from that contractor that it has taken appropriate measures to prevent further Program violations.

Part 3. Guide for Design Allies

3.1 Design Allies

The Program recognizes that in certain specific cases, systems may be in the design phase prior to the engagement of a trade ally contractor. Design allies are architecture, engineering, and/or design consulting companies that have been approved by Energy Trust as eligible to submit a ***Form 205P – Solar Electric Preliminary Incentive Application*** to the Program on behalf of eligible non-residential clients to request a preliminary incentive reservation for a qualifying project.

3.2 Eligibility for Preliminary Incentive Reservation

In order to be eligible for preliminary incentive reservation, the design ally's submitted solar electric system must meet Program requirements, and also be either:

1) A solar project to be installed as part of a new non-residential construction project that is also currently enrolled in Energy Trust's New Buildings energy efficiency program; **or**
2) A solar project to be installed at an existing building (typically non-profit or government) where the system design will inform the project owner's competitive bid process to select a trade ally contractor.

In both cases, before submitting the ***Form 205P***, the design ally must confirm that the project owner is fully committed to the purchase and installation of the designed system.

3.3 Applying for Preliminary Incentive Reservation

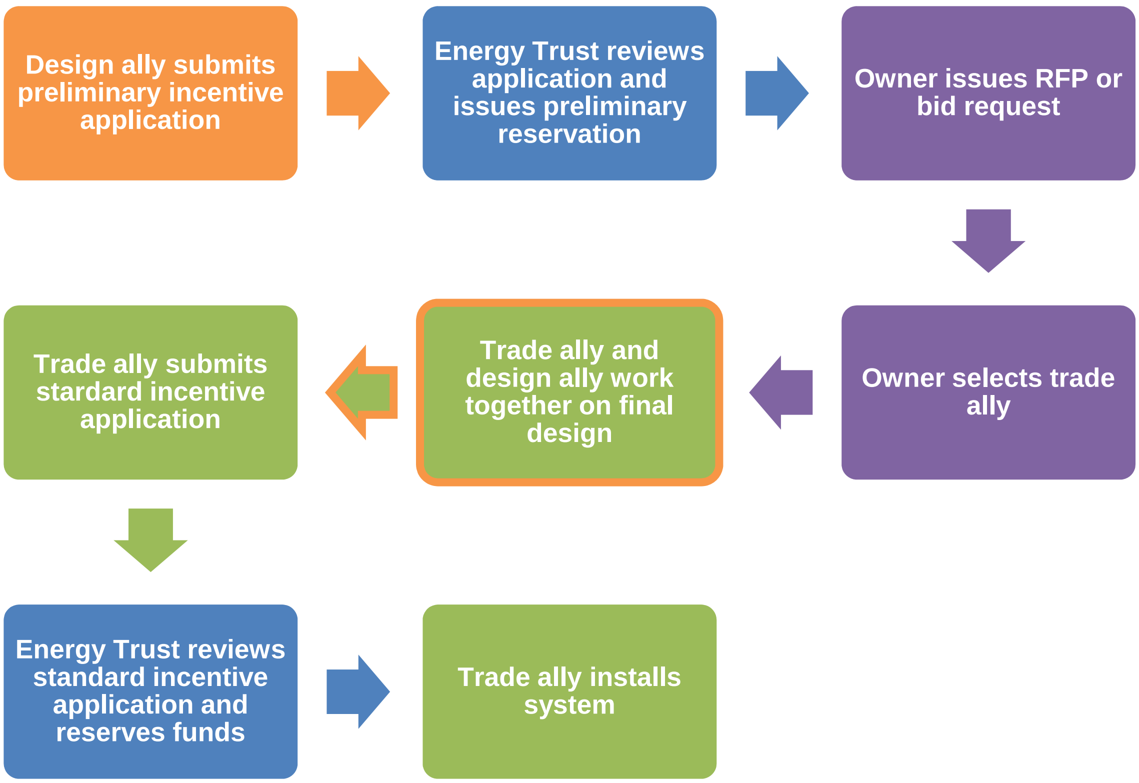
The preliminary incentive reservation is an early enhancement to the Program; however, it does not alter the Program's standard form submittal process (as described previously in ***Part 2,*** which design ally should be familiar with) once a trade ally contractor is engaged by the system owner. The basics steps outlining how the preliminary incentive reservation process works in coordination with Energy Trust's standard incentive application process are shown in the diagram at the end of this section.

The application to request a preliminary incentive reservation must be submitted to Energy Trust for review:

1) <u>*After*</u> the solar design is determined;
2) <u>*Before*</u> a trade ally has been selected; and

3) *<u>Before</u>* ordering any system equipment or otherwise beginning any installation process.

If the system owner is ready to order equipment and begin system installation activities, the incentive application must be submitted by the trade ally, not the design ally, in accordance with the Program procedures outlined in ***Part 2*** of this Guide.



3.3.1 Preliminary Incentive Reservation Application (Form 205P)

Design allies will follow the requirements described in ***Section 1.5.3*** to work with the system owner to complete and submit the ***Form 205P*** application package including, at minimum, the following elements:

- *Preliminary incentive application form*

  Form 205P: Preliminary Incentive Application Form filled out in its entirety and signed by all necessary parties.

- *Solar resource assessment*

  Energy Trust sun chart or report from an approved solar resource assessment tool showing the performance impact of shading and non-ideal tilt and orientation. See

Section 1.5.1.3 for information on acceptable shade evaluation methods and sun charts.

- *Schematic diagram*

  Detailed system design drawing that accurately depicts all planned electrical components, plus main service panel and utility connection. Include module series/parallel wiring, conductor and ground wire types and sizing, length of wire runs, conduit types and sizing, and voltage drop calculations.

- *Layout diagram*

  Physical layout map that accurately depicts the locations of major system components, roof or installation site layout, existing renewable energy systems, and the location of the minimum Total Solar Resource Fraction claimed on the application (see ***Section 1.5.1.3***)

- *On request, Energy Trust may require additional documentation to demonstrate project eligibility and compliance with Program requirements.*

The application package can be submitted to Energy Trust Program staff via e-mail at PV@energytrust.org or fax at 503.546.6863, or if the solar system is to be placed on a building or campus enrolled in Energy Trust's New Buildings Program, then the application package may be emailed or hand-delivered to the Energy Trust Outreach Manager assigned to the project.

Energy Trust *will not* review any incomplete applications. Complete applications will be reviewed in the order in which they are received and must include all required application documents and be signed by all necessary parties.

Because funds are not reserved until Energy Trust's review is complete and a preliminary incentive reservation notice has been issued, it is imperative that design allies ensure that all required documents are submitted together in order to avoid delays in the application review process. Incentives are subject to availability of funds, and preliminary incentive reservations are provided on a first-come, first served basis and incentive rates may change at any time prior to reservation.

3.3.2 Energy Trust Review and Preliminary Incentive Reservation

First, Program staff reviews the application for completeness and eligibility, and then utilizes one of its contracted Verifiers (see additional information about the role of the Verifiers in ***Section 2.3***) to perform a technical review of the designed system. Verifier will notify Energy Trust whether the system design, as submitted, appears to meet Program requirements.

3.3.2.1 *Timing of review process*

Energy Trust's application review process typically takes ten business days, but can take longer if the submitted incentive application is incomplete, includes incorrect information, is large and complex, or if there are concerns with Program eligibility or the system design.

3.3.2.2 *Incomplete and incorrect applications*

If a submitted ***Form 205P*** application is incomplete or requires design changes to be eligible, the design ally will be notified and asked to submit additional information. The design ally has thirty days from the date of notification to submit the requested information. If the requested information is not received within the thirty day period, the Program will abandon and destroy the application and notify the design ally and the project owner.

After an application is abandoned, the design ally would have to submit an entirely new ***Form 205P*** application package in order for that project to be reconsidered for a preliminary incentive reservation.

3.3.2.3 *Notification of preliminary incentive reservation*

If Energy Trust approves the submitted application for a preliminary incentive reservation, the Program will send a ***Preliminary Incentive Reservation*** notice to the system owner and design ally. The ***Preliminary Incentive Reservation*** will include the system size, expected annual energy generation, reserved incentive amount and the maximum time period that the preliminary reservation period will be in effect – the "Preliminary Reservation Period."

3.3.2.4 *Application revisions during the reservation period*

If the project owner and design ally make any changes to previously submitted **Form 205P** application information during the preliminary incentive reservation period, the design ally must submit a completed ***Form 228: Solar Electric Application Revision*** and all required accompanying documentation to Energy Trust.

The revised information must again go through Energy Trust's review process to determine whether or not the system may still eligible for incentives. If changes impact the preliminary incentive reservation, Energy Trust will send a ***Revised Preliminary Incentive Reservation*** letter to the design ally and project owner.

Any changes, during a preliminary incentive reservation period, to any *Form 205P* application information for a system that has received a preliminary reservation, must be submitted for additional Energy Trust review and any revisions would be subject to eligibility requirements and funding availability at the time of the change request.

3.3.3 Solar Electric Trade Ally Engagement

If approved for a preliminary incentive reservation, the system owner must meet two critical milestones during the preliminary incentive reservation period:

1. Select a trade ally contractor and inform such trade ally of design ally's approved ***Form 205P*** system design and of the preliminary incentive reservation; and,

2. Work with the selected trade ally to submit a ***Form 220C-PC*** or ***Form 220T-PC: Solar Electric Incentive Application*** before purchasing any equipment or beginning any other installation activities. A complete, submitted incentive application package is required in order to continue to reserve incentives for an approved system design during the trade ally's installation period.

During the preliminary reservation period, the project owner and design ally will work with the trade ally to submit the ***Form 220C-PC*** or ***Form 220T-PC*** as soon as possible in order to avoid any risk of the incentive expiration. At such time as an incentive reservation letter is provided by the Program in response to a ***Form 220C-PC or Form 220T-PC*** for the system, the previous preliminary incentive reservation period for the system shall be superseded and replaced.

Once the preliminary reservation deadline occurs, the preliminary incentive reservation automatically expires. If the project owner and design ally have not worked with a trade ally to submit the required ***Form 220C-PC*** or ***Form 220T-PC*** *before the preliminary reservation deadline*, and the project owner wishes to continue to seek Energy Trust incentives for the system; a new application must be submitted to the Program, which will be subject to the Program requirements, incentive rates, and budget availability in effect at the time of such re-submittal.

NOTE: Design allies are expected to help their customers apply for Oregon Energy Tax Credits, if available. Oregon Department of Energy (ODOE) administers these tax credits and has very specific timing requirements for application. To review whether a client may be eligible for Oregon Energy Tax Credits, read and follow ODOE's instructions carefully and contact them at **1-800-221-8035or www.oregon.gov/energy** with questions.

3.3.4 Next Steps

Design allies are expected to cooperate and coordinate with trade allies regarding the system design process to ensure compliance with Program requirements. The Program must be able to link the submitted ***Form 220C-PC*** or ***Form 220T-PC*** received from the trade ally to the system design submitted by the design ally in the ***Form 205P***. Once the project owner makes the design ally aware that the trade ally has been selected, the design ally must contact the trade ally to discuss the system design and the preliminary incentive reservation period timeframe.

Design allies should read ***Part 2*** in order to understand the role of the trade ally, standard incentive application and reservation processes, and Energy Trust's final system verification and incentive payment processes. The ***Appendix A*** provides a list of various forms and major communications used by the Program.

Part 4. Appendix A: Forms Matrix

Incentive applications are available via PowerClerk®. All other program documents are available for download on the solar trade ally pages of the Energy Trust website. Solar Electric Allies are not permitted to, in any way, alter or make revisions to the terms and conditions of any Energy Trust incentive application. If the standard incentive application is not appropriate, the Solar Electric Ally will need to contact the Program to discuss whether the project may qualify for a custom negotiated agreement.

Form Number	Form Name	Intended User	Purpose of Form
117A + 271E	Solar Electric Program Trade Ally Application	Trade Ally	Application to become a Solar Electric Trade Ally (becomes trade ally agreement once approved by Energy Trust)
271DE-PV	Solar Electric Program Design Ally Application	Design Ally	Application to become a Solar Electric Design Ally (becomes design ally agreement once approved by Energy Trust)
214	Substitute W-9	Payee	Tax identification information necessary for Energy Trust to report incentive payments to the IRS
205P	Solar Electric Preliminary Incentive Application – Commercial	Design Ally, System Owner	Project preliminary incentive application for direct-owned or third-party owned commercial solar electric systems, may be submitted by design ally for qualifying projects before a trade ally is selected
220R-PC	Solar Electric Incentive Application - Residential	Trade Ally, System Owner	Project incentive application for direct-owned residential solar electric systems (*submitted via PowerClerk®*)
220S-PC	Solar Electric Incentive Application – Third Party Owned Residential	Trade Ally, System Owner, Homeowner	Project incentive application for third party-owned residential solar electric systems (*submitted via PowerClerk®*)
220C-PC	Solar Electric Incentive Application - Commercial	Trade Ally, System Owner	Project incentive application for direct-owned commercial solar electric systems (*submitted via PowerClerk®*)

220T-PC	Solar Electric Incentive Application - Third Party Ownership	System Owner, Host, Trade Ally	Project incentive application for third party-owned commercial solar electric systems installed on host property. (*submitted via PowerClerk®*)
220E	Solar Electric Incentive Application - Electrician Self-Install	Electrician, Trade Ally	Residential incentive application for journeyman electrician or trade ally that has completed an approved PV installation course and is installing a PV system on his/her own home
228	Solar Electric Incentive Application Revision	Design Ally, Trade Ally	Form for submitting system design revisions during a project's reservation period
N/A	Preliminary Incentive Reservation letter	Solar Program Staff	Written notice of preliminary incentive reservation in response to a ***Form 205P*** application. Includes system performance estimate, reserved incentive amount and preliminary reservation period.
N/A	Revised Preliminary Incentive Reservation letter	Solar Program Staff	Written notice of a revised preliminary incentive reservation sent after receipt of a ***Form 228*** application.
N/A	Incentive Reservation letter	Solar Program Staff	Written notice of incentive reservation in response to a ***Form 220R, 220S, 220C*** or ***220T*** application. Includes system performance estimate, incentive amount and reservation period.
N/A	Revised Incentive Reservation letter	Solar Program Staff	Written notice of a revised incentive reservation sent after receipt of a ***Form 228*** application.
231	Solar Electric Installation Checklist	Verifier, (Random Verification) Trade Ally	Checklist used to verify if a project meets the ***Solar Electric Installation Requirements***
N/A	Installation Verified notice	Verifier, Solar Program Staff	Documentation that an installation has been verified by Energy Trust and is approved for incentive payment
N/A	Corrections Required notice	Verifier, Solar Program Staff	Documentation of an installation with Program violations that require corrections prior to incentive payment.