

Appendix C

Requirements for Progress Energy Authorized Specialty Installer for Solar Water Heating Pilot Program

This document defines the sequence of steps in which a company must comply to be an authorized Specialty Installer for the PEC Solar Water Heating Pilot Program.

The steps are as follows:

1. Companies must be listed on the NC Solar Center, North Carolina Directory of Renewable Energy Professionals as a Specialty Installer for Solar Water Heating in the counties and sector applicable for the business.
2. Comply with Administrative and Educational Requirements outlined in Section 1.0, Becoming a PEC Registered Solar Thermal Specialty Installer.
3. A Solar Thermal Specialty Installer may additionally be listed on an expanded NC Solar Center “Directory of Green Professionals” as a Registered Solar Thermal Contractor upon commencement of the Go Solar NC Initiative. A complete application, supporting documentation and additional testing is required by the NC Solar Center for participation in the program.

1.0 Becoming a PEC Registered Solar Thermal Specialty Installer

Under this program, there are two areas of requirements to become a PEC Registered Solar Thermal Specialty Installer primarily:

- Administrative Requirements
- Educational Requirements

Additionally, registered installers are expected to be able to provide project specific data. These requirements are listed under the:

- Project Specific Requirements

Requirements also exist regarding certification of equipment used and warranties offered to consumers by registered installers.

1.1 Administrative Requirements for Registered Solar Thermal Installers

For a company to become a Registered Solar Thermal Specialty Installer, *at least one full time employee of the installation company* must provide proof to the Progress Energy, DSM/EE approved vendor, of obtaining the following administrative requirements:

- Liability Insurance Coverage
All contractors participating in the program must provide a currently valid certificate of insurance proving at least the following coverage:
 - \$500,000 Combined Single Limit
 - Bodily Injury and Property Damage/\$500,000 General Aggregate

- **Business or contractor's license**
Business or privilege licenses are issued by the city in which the business operates and can be obtained through the city clerk. Unincorporated areas do not require a privilege license. Most businesses must also register with the North Carolina Department of Revenue. If the business will be a sole proprietorship with no employees, it may not have to be registered with the Department of Revenue; any business with employees, however, is required to register to withhold income tax from employee wages.
- **Plumbing license**
All installers, or at least one full time employee of the installer company, participating in the program must possess a valid North Carolina plumbing, heating, and fire sprinkler license. The contractor must comply with all requirements as set forth in Section 1.3.1. of this document.
- **Retail license**
A state retail license must be obtained for any business that will sell a product to the end user. Businesses with more than one business outlet must obtain a separate retail license for each location.
- **Registration with NC Industrial Commission / Workers' compensation insurance**
A business employing three or more full- or part-time employees is required by law to register with the NC Industrial Commission. Workers' compensation insurance must be carried to provide protection to those injured in on the job accidents. Employers are required to maintain insurance sufficient for the payment of compensation, or they must furnish the Industrial Commission with satisfactory proof of their ability to pay the compensation in the amount and manner due an injured employee.
- **Code of Ethics**
The participants in the development of this program are dedicated to the implementation of appropriate professional standards designed to protect consumers and the profession. Participants must sign PEC Code of Ethics or show implementation of their own Code.

1.2 Educational Requirements for Solar Thermal Registered Specialty Installer

When seeking initial classification as a Registered Solar Thermal Specialty Installer, at least one employee of the contractor company must meet *one (1)* of the following requirements (Either A, B or C):

- **Requirement Option A**
Either hold a letter from NABCEP stating they are qualified to sit for the NABCEP test, or hold a certificate verifying they have passed the NABCEP Solar Thermal test.
- **Requirement Option B (PEC, Solar Thermal Specialty Installer)**
Provide current proof of having installed at least five solar thermal systems, each system incorporating a minimum of 64 square feet (or equivalent) of collectors. The installer

must have taken a lead role in the installation of the systems. A lead role is defined as a foreman, supervisor, or site manager responsible for the quality of the installation, or an experienced person performing the trade without supervision. The solar installation must be subject to complete plumbing permit and inspection process by a permitting authority.

- **Requirement Option C (NCSC, Registered Solar Thermal Contractor)**

Provide current proof of 35 hours of solar thermal training and have installed at least two solar thermal systems—one can be in a training environment; one of the systems shall incorporate a minimum of 64 square feet (or equivalent) of collectors. The installer must have taken a lead role in the installation of the non-training systems. A lead role is defined as a foreman, supervisor, or site manager responsible for the quality of the installation, or an experienced person performing the trade without supervision. There may be present several workers who do not carry responsibility, but who are aspiring to a lead role. The solar installation must be subject to a complete plumbing permit and inspection process by a permitting authority.

After providing proof of the two installations (see below), the employee must then pass a Registered Contractor Qualifying Exam developed by the North Carolina Solar Center, based on the NABCEP task analysis for solar thermal technologies. Please note that there is a fee to take the test, and a small fee for renewal. This test will be available throughout the state at various locations; any questions please consult the Go Solar NC website (www.gosolarnc.org).

1.2.1 Documentation of System Installations

In order to document the minimum systems required under Option B or Option C, candidates are asked in the Application Form to list qualifying installed systems and provide a concise description of work performed at the job site, including the system size, a list of major components, the level of their responsibility on the jobsite, number of full-time equivalent workers supervised, and any other pertinent information.

In addition, for each system, applicants will need to provide:

- location of the job site, including some combination of the following: county, lot #, and/or physical address;
- Permit number(s) and permitting authority for any permits submitted by the contractor required to perform the work.
- system-owner contact information;
- Copies of any inspection certificates or permits involved.

The NC Solar Center, NC Government offices and NC Utilities reserve the right to contact system owners/operators, permitting authorities, and responsible contractors to verify work listed in this section. The Application Form will prompt you to attach copies of any permits or inspection certificates acquired. The Application Review Committee will make decisions about eligibility based on supplied documentation. Optional documentation includes anything that you

feel verifies the installation and demonstrates your successful role. For example, you might attach letters from customers, design plans, photos, and a letter from your employer asserting that you performed the work listed, or other documentation.

1.2.2 Registered Contractor Qualifying Exam

The Registered Contractor Qualifying Exam will be developed by the Solar Center and reviewed by a Technical Committee including representatives of the Solar Center, the ASU Energy Center, the state's utility community, the solar industry, (the plumbing and electrical boards,) a solar manufacturer, and a liaison to the NABCEP Technical Committee that maintains NABCEP's Solar Thermal Task Analysis. The exam will be offered at least four (4) times each year at different locations around the state.

1.2.3 Continuing Education and Recertification Requirements for Solar Thermal Registered Contractors

Registered Contractors which achieve NABCEP Certification must meet the ongoing continuing education and recertification requirements of NABCEP and provide evidence of their good standing each year.

For companies which have not yet achieved NABCEP certification to maintain their status as Registered Contractors, the *same employee who originally completed Educational Requirement Option C* must document the completion of at least six (6) contact hours of continuing education/training each year.

Continuing Education Credits (CEUs) from a course related to the most recent version of the NABCEP Solar Thermal Installer Task Analysis or complementary to solar thermal technology are acceptable. A contact hour equals one 60-minute clock hour of organized learning activity including interaction between learner and instructor or learner and materials which have been prepared to cause learning. The number of contact hours for the course must be specified by the provider before the course is offered. Credit is not awarded for time spent on sales presentations, breaks, travel, receptions, or meals. Continuing education courses should have Institute of Sustainable Power Quality (ISPQ) Accreditation¹ designation offered by the Interstate Renewable Energy Council (IREC), or a similar accreditation.

1.2.4 Additional Educational - Occupational Safety and Health Administration (OSHA) Construction Certification

Registered Contractors planning to work on commercial-scale systems are encouraged to complete a 10 hour OSHA Construction Certification course. An understanding of OSHA regulations and frequently cited violations can help Registered Contractors avoid citations and increase compliance with the subparts of OSHA construction regulations. To ensure full compliance with OSHA, contact the N.C. Department of Labor, Occupational Safety and Health Division, 4 W. Edenton St., Raleigh, NC, 919-807-2796 or toll free 800-NCLABOR.

¹ The ISPQ Standard specifies requirements for competency, quality systems, resources, and qualification of a curriculum against which trainers and training programs can be evaluated. Information on ISPQ is available at http://www.irecusa.org/fileadmin/user_upload/ISPQDocs/ISPQInternationalStandard_January_2006.pdf.

1.3 Project Specific Requirements

1.3.1 The following requirements are expected of registered installers and contractors on each solar thermal job.

- Provide Job Permit Number
- Provide Contractor's License Numbers
 - Board Certified Plumbing Contractor's License
 - All potential contractors must provide proof of a valid North Carolina plumbing, heating, and fire sprinkler license, as awarded by the North Carolina State Board of Examiners of Plumbing, Heating, and Fire Sprinkler Contractors (<http://www.nclicensing.org/>).
 - Board Certified Electrical Contractor's License. If required by Building Code for installation, contractors must provide proof of a valid electrical contracting license. The State Board of Examiners of Electrical Contractors (<http://www.ncbeec.org/>) is the State agency responsible for the administration and regulation of electrical contracting in North Carolina.
- Equipment Certification and Warranty Requirements
 - Under this program, collectors must meet the approved standards of the national Solar Ratings and Certification Corporation (SRCC) (<http://www.solar-rating.org>) **or** the Florida Solar Energy Center (FSEC). These standards are OG-100 (http://www.solar-rating.org/standards/OGDOCUMENTS/OG100DOCUMENT_20060901.pdf) and FSEC-GP-5-80 (<http://www.floridaenergycenter.org/en/industry/testing/STcollectors/standards/FSEC-GP-5-80.html>), respectively. Registered Contractors and Registered Installers must provide proof that the installed components meet either one of the above standards.
 - Also, Registered Contractors and Installers must warranty each system to the customer and the participating utility for a period of 12-months. The collectors must be accompanied with a warranty of at least five years.

1.4 Registered Contractor Database

The NC Solar Center will augment its current "North Carolina Directory of Renewable Energy Professionals" with the "Directory of Green Professionals" to include information on Registered Contractors who have qualified for participation in the GoSolarNC.org Initiative. The NC Solar Center will maintain the list of companies statewide who have successfully completed the requirements for Registered Contractor status and will continue to update the list to ensure compliance with continuing education and recertification requirements.

1.5 Program Administration

The North Carolina Solar Center reserves the right to charge fees for Registration of contractors (separate from training fees) commensurate with costs associated with administering the program.