



OLR RESEARCH REPORT

October 4, 2011

2011-R-0349

SOLAR ENERGY PROGRAMS AND ENTERPRISE ZONES

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You asked for a description of state programs to promote solar energy, including those created by [PA 11-80](#), particularly in enterprise zones.

SUMMARY

The Clean Energy Fund operates programs to provide rebates to residential and non-residential customers who install photovoltaic (PV) systems. It also has a rebate program for residential solar water heating systems, although this program is currently being redesigned.

PA 11-80 creates the Department of Energy and Environmental Protection (DEEP) by merging the former departments of Environmental Protection and Public Utility Control. The act also creates the Clean Energy Finance and Investment Authority (CEFIA) and a variety of renewable energy programs. The act requires CEFIA to administer the Clean Energy Fund and offer financial incentives for the purchase or lease of qualifying residential photovoltaic (PV) systems. The incentives can take the form of an up-front payment or a payment that depends on the amount of energy produced by the PV system. The act requires electric companies to seek to enter into power purchase contracts with owners or developers of generation projects that use solar energy and other zero-emission sources of power. The act also authorizes a municipal loan program and allows electric companies to build solar or other renewable generation facilities, among other things.

None of the existing programs or those created PA 11-80 are targeted to enterprise zones. However, PA 11-80 requires DEEP to determine that an equitable amount of the funding for renewable energy and energy efficiency programs be deployed among small and large customers in census tracts in which the median income is not more than 60% of the state median income, for customers whose average maximum demand is 100 kilowatts or less. Many of these tracts are located in enterprise zones. DEEP must determine what counts as an equitable share. In addition, the residential PV program provides a bonus if the equipment is manufactured in a municipality with an enterprise zone.

In addition to the programs, the state has a number of policies that promote solar energy. It requires electric companies and competitive electric suppliers to get part of their power from class I renewable resources, which includes solar energy. It requires the companies and suppliers to give their customers who use these resources to generate power a billing credit when they produce more power than they use (net metering).

CGS § 12-412 exempts solar energy electricity generating systems, solar water or space heating systems, as well as equipment related to these systems and related installation services, from the sale tax. CGS § 12-81 requires municipalities to exempt from the property tax solar electric technologies installed in one- to four-unit residential buildings on or after October 1, 2007. It also requires municipalities to exempt any passive or active solar water or space heating system installed in any type of building at any time.

EXISTING PROGRAMS

The Clean Energy Fund supports a wide range of renewable energy programs, encouraging growth in renewable energy supply and demand. Further information about the fund and its programs is available at www.ctcleanenergy.com. Under PA 11-80, CEFIA administers the fund.

Residential Programs

The fund operates a program that provides rebates through approved contractors who install PV systems for residential customers. The rebate typically covers 20% of the system's costs. The systems are also eligible for a 30% federal tax credit.

The fund also operates a rebate program for solar hot water systems. However, it has received more applications than can be funded. The fund will continue to approve projects that are in the pipeline until all available funds are reserved. CEFIA plans to introduce a new program for solar hot water projects as soon as its board of directors is convened, likely this fall. Any project applications which cannot be funded under the existing program will be automatically entered into the new program's queue. Rebates for qualifying projects will be approved once the new program is ratified by the board. Initially, incentives will be comparable to those of the current program.

Nonresidential Programs

The On-Site Renewable Distributed Generation program provides grants for installing renewable energy systems in businesses, public buildings, affordable housing, and nonprofit organizations. On September 12, 2011, CEFIA issued a request for proposals for applications for the installation of PV systems. The total amount of funding available is \$4.5 million. The funding is designed to enable system owners to break even over the project's life, with a fair and reasonable return on investment, compared with buying the equivalent amount of power from the utility. The closing date for proposals is December 30, 2011 and awards will be made in March 2011. The request for proposals is intended to provide funding during the transition from the current program to the zero-emission program established by PA 11-80, described below.

PROGRAMS AND POLICIES CREATED BY PA 11-80

Residential Solar Program

Under the act, CEFIA must offer financial incentives for the purchase or lease of qualifying residential PV systems. The incentive can be paid out on either a per kilowatt-hour basis or as a one-time upfront incentive based on expected system performance. The act requires the Public Utilities Regulatory Authority (PURA) to increase the incentive provided under the program by up to 5% if the solar system uses major components that are manufactured or assembled in Connecticut and another 5% if they are manufactured or assembled in a distressed municipality in the state or a municipality with an enterprise zone.

Zero Emission Generation Program

Starting January 1, 2012, each electric company must solicit and file with PURA for its approval, one or more long-term (15 year) power

purchase contracts with owners or developers of zero-emission generation projects of less than 1,000 kilowatts (1 megawatt or MW) capacity. (PURA are the officials within DEEP who are responsible for utility regulation.) These systems must be located on the customer side of the meter and serve the electric company's distribution system. PURA can give preferences to contracts for technologies that are manufactured, researched, or developed in the state.

The company must solicit renewable energy credits (RECs) produced by eligible projects. (Owners of renewable generation facilities can sell the power they produce on the wholesale electric market as "green power" or can sell the RECs associated with this power separately from the power.) The production of a megawatt hour of electricity from a solar energy source placed in service on or after July 1, 2011 creates one REC. These credits count against the companies' obligations under the Renewable Portfolio Standard.

Municipal Energy Loan Program (PACE)

The act allows any municipality to establish a loan program for financing sustainable energy improvements to qualifying real property located within the municipality, if it determines that this is in the public interest. (These are commonly called Property Assessed Clean Energy (PACE) programs.) Under the act, the energy improvements are (1) any renovation or retrofitting of qualifying real property to reduce energy consumption or (2) installation of a solar or other renewable energy system to serve the property. Qualifying real property are single- or multi-family residential dwellings or other buildings that a municipality determines can benefit from energy improvements. Loans under the program, interest, and any penalties are a lien against the property. The lien must be levied and collected in the same way as property taxes, including, in a default or delinquency, with respect to any penalties and remedies and lien priorities. However, the lien does not have priority over existing mortgages.

Any municipality that establishes a loan program may issue bonds, as needed, to (1) offer loans to the owners of eligible property in the municipality to finance energy improvements, (2) conduct related energy audits, and (3) conduct renewable energy system feasibility studies and verify the installation of any improvements. The bonds and financing must be backed by special contractual assessments on the benefitted property. The municipality can supplement the bonds with other legally available funds at its discretion.

Any loan made under the program must be repaid over a term that does not exceed the time in which the energy costs savings equals the cost of the improvements, as determined by the municipality. The municipality must set a fixed interest rate when each loan is made. The interest rate, as supplemented with state or federal funding that may become available, must be sufficient to pay the program's financing costs, including covering loan delinquencies. The loan cannot have a prepayment penalty.

Condominium Program

PA 11-80 requires CEFIA, in consultation with DEEP, to establish a program within available funds to provide grants to residential condominium associations and owners to buy renewable energy sources, including solar energy, geothermal, fuel cell, and other hydrogen-fueled systems.

Electric Company Ownership of Renewable Generation

Prior law generally barred electric companies from owning power generation facilities. PA 11-80 allows an electric company, as well as the owner or developer of generation projects that do not pollute, to submit a proposal to DEEP to build, own, or operate up to an aggregate of 30 MW of generation capacity using solar energy or other class I renewable energy sources. Each facility must be between one and five MW. The aggregate ownership by an electric company is capped at 10 MW and they can enter into joint ownership agreements with private developers.

DEEP must evaluate the proposals under its general rate-setting principles and may approve one or more proposals if it finds that the proposal serves ratepayers' long-term interests. DEEP (1) may not approve any proposal supported in any form of cross subsidization by entities affiliated with the electric company and (2) must give preference to proposals that make efficient use of existing sites and supply infrastructure. An electric company may not, under any circumstances, recover more than the full costs identified in a proposal, as approved by DEEP. The amount of renewable energy produced from the facilities counts towards the electric company's class I renewable portfolio standard obligations.

Virtual Net Metering

PA 11-80 requires electric companies to provide their municipal customers with “virtual” net metering and make any needed interconnections, including installing metering equipment, for customers

who need it. CGS § [16-243h](#) requires electric utilities to provide equipment and billing for net metering, which in general, allows a customer with an on-site electricity generator powered by a renewable energy resource to earn billing credits by generating more power than he or she uses (essentially “running the meter backwards”). The “virtual net metering” authorized by the act allows the customer to share these credits to lower the electricity bills of other “beneficial accounts” the municipal customer designates.

Building Permit Fee Waiver

PA 11-80 allows municipalities to adopt ordinances exempting class I renewable energy projects from municipal building permit fees.

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