

Harnessing the Power of Tradable Credit Markets for Energy Efficiency

Connecticut has successfully incentivized energy efficiency (EE) project development through market-based tradable credits. The state has quietly stimulated projects for its benefit as well as for EE Providers and their clients. Many other states would benefit from setting up or participating in similar programs.

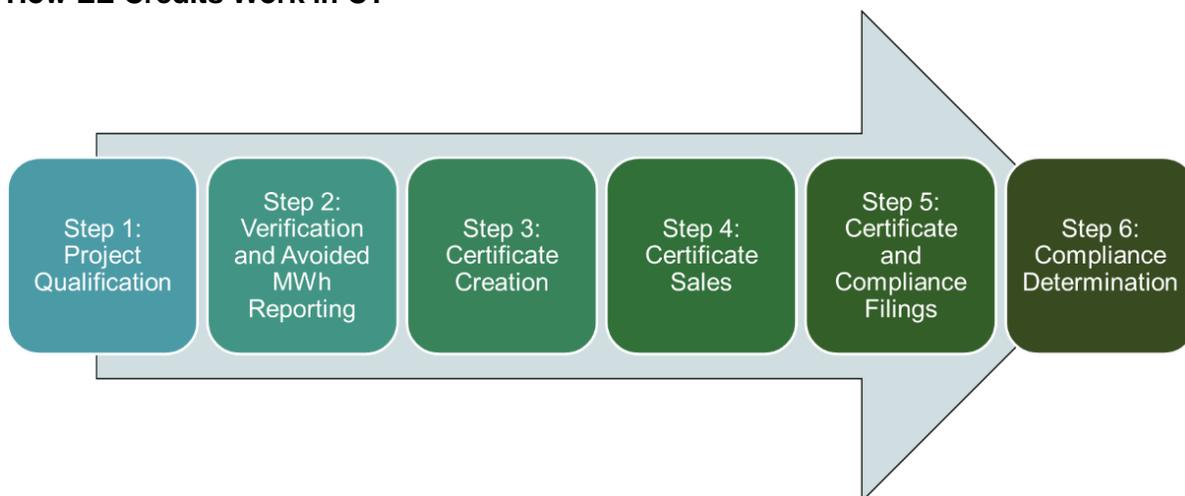
The CT RPS Class III program has effectively harnessed the market structure originally designed to drive private investment in renewable power generation. In Connecticut, the Public Utilities Regulatory Authority (PURA) leverages the existing NEPOOL Generation Information System (GIS) to implement its Energy Efficiency (EE) tradable credits program.

Setting the Stage: Compliance Requirement

Since 2010, electric providers have been required to obtain four percent of their generation supply from Class III resourcesⁱ which include Conservation and Load Management (C&LM) projects and Combined Heat and Power (CHP) projects.

To demonstrate compliance, electric providers purchase and retire CT Class III RECs in the NEPOOL GIS. Each Class III REC represents one MWh of avoided energy created by a qualified EE Project.

How EE Credits Work in CT



Step 1: Project Qualification

An EE Provider submits a qualification package to PURA describing the EE Project and an EM&V plan. The package, including the EM&V Plan must be reviewed and certified by an Independent Verifier (must be a registered professional engineer in CT). The EM&V plan must provide specifics for how the installation will be verified; savings are determined using the approved M&V protocolsⁱⁱ and “credits associated with these measures will require annual re-certification.”ⁱⁱⁱ Upon certification PURA issues the project a compliance ID number. In the NEPOOL GIS this number confirms that all project credits are eligible to be used by an electricity provider in their CT compliance filing.

Step 2: Verification and Avoided MWh Reporting

EE Providers install measures as described in the qualification package. The Independent Verifier checks the installation and if appropriate, calculates and certifies avoided MWh in a report filed with the PURA. A PURA staff person reviews the documents and if satisfied, approves the MWhs for each reporting period. The amount is then entered into the NEPOOL GIS, according to applicable reporting protocols.

Step 3: Certificate Creation

Based on the MWh value reported, the NEPOOL GIS creates and deposits tradable certificates into the EE Provider's account. Each certificate represents one MWh of avoided electric energy and carries the EE Project CT Compliance ID number, verifying that it can be used to demonstrate compliance in a filing to PURA. The NEPOOL GIS registry provides a full creation-to-retirement account of each certificate, with comprehensive reporting to PURA of the final disposition of all certificates issued to the EE Provider.

Step 4: Certificate Sales

The EE Provider enters into a private negotiation with a buyer which results in a bilateral contact to sell some or all of its CT eligible certificates. After this agreement is executed, the EE Provider instructs the NEPOOL GIS to transfer the appropriate number of certificates to the buyer's account. When the buyer has confirmed the transfer, certificates are moved.

Step 5: Certificate Retirement and Compliance Filing

The certificates will likely be purchased by an electricity provider who intends to use them to demonstrate compliance with the CT requirements. To be used in a compliance filing, certificates must be transferred to a retirement account set up by an electricity provider explicitly for this purpose. Retiring certificates results in their being permanently removed from the market. Final ownership is assigned to the retirement account holder who can include certificates in their PURA compliance filing.

Step 6: Compliance Determination

After reviewing the compliance filings, including reports from NEPOOL GIS, PURA staff make a compliance determination.

Example: EE Provider

After winning a contract through the mid-2020s with United Illuminating (UI), an EE Provider began work on an EE project. Under the terms of the contract, the EE Provider will generate 5 MW total capacity to be sold into the ISO-NE Forward Capacity Market. Under the terms of this agreement the EE Provider retains ownership of MWh avoided electric energy compliance value for the CT Class III program. The EE Provider's CT Class III

qualification package was approved in 2010; the firm files quarterly Independent Verifier reports to PURA on MWh avoided energy. After review and approval by PURA, an Independent Verifier reports the MWh savings to NEPOOL GIS, which in turn issues CT Class III qualified certificates. The EE Provider has been selling its Class III certificates to entities seeking compliance since 2010.

ⁱ Department of Public Utility Control (2006, February 16). *DPUC Proceeding to Develop a New Distributed Resources Portfolio Standard (Class III)*. New Britain, Connecticut.: Department of Public Utility Control.

ⁱⁱ ID

ⁱⁱⁱ ID