

# **CHP and Class III Portfolio Standards in Connecticut**



## **The Role of CHP in State Renewable/ Energy Efficiency Portfolio Standards**

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Cindy Jacobs, Principal Finance Specialist  
**CT Department of Public Utility Control**



# **Public Act 05-01 Established Class III Renewable Portfolio Standard amended by PA 07-242**

- Class III Resources:
- Energy Efficiency
- Demand Response
- Combined Heat and Power
- Waste Heat Recovery added
- C&I and Residential projects may qualify



# Class III Annual Requirements

CT requires electric suppliers and electric distribution companies (EDCs) to obtain a percentage of their generation supply from Class III resources:

- 1 percent beginning January 1, 2007
- 2 percent beginning January 1, 2008
- 3 percent beginning January 1, 2009
- 4 percent beginning January 1, 2010



# CT DPUC Implementation

DPUC Dockets 05-07-19 (Decisions 2/16/06, 6/28/06) and 05-07-19RE01 (Decision 9/29/06) implemented Class III legislative requirements:

- qualifying activities
- certification process
- measurement and verification
- Class III creation, tracking and trading
- allocation of Class III credits
- alternative compliance payment



# CHP – Qualifying Activities

- Located in Connecticut; entered into commercial operation on or after 1/1/06
- Operating efficiency of no less than 50%
- 20% of energy output to electricity; 20% of energy output to thermal energy
- Maximum size 65 MWe, no minimum size
- Must meet CT Dept of Environmental Protection air quality standards
- Installation must comply with manufacturer's instructions, interconnection requirements, all applicable electrical codes and local, state, and federal codes, permits and practices
- All required inspections must be performed



# Certification of CHP Eligibility

- Each project files an application with CT DPUC
- Application - project narrative, type and rating of the prime mover and waste heat recovery application, manufacturer or vendor performance guarantees, schematic of CHP system
- Revenue quality metering
- Annual report - total fuel input, verification that heat recovery and performance standards are being met.
- DPUC reserves right to conduct site visits



# Measurement & Verification of Performance

- Credits issued only based upon revenue quality metered electricity production
- Project must participate in NEPOOL Generation Information System (GIS)
- Quarterly verification that project is complying with performance and efficiency standards



# Waste Heat Recovery

- PA 07-242 extends eligibility to WHR installed on or after 4/1/07
- WHR - savings in electricity for processes that actively capture byproduct heat that would otherwise be released, and which creates a net reduction of electricity used for space heating, water heating or other thermal load
- Qualifying criteria, certification process similar to CHP

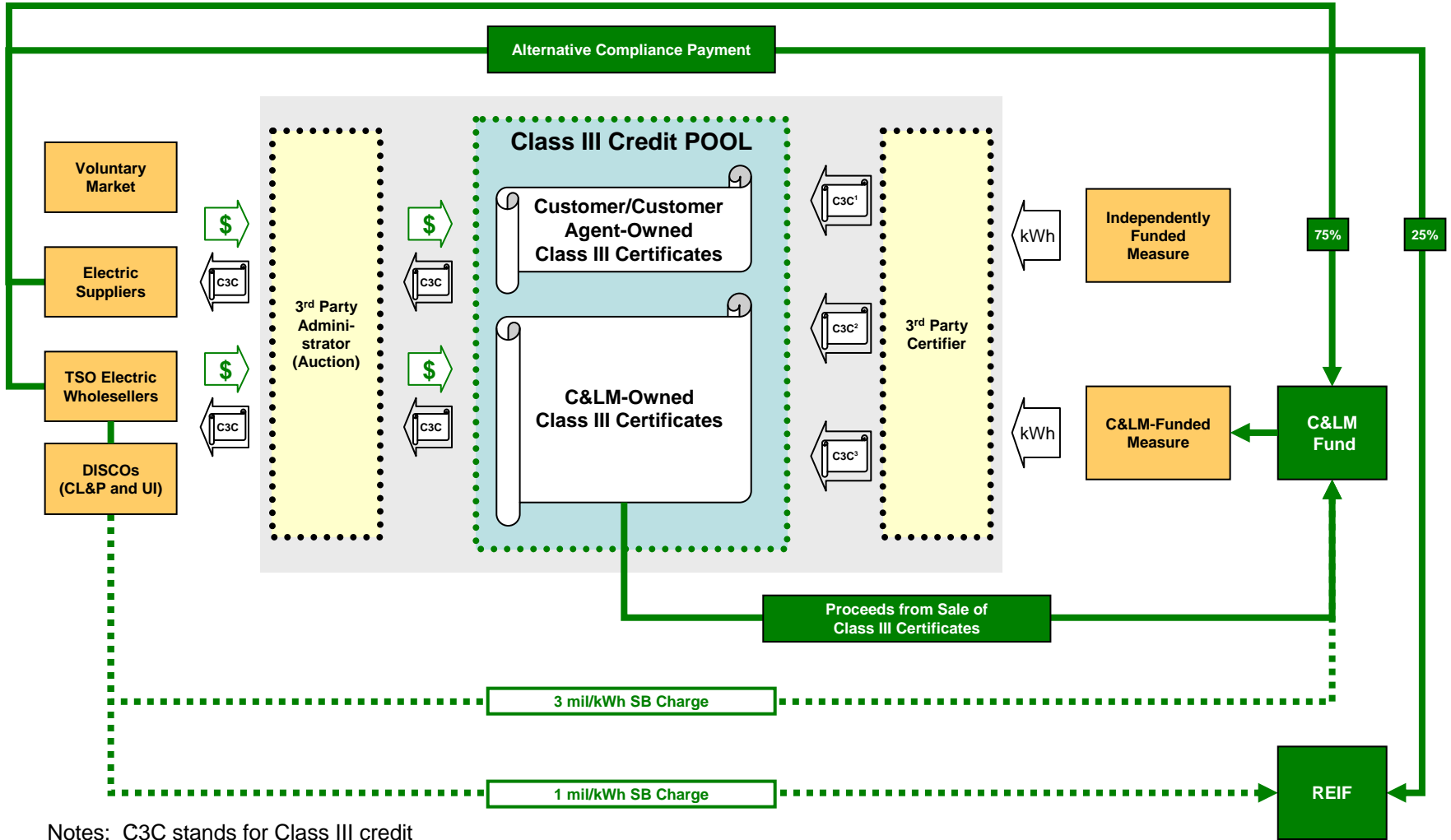


# WHR Measurement & Verification

- Class III credits earned on electric savings compared to baseline electric use, net of parasitic load
- M&V protocol similar to energy efficiency installations, Technical Reference Manual, certified by Professional Engineer.
- Class III credits earned on converting waste heat to electric energy use similar metering protocol to CHP



# Class III Credit Creation and Trading



Notes: C3C stands for Class III credit

<sup>1</sup>Class III Credits generated by independently funded C&I projects are allocated 75% to the Customer/Customer Agent, 25% to the C&LM Fund.

<sup>2</sup>Class III credits generated by projects financed through the C&LM Fund are allocated 100% to the C&LM Fund; alternatively, C&LM funded projects may accept a lower C&LM incentive and a one-time credit.

<sup>3</sup> Class III Credits generated by independently funded residential projects are allocated 100% of their Class III credit allocation.



# Class III Credit Allocation

- Independently funded C&I projects earn 75% of Class III credits
- Remaining Class III credits allocated to the C&LM fund
- At time of certification, Class III project must notify EDC
- Class III project must also notify NEPOOL GIS
- Class III credits remitted quarterly to NEPOOL GIS, electronically transferred to EDC C&LM account



# Alternative Compliance Payment

- \$0.031/kWh assessed on electric suppliers and EDCs that fail to meet the Class III percentage requirements



# DPUC Website Access to RPS Application

<http://www.dpuc.state.ct.us/CTRPSGeneratorApplication.nsf>

**Welcome to the Connecticut Department of Public Utility Control (DPUC) Renewable Portfolio Standards Generator Qualification Application**

**[Click here to Register in order to submit information to this database \(first time use only\)](#)**

**[Click here to access the Connecticut Renewable Generator Qualification Application](#)**



# Recent CHP Dockets

- Docket 08-02-03 – Aegis
- Docket 08-07-20 – Kimberly-Clark
- Docket 08-09-22 – UTC Power
- Standard order – Quarterly filing:
  - Average fuel conversion efficiency, percentages of electricity and thermal energy production
  - Proof of compliance with the efficiency standards and CT PE approval with the project's M&V plan



# Questions?

<http://www.ct.gov/dpuc>

[Cindy.Jacobs@po.state.ct.us](mailto:Cindy.Jacobs@po.state.ct.us)