

CALL FOR QUALIFIED TECHNOLOGIES - WOOD PELLET BOILER RENEWABLE HEAT-NY



NYSERDA's Renewable Heat NY Program identifies manufacturers of high-efficiency and low-emissions (HELE) wood pellet-fired boilers that will be eligible for installation under this program. To be listed as a manufacturer with a NYSERDA-qualified technology we ask you submit information and data as described below to RHNY@nyserda.ny.gov.

NYSERDA seeks to qualify residential and commercial wood pellet boilers up to 2 million Btu/h. Pellet boilers must be fully automatic, low mass (low volume) and have sensors and controls to optimize combustion performance. This is most easily achieved using a staged combustion design with lambda control. HELE pellet boiler heating systems must use bulk pellet storage (> 3 tons) and be designed to be fueled by an automatic conveyance system. The wood pellet boiler must have a minimum thermal efficiency of 85% at rated output using the higher heating value (HHV) of the pellet fuel if tested using an input/output method and emissions of less than 0.080 lb/mmBtu and < 270 ppm for PM2.5 and CO respectively.

High-Efficiency and Low-Emissions Wood Pellet Boiler Performance	
Thermal Efficiency (HHV)	85%
Particulate Matter Emissions	<0.080 lb/mmBtu
Carbon monoxide (CO) Emissions	<270 ppm at 7% O ₂

Manufacturers must submit the following information for review to RHNY@nyserda.ny.gov:

1. Cover letter that includes a description of the unit, the date and location of testing, and a primary point of contact for questions (email and phone).
2. Copy of US Environmental Protection Agency letter certifying compliance with the 2015 Residential Wood Heater New Source Performance Standards.
3. Complete official test report using the EPA Method 28 WHH or EPA Method 28 WHH-PTS [formerly named the Brookhaven National Laboratory test method (www.dec.ny.gov/docs/air_pdf/part-thermtestmethod.pdf)] for boilers with partial thermal storage. No other test protocol results will be considered. Test reports must not be more than two years old at time of application. Only design parameters can be designated as confidential business information (CBI).
4. Owner's manual
5. Warranty description must include the length and limits of coverage for the boiler and components (e.g., pressure vessel, combustion chamber, computer processing unit, other components).

Manufacturers must submit emissions performance verification results of the same boiler model and pellet fuel combination with the qualified technology application. Performance testing for thermal efficiency, particulate matter, and CO must have been performed by an EPA accredited laboratory. EPA Method 28 WHH, or EPA Method 28 WHH-PTS [formerly the Brookhaven National Laboratory test method (http://www.dec.ny.gov/docs/air_pdf/part-thermtestmethod.pdf)] for boilers with partial thermal storage.

Application Evaluation

Applications are being accepted through December 2019. Applications that meet Application Requirements will be reviewed using the evaluation criteria below:

1. Were all required materials submitted with the application including the cover letter, owner's manual and complete warrantee information?
2. Is the pellet boiler fully automatic with sensors and controls to optimize performance?

3. Is the pellet boiler low mass (i.e. low volume water jacket)?
4. Does the unit utilize external thermal storage (i.e. buffer tank)?
5. Is the unit designed to be fueled by an automatic conveyance system and use bulk pellet storage (> 3 tons)?
6. Is the pellet boiler certified by the US EPA using EPA Method 28 WHH or M28 WHH-PTS in the previous two years? Were both the complete official test report and the US EPA certification letter submitted?
7. Does the application meet the requirements for thermal efficiency (HHV)?
8. Does the application meet the requirements for fine particle emissions?
9. Does the application meet the requirements for carbon monoxide emissions?

Questions may be submitted to RHNY@nyserda.ny.gov.