

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.

Manufacturers should provide 1) a cover letter, 2) a test report by a technically competent independent third-party, and 3) warranty information. The cover letter must accompany the application and if necessary convert any alternative units to the units as shown:

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 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 independent third-party using the U.S. Environmental Protection Agency (EPA) Conditional Test Method (CTM) 39, EPA Federally Referenced Method 5 and 202, EPA Other Test Method 15, EPA Method 28 WHH, or the Brookhaven National Laboratory test method (www.dec.ny.gov/docs/air_pdf/part-thermtestmethod.pdf) for boilers with partial thermal storage. Alternatively, European Norm 303-5 test results may also be considered, but must include dust and organic gases. Alternative test results may be reviewed on a case by case basis.

The warranty description should include the length and limits of coverage for the boiler and components (e.g., pressure vessel, combustion chamber, computer processing unit, other components).

Application Evaluation

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

1. Was the performance evaluation performed by an independent and technically-competent third party?
2. Was the performance evaluation conducted using an approved test method?
3. Is a cover letter provided converting test results to appropriate units of thermal efficiency (HHV), PM (lb/mmBtu, CO (ppm, 7% O₂)?)
4. Is the technical test report by a technically competent third party included in the application?
5. Does the application meet the requirements for thermal efficiency (HHV)?
6. Does the application meet the requirements for fine particle emissions?
7. Does the application meet the requirements for carbon monoxide emissions?
8. Does the application provide complete warranty description?

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