Welcome to the LIFE Webinar Series. We will be starting soon.
The Low-Income Forum on Energy Presents:

Renewable Heat New York

Matt McQuinn, NYSERDA

September 21, 2017
1:30 p.m. – 2:30 p.m. ET
LIFE, the Low-Income Forum on Energy, is a unique statewide dialogue that brings together organizations and individuals committed to addressing the challenges and opportunities facing low-income New Yorkers as they seek safe, affordable and reliable energy.

Supported by the New York State Public Service Commission and the New York State Energy Research and Development Authority (NYSERDA), the LIFE dialogue encourages an interactive exchange of information and collaboration among the programs and resources that assist low-income energy consumers.
Monthly webinars

- **Friday, September 22, 2017 @ 1:30-2:30 p.m. ET**
  Leveraging Partnerships to Open Opportunities

- **Wednesday, October 25, 2017 @ 1:00-3:00 p.m. ET**
  Home Energy Assistance Program (HEAP) Updates for the 2017-2018 Heating Season

- **Wednesday, November 29, 2017 @ 1:30-2:30 p.m. ET**
  U.S. Department of Agriculture’s Home Repair and Home Purchase Programs

- **Tuesday, December 19, 2017 @ 1:30-2:30 p.m. ET**
  Best Practices for Low- to Moderate-income Community Solar

Monthly email newsletter

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nyserda.ny.gov/LIFE

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nyserda.ny.gov/LIFE – “Join the email list.”

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LIFE@nyserda.ny.gov

Contact LIFE
Phone: 866-697-3732 – Request “Low-Income Forum on Energy”
Email: LIFE@nyserda.ny.gov
Asking and Responding to Questions

Welcome!
We will be starting soon.

Type into the text field and click “send.”
Technical Difficulties or Contacting the Host

Click on the “Chat” icon to activate the chat function.
Renewable Heat New York

Matt McQuinn, Project Manager
September 21, 2017
Renewable Heat New York

Announced in Governor Cuomo’s 2014 State of the State Address

Built upon NYSERDA’s biomass heating R&D program to bring advanced technologies into the NYS heating market

Retirement of outdoor wood boilers, indoor wood boilers and wood stoves

Commercial pellet boiler heating systems

Residential pellet boiler heating systems and stoves

Residential/small commercial advanced cordwood boilers with full thermal storage

Continued R&D

Workforce development for proper system design, sizing and quality installations

John Rhodes, President and CEO, NYSERDA announcing Renewable Heat NY July 29th, 2014. Photo credit: Pyramid Energy EES.
Residential Wood Combustion by County (tons) in 2011

Source: Wood Heat Report
Per Capita Residential Wood Combustion (pounds) by County in 2011

Source: Wood Heat Report
Why Heat With Wood?

Heating Oil Prices vs. Other Fuels ($/MMBtu) 2010-2016

*Calculations do not reflect efficiency values for the fuel. 100% efficiency is assumed.*
Qualified Advanced Cordwood Boiler Technologies

Must be >60% annual efficiency by BNL PTS and be accepted by NYSDEC. PM <0.32 lb/MBtu, report CO
Advanced cordwood boiler in outbuilding

Advanced cordwood boiler

Seasoned wood is kept dry

Thermal storage tank in basement of farmhouse
Qualified Pellet Boiler Technologies

Must be >85% thermal efficiency, PM2.5 < 0.080 lb/MMBtu, and CO < 270 ppm at 7% O₂
Bulk Pellet Storage
Maximizing performance with thermal storage

1250 Gallons Unpressurized

528 Gallons Pressurized
### Residential / Small Commercial Boilers

<table>
<thead>
<tr>
<th>System Type / Technology</th>
<th>Incentive amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Cordwood Boiler with Full Thermal Storage</td>
<td>25% of installed cost up to $5,000</td>
</tr>
<tr>
<td>Small Pellet Boiler with Thermal Storage</td>
<td>45% of installed costs up to $36,000</td>
</tr>
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</table>

An additional $5,000 for the recycling of old outdoor/indoor wood boiler or $2,500 for recycling a whole house wood furnace.
Renewable Heat NY Biomass Boiler Contractors

NYSERDA will accept applications to become an Installer/Contractor under the program as long as funds remain available. If approved, the applicant will be required to execute the Participation Agreement with NYSERDA and to abide by its terms and conditions.

Only eligible installers/contractors can offer incentives available through the Renewable Heat NY Residential/Small Commercial Biomass Boiler Incentive Program.

For information on becoming an eligible installer/contractor please visit the Program Opportunity Notice (PON) webpage to access Attachment F - Installer Application and Instructions document.
# Large Commercial Boilers (>300,000 Btu/h)

<table>
<thead>
<tr>
<th>System Type / Technology</th>
<th>Incentive amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Pellet Boiler with Thermal Storage</td>
<td>40% of total installed cost up to $200,000</td>
</tr>
<tr>
<td>Tandem Pellet Boiler with Thermal Storage</td>
<td>45% of total installed cost up to $270,000</td>
</tr>
</tbody>
</table>

Sizing ≤ 60% design day load, thermal storage, careful system integration with existing heating system and heat distribution system and controls.

Technical assistance for energy study, and review of commissioning and first year of Measurement and Verification.
Qualified Pellet Stove Technologies
Residential Pellet Stoves

The following incentives are available toward the purchase of a new pellet stove for use in a primary residence, without natural gas service:

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Incentive Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Rate with Recycling</td>
<td>$1,500</td>
</tr>
<tr>
<td>Income Qualified (No Recycling)</td>
<td>$2,000</td>
</tr>
<tr>
<td>Income Qualified, add optional Recycling</td>
<td>$2,500</td>
</tr>
</tbody>
</table>

The new stove can provide either primary or supplemental heating and must be listed on the US EPA Certified Wood Stoves list as having a particulate matter output of 2.0 grams per hour (PM 2.0 g/h) or less and an actual measured efficiency of 70% efficient or greater.
Cost Breakout per Customer Type

- Market Rate: $1,500 Incentive, $1,700 Cost to Customer
- LMI: $2,000 Incentive, $2,200 Cost to Customer
- LMI + Recycle: $2,500 Incentive, $3,000 Cost to Customer
Residential Pellet Stove Program Participation
Market Rate vs. Low-Moderate Income

53%
47%
Renewable Heat NY Pellet Stove Contractors

Only approved Participating Contractors can offer incentives available through the Renewable Heat NY Residential Pellet Stove Incentive Program. The Participating Contractor is responsible for managing the incentive and installation process for each pellet stove installation. Although the Participating Contractor may hire a Certified Installer to perform each installation, the Participating Contractor is expected to manage the Certified Installer toward completion of that installation.

**How to Apply to be a Participating Contractor**
The following steps summarize this process. Complete details are available in the [Program Manual](#) [PDF].

1. Complete and electronically sign [Online Participating Contractor Application](#). A legal company representative must sign the Participating Contractor Application.

1. Participating Contractors agree to abide by the following documents:
   - [Program Manual](#) [PDF]
   - [Participation Agreement](#) [PDF]
Renewable Heat NY Training Opportunities

Join us for a full-day design-focused workshop

- Discover best practices for combining modern, high-efficiency wood-fired boilers with hydronic distribution systems.
- Explore operating characteristics of two-stage wood-gasification boilers, pellet-fired boilers, and the latest complementary hydronic heating technology.
- Discuss low-temperature heat emitters, high-efficiency circulators, modern control techniques, and options for water-based thermal storage.
- Learn how to combine these heat sources and distribution techniques into stable, efficient, and reliable systems.

Tuesday, October 10, 2017
8:00 AM - 5:00 PM
SUNY Morrisville
80 Eaton Street
Morrisville, NY 13408

or

Tuesday, October 24, 2017
8:00 AM - 5:00 PM
Queensbury Hotel
88 Ridge Street
Glens Falls, New York 12801
Questions?
Thank you

Matt McQuinn
866-NYSERDA, ext.3053
matt.mcquinn@nyserda.ny.gov
www.nyserda.ny.gov/renewableheatny
Join us for upcoming webinars.

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