

## **Heat Pump Adder Pilot Study**

### **Background**

The Heat Pump Adder Pilot Study (Pilot) has allotted a budget of \$5 million to help facilitate the adoption of heat pump technology, including air-source heat pumps, ground-source heat pumps, and heat pump water heaters in low-to-moderate income households. Through the Pilot, eligible projects can leverage a NYSERDA incentive in addition to any applicable utility incentives toward the installation of heat pump technology in 1-4 family homes. NYSERDA is estimating the completion of approximately 500 projects.

### **Contractor Requirements**

The Pilot is open to Assisted Home Performance with ENERGY STAR (AHP) and EmPower, New York (EmPower) participating contractors (Pilot Contractor) who are in good standing in their respective program(s). The installation of the heap pump equipment must be performed by a NYS Clean Heat participating contractor in accordance with the rules of the NYS Clean Heat Program.

If a NYS Clean Heat participating contractor is not currently participating in AHP/EmPower, they can partner with an existing AHP/EmPower contractor to submit projects as part of the Pilot. In these instances, the AHP/EmPower contractor will receive a \$500 subcontractor fee for each project completion in addition to receiving the Pilot incentive. AHP contractors are not eligible to receive the 5% contractor incentive on Pilot measures.

Given the limited budget for this Pilot, no individual contractor can submit projects totaling more than 20% of the overall program budget. A tracking mechanism for the Pilot will be available on the contractor support site at <https://hpwescontractorsupport.com/>.

### **Customer Requirements**

To be eligible for incentives, the home must be a 1-4 family with the residents/tenants paying the utility bills. The project must be located in SBC territory (municipal electric and PSEGLI customers are not eligible). In addition, the household must qualify for either AHP or EmPower.

### **Minimum Project Requirements**

To be considered for replacement under this Pilot, the existing equipment must be greater than 5 years old with a fuel type other than natural gas.

To ensure the efficiency of the heat pump equipment, the project home must have the following minimum insulation levels installed prior to the installation of the heat pump:

Area	Required Insulation Level
Walls	R-14
Attic	R-30 Average
Attic Hatches	R-20
Pull Down Stairs	R-13
Rim Joists	R-14
Mobile Home Walls	R-6
Mobile Home Attic	R-24
Mobile Home Belly	R-21

Prior to the installation of heat pump heating equipment, the contractor must verify the home is tightened to at least 5 ACH or below to ensure proper heating from heat pumps. If the contractor can not perform a blower door test, they should estimate leakage to the best of their ability.

For heating equipment, the proposed heat pump(s) must cover 90-120% of the building load. Under this Pilot, the existing heating system may remain; however, the Pilot does not support hybrid installations.

Below are the minimum requirements for heat pump equipment installed through this Pilot:

- Air Source Heat Pump- NEEP Cold Climate Rated
- Ground Source Heat Pump- ENERGY STAR certified and meet or exceed ENERGY STAR Tier 3 Geothermal Heat Pump Key Product Criteria
- Heat Pump Water Heater  $\leq$  55 Gallon UEF  $>2.0$ ,  $> 55$  Gallon UEF  $\geq 2.2$

### **Incentive Structure**

NYSERDA incentives under this Pilot will cover projects up to 60,000 Btu/heating and can be used in conjunction with utility incentives. NYSERDA incentives will be paid to the Pilot Contractor. Below is a table of incentive caps, based upon location, equipment installed, and program type.

Description	Incentive Type	EmPower	AHP
Upstate ASHP	\$/10,000 btu	\$3,000	\$1,500
Downstate ASHP	\$/10,000 btu	\$2,200	\$1,100
Upstate GSHP	\$/10,000 btu	\$3,800	\$3,800
Downstate GSHP	\$/10,000 btu	\$3,800	\$3,800
Upstate HPWH	\$/unit	Normal EmPower	\$975
Downstate HPWH	\$/unit	Normal EmPower	\$825
Panel Box Upgrade/ Distribution Improvement	≤ 100 Amps	Up to \$2,000	50% of Cost up to \$1,000

**Downstate Counties: New York, Bronx, Kings, Queens, Richmond, Orange, Rockland, Westchester, Putnam, Sullivan, Dutchess, and Ulster**

Additional incentives are available for ductwork, modifications to thermal distribution systems, panel boxes, health and safety and other related accessories. These incentives are capped at \$2,000 for EmPower eligible customers and \$1,000 for AHP customers and will be paid to the Pilot Contractor.

If an existing panel box is ≤ 100 Amps, it can be replaced automatically through the Pilot. If the home requires greater than 100 Amp service, then a NEC worksheet must be completed indicating the need for the larger service. Pilot Contractors must provide a photo of the panel box and an invoice for the replacement panel. Panel box work may include risers and other measures associated with the main electrical supply, including permits. Individual supply lines and boxes for the heat pump should be included in the cost of the heat pump.

### Project Submission

Pilot Contractors submitting projects using the EmPCalc modeling tool must download the latest version located [here](#).

In addition to the standard AHP/EmPower project completion paperwork, Pilot projects must also include the following required documents as part of the project submission process:

- Heat Pump Information Form (Attachment 1)
- LMI Heat Pump Adder Certificate of Completion (Attachment 2)
- Panel Box Photo (Required if Panel Box Upgraded)
- Panel Box Invoice (Required if Panel Box Upgraded)
- Heat Pump Equipment Invoice(s)
- NEC calculation sheet if panel box being upgraded is >100 Amps

### Pilot Terms and Conditions

The Pilot Contractor is solely responsible to ensure each project meets the requirements outlined above. The Pilot Contractor acknowledges that failure to follow

Pilot requirements and procedures and any future Program Announcements may result in a loss of applicable incentives and possible disciplinary action.

The Pilot Contractor also acknowledges if NYSERDA determines a Pilot Contractor has not strictly adhered to the terms and conditions of this Pilot on a project, any program/Pilot incentives paid to the Pilot Contractor on the project, shall, at NYSERDA's discretion, be repaid to, or recaptured by, the program from the Pilot contractor. Upon notice from NYSERDA, the Pilot Contractor shall provide NYSERDA direct payment within 30 days for the identified outstanding value of any program/Pilot incentives paid on projects that do not comply with program terms, conditions, policies or procedures identified in this Section, the Contractor Resource Manual, or Program Announcements.

In the event the Pilot Contractor submits one or more projects not meeting the requirements of the Pilot, the Pilot Contractor may be removed from further participation in the Pilot or face disciplinary action.

As the Pilot progresses, NYSERDA reserves the right to modify Pilot requirements, including, but not limited to, adjusting contractor and measure eligibility thresholds at any time for any reason. In every instance, Pilot Contractors will be provided with a minimum of 14 days' notice prior to the implementation of any changes.

### **Additional Information**

For additional information on the Pilot, including a webinar and Frequent Asked Questions documentation, please visit <https://hpwescontractorsupport.com/trainings-and-webinars/webinars/>.

# **ATTACHMENT 1**

## **Heat Pump Information Form**



I, \_\_\_\_\_  
Printed Homeowner Name

residing at \_\_\_\_\_  
Homeowner Address

acknowledge the following in regard to the installation of a heat pump system in my home:

1. Installing a heat pump in a home that does not have air conditioning can result in higher electric bills when used for air conditioning.
2. Any bill payment benefits I receive through Home Energy Assistance Program (HEAP) or from my utility provider for heating fuels may change after converting to heat pumps.
3. Overall energy cost reductions are not guaranteed, and my bills may increase. Energy costs depend on a variety of factors, including usage and how well my home is insulated and air sealed.
4. Heat pumps operate differently from traditional boilers and forced air furnaces. In order to maintain comfort in my home I may have to learn how to operate my thermostat differently. I understand that my HVAC contractor will instruct me in the proper use of the heat pump and its thermostat.

\_\_\_\_\_  
Homeowner (Printed)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Homeowner (Signature)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Contractor (Signature)

\_\_\_\_\_  
Date

## **ATTACHMENT 2**

**LMI Heat Pump Adder Certificate of Completion**

# Certificate of Completion

LMI Heat Pump Adder Study



EmPower New York     Assisted Home Performance with ENERGY STAR®

Customer Name: \_\_\_\_\_ Contractor Name: \_\_\_\_\_

EmPower ID#: \_\_\_\_\_ AHP ID: \_\_\_\_\_

**Contractor:** I, \_\_\_\_\_ attest that all measures completed by my company for EmPower New York/ Assisted Home Performance adhere to current standards defined by the Building Performance Institute (BPI) and the current EmPower New York/ Assisted Home Performance Program Guidelines. I further attest that for all Home Performance designated projects, I have conducted the appropriate Combustion Appliance Zone (CAZ) testing and left the home in a safe condition as per BPI Standards.

I attest that I have educated the customer on the use of their heat pumps and any effect they may have on their utility bills. The customer has signed the NYSEDA attestation and it will be completed in project completion paperwork.

I attest that this project adheres to the [NY Clean Heat program Guidelines](#), that a Manual J has been performed for this home, and that I or the NYS Clean Heat contractor will be applying for a reimbursement from the NY Clean for a utility heat pump rebate.

I attest that my company is responsible for collecting the utility rebate for this project and I will not hold the customer responsible for the contractor's failure to collect these funds. I will also not place a lien on the customer's property for outstanding funds that were promised as a utility rebate.

Company Authorized Signatory: \_\_\_\_\_ Date: \_\_\_\_\_



**ATTACHMENT 3**  
**NEC Calculations Sheet**

## NEC Standard Electrical Load Calculation for Single Family Dwellings

(Only for Service Ratings of 120/240V, 225 Amps Max)

Owner: \_\_\_\_\_ Location: \_\_\_\_\_

Total Floor Area of Dwelling(NEC 220.12) \_\_\_\_\_ SQFT.

Factor	Quantity	Volt Amperes (VA)
<b>“General Lighting”</b>		
1. General Lighting (SQFT X 3 VA/SQ FT (Table 220.12))	3 X sqft.	
2. Small Appliance Circuits (1500 VA per circuit) (NEC 220.52(A)) (minimum 2)	1500 X	
3. Laundry Circuit (1500 VA per circuit) (NEC 220.52(B))	1500 X	
4. Total General Lighting Load (Add lines 1, 2 & 3):		
5. First 3000 VA @ 100%:		3000
6. Total General Lighting Load – 3000 = _____ @ 35%=		
<b>7. Net General Lighting Load (Per NEC 220.42) (Add lines 5 &amp; 6):</b>		
<b>*Fixed Appliances(if insufficient space, use back):</b>		
	YES	NO
• Garbage Disposal	<input type="checkbox"/>	<input type="checkbox"/>
• Bathroom Fan	<input type="checkbox"/>	<input type="checkbox"/>
• Microwave	<input type="checkbox"/>	<input type="checkbox"/>
• Dishwasher	<input type="checkbox"/>	<input type="checkbox"/>
• Other:	<input type="checkbox"/>	<input type="checkbox"/>
• Other:	<input type="checkbox"/>	<input type="checkbox"/>
Total		
8. 3 or less Appliances, Total Appliance VA; 4 or more Appliances, 75% of Total Appliance VA (NEC 220.53):		
<b>*Other Loads (including motors, EV charger(s), etc.)</b>		
	YES	NO
9. Electric Range (8000VA or Nameplate)**	<input type="checkbox"/>	<input type="checkbox"/>
10. HVAC	<input type="checkbox"/>	<input type="checkbox"/>
11. Electric Oven	<input type="checkbox"/>	<input type="checkbox"/>
12. Electric Dryer (5000 VA minimum)**	<input type="checkbox"/>	<input type="checkbox"/>
13. Electric Vehicle Charger	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14. Other:	<input type="checkbox"/>	<input type="checkbox"/>
15. Other:	<input type="checkbox"/>	<input type="checkbox"/>
<b>16. 25% of largest motor (NEC 430.24)</b>		
<b>Total Service Load Volt-Amperes (VA) (Add lines 7, 8 &amp; 9 thru 16) =</b>		
<b>Total Service Load Volt-Amperes / 240-volts =            Amperes</b>		
<b>***Service Rating (Amperes)=</b>		

\* For every “YES” answer, indicate VA rating of equipment

\*\* Nameplate rating must be used if larger

\*\*\* Service Rating shall be greater than or equal to the Service load

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