



Residential and Small-Scale Air-Source Heat Pump Program Program Manual

Updated: July 25, 2018

Please note: MassCEC will be reducing rebate levels starting on November 1, 2018. Any qualifying applications submitted on November 1, 2018 or later will receive the lower rebate level, regardless of when the project was completed. In order to submit applications by this date, Projects will likely need to be completed several days prior to the deadline.

The Massachusetts Clean Energy Center (“MassCEC”) has authorized \$48 million in funding to support a suite of Clean Heating & Cooling programs. As part of this initiative, MassCEC provides rebates for the installation of small-scale air-source heat pump (“ASHP”) systems at residential, commercial, public, or non-profit properties through the Residential and Small-Scale Air-Source Heat Pump Program (the “Program”).

Under this Program, the System Owner works with a Primary Installer to install an eligible ASHP model. Then the System Owner and/or Primary Installer must apply for a rebate within 90 days of Project Completion. System Owners and Installers should apply through MassCEC’s online portal, managed by Energy Federation Inc., (“EFI”). Once MassCEC approves the Application and awards an amount, dependent on Project qualifications described herein, MassCEC sends the rebate to the System Owner.

Through the Program, MassCEC supports efficient and high-quality ASHP technologies that reduce greenhouse gas (“GHG”) emissions and often provide lifetime consumer utility cost savings. In the interest of increasing access to these technologies to broad customer populations, MassCEC offers increased incentives for households that earn less than 120% of the state median income, and for affordable housing.

This Residential and Small-Scale ASHP Program Manual (the “Program Manual”) describes the rebate application process, eligibility requirements, and rebate levels. This Program covers residential, small-scale commercial, public, or non-profit Projects (“Projects”) with:

1. Up to twenty (20) single-head ASHPs; or
2. Up to twenty (20) heating tons¹ of capacity at five (5) degrees Fahrenheit for multi-head or ducted ASHPs; or
3. A combination of up to twenty (20) single-head ASHPs and heating tons of capacity at five (5) degrees Fahrenheit for multi-head or ducted ASHPs.

For projects with more than 20 single-head ASHPs or with more than 20 heating tons of capacity at five (5) degrees Fahrenheit for multi-head and ducted ASHPs, please refer to the Commercial-Scale ASHP Program Manual, available on the [MassCEC website](#).

¹ 1 heating ton = 12,000 Btu/hr

The capitalized terms used in the Program Documents are defined in Section 4 of the Program Manual. Program Documents and further Program information are located on the Program webpage (<http://www.masscec.com/get-clean-energy>).



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1. How to Participate in the Program

Step 1. Check Project Site Eligibility and Funding Availability: All Project Sites must be located in a utility territory that contributes to the Renewable Energy Trust and must meet all other program eligibility requirements, as detailed in Section 2.1.

Annual funding may be limited and is available on a first-come, first-served basis. MassCEC will provide three (3) months' notice on the [Program webpage](#) if it is anticipated that funds will become unavailable in the given fiscal year.² If funds are exhausted, additional funding may be added at MassCEC's discretion. Throughout the duration of the Program, MassCEC reserves the right to modify and decrease the amount of program incentives. MassCEC will provide a minimum of four (4) weeks' notice before any changes to incentive levels go into effect.

Step 2. Ensure Project Meets Requirements and Primary Installer Meets Eligibility: The System Owner and Primary Installer (together the "Applicant Parties") should read this Program Manual prior to submitting an Application. The Applicant Parties must determine: (1) if the Primary Installer will meet program requirements specified in Section 2.4 in order to qualify for a rebate, and (2) if the Project will meet program requirements specified in Section 2 in order to qualify for a rebate, including site eligibility and project technology requirements. Primary Installers that have already been approved for participation in the program are listed on the [Finding an ASHP Installer page](#). Information on how to become a participating installer is detailed in Section 2.4.

Step 3. Determine Eligibility for Rebate Adders:

Residential System Owners: Determine eligibility for Electric Resistance Displacement Adder, and if applicable, pursue one of the verification methods described in Section 2.3. Determine eligibility for the Income-Based Rebates and, if applicable, apply for income verification. See Section 2.3 for information on eligibility guidelines and verification methods.

Non-Residential System Owners: Determine eligibility for the Public/Non-Profit Adder and the Affordable Housing Adder, as described in Section 2.3.

Step 4. Complete Project: Projects must be completed according to all Program guidelines provided in this Program Manual in order to qualify for a rebate.

Step 5. Apply for Rebate: The System Owner, with assistance from the Primary Installer, must submit a complete the Application **within 90 days of installation**. Either of the Applicant Parties may complete the Application through [MassCEC's application portal](#).

All complete Applications must include:

² The MassCEC Fiscal Year runs from July 1 through June 30.

1. **Application Form** - Complete the Application through our application portal at www.masscec.com/clean-heating-and-cooling/air-source-heat-pumps.
2. **Electric Bill** – A copy of the electric bill from the Project Site from within 90 days of the date of Application, clearly displaying the name of the utility, the rate code, and the service address.³ The service address should correspond to the project site address.
3. **A Copy of the Final and Paid Invoice** – this must show:
 - a. Date of Project Completion;
 - b. Model number(s) of the installed indoor and outdoor units;
 - c. That the invoice was paid in full; and
 - d. For Projects for which the rebate is to be paid to the Primary Installer, a line item must appear on the invoice demonstrating that a discount was provided to the System Owner equivalent to the rebate remitted by MassCEC for the Project.
4. **Primary Installer Eligibility Documentation** – if the Primary Installer has not yet submitted to MassCEC the documents outlined in Section 2.4. Currently eligible Primary Installers are listed on the [participating list of ASHP installers](#).

Certain projects must also submit additional documents, as follows:

1. **Heat Load Calculation** (if applicable) - For Projects designed to supply 100% of the building's heat with no supplemental heat source, a copy of the summary report for the Manual J (residential) or Manual N (non-residential) heat load calculation, as described in Section 2.5.
2. **Income-Based Rebate Adder Eligibility Verification** (if applicable) – If applying for an Income-Based Rebate Adder, submit one of the methods of verification described in Section 2.3.
3. **Electric Resistance Displacement Adder Verification** (if applicable) – If applying for the Electric Resistance Displacement Adder, submit one of the methods of verification described in Section 2.3.
4. **Affordable Housing Verification** (if applicable) – Documentation demonstrating that 50% or more of the units are committed or deeded to households below 80% of the state's median income. See Section 2.3 for more information.
5. **Tax Documentation** (if applicable)
 - **Residential System Owners** do not need to submit W-9 forms or other tax documentation.
 - **All Non-Residential** System Owners (including all tax-exempt and government entities) must submit signed W-9 forms.
 - **Tax-Exempt Entities** (including government entities) must also submit tax-exemption certificate or IRS tax-exemption determination letter.

Step 6. Receive Rebate: When EFI begins to process the Application, program staff will send an email confirming the Application has been received.

3 For new construction, a request for electric service can be submitted instead of an electric bill, if an electric bill is not available within 90 days of Project installation.



Applications will be evaluated to ensure that they will meet the requirements stated in this Program Manual.

Applications deemed incomplete will have 30 days from the date of EFI's request for additional information to complete the Application. Incomplete Applications after that time may be rejected.

Once EFI approves the Application, MassCEC will issue written notice of the approval and amount of an Award ("Award Letter") to the System Owner and Primary Installer via email that will provide details on the Award amount. Rebates will be paid to the System Owner ("Payee") unless specifically indicated otherwise in the application process. Payment will be issued to the Payee within four (4) weeks, barring extenuating circumstances.

2. Eligibility Requirements

The System Owner, Primary Installer, and Project must meet the following eligibility requirements.

2.1. Project Site Eligibility

Residential and small-scale project applications must be submitted within 90 days of Project Completion. Applications deemed incomplete will have 30 days from the date of EFI's request for additional information to complete the Application. Incomplete Applications after that time may be rejected.

Eligible Project Sites

This Program supports Projects at residential, commercial, public, and non-profit facilities. New construction and existing building projects are both eligible for the Program. The Program allows for third-party owned systems, meaning the System Owner may be a different entity from the Site Owner.

This Program covers Projects with:

1. Up to twenty (20) single-head ASHPs; or
2. Up to twenty (20) heating tons of capacity at five (5) degrees Fahrenheit for multi-head or ducted ASHPs; or
3. A combination of up to twenty (20) single-head ASHPs and heating tons of capacity at five (5) degrees Fahrenheit for multi-head or ducted ASHPs.

Projects serving multiple units in a multifamily residential building should apply jointly with one Small-Scale Application under this Program. Multifamily projects will be subject to the same per dwelling caps as Residential Projects (as outlined in Section 3.1). A single apartment unit or condominium unit can apply individually to this Program as a Residential Project.

Multifamily residential projects that exceed the thresholds described above should apply to the [Commercial-Scale ASHP Program](#). *The Commercial-Scale ASHP Program requires pre-approval of applications, and Applicants should plan accordingly.*

Both new buildings and existing buildings are eligible. Projects must provide space heating and may provide cooling as well. Space heating must be used throughout the heating season.

Project Site Utility Service Requirement

The Project Site must be located in a utility territory that contributes to the Massachusetts Renewable Energy Trust. This includes the Massachusetts service territory of National Grid, Eversource, Unitil, and municipal light plants that have elected to pay into the Renewable Energy Trust (please see www.masscec.com/municipal-lighting-plant-communities for more information).

Project Site Energy Efficiency Audit Requirement

All existing buildings must have an energy efficiency audit completed within the past forty-eight (48) months or have an efficiency audit scheduled to occur and completed within six (6) months of Project Completion. *Applications for individual condominiums or apartments located within complexes with five (5) or more units do not require an energy efficiency audit.* MassCEC highly recommends that priority recommendations from the audit are implemented before or in coordination with the installation of the



ASHP. For qualifying locations, energy audits can be scheduled through Mass Save at www.masssave.com. New buildings do not require energy audits, although energy audits are still recommended.

2.2. System Owner Eligibility

Award Limits

Individual Project System Owners may be awarded no more than five hundred thousand dollars (\$500,000) in total Awards through this Program and the Commercial-Scale ASHP Program combined in a fiscal year. A System Owner may contact MassCEC to request an exception to this limitation. MassCEC, at its sole discretion, may elect to increase the amount available to a System Owner over and above \$500,000.

Builders and developers are eligible for rebates as System Owners and would apply through this Small-Scale Program. If a project would be impacted by the rebate cap under this Program, developers have the option to apply through the Commercial Scale Program, but *may only* do so if equipment has *not* yet been purchased and construction/installation has *not* commenced.

Multifamily Rental Property

Multifamily rental property owners with existing central heating and/or cooling systems often have centrally metered heating systems, with heating costs paid by the property owners. These owners may receive funding through this Program, however they must agree that the sum of their tenants' rent and utilities payment will not increase as a result of the Project.

2.3. Eligibility for Higher-Tiered Incentives and Adders

MassCEC offers higher-tiered incentives for Projects that meet certain criteria.

Income-Based Rebate

In the interest of increasing access to clean heating and cooling technologies such as air-source heat pumps to all residents of Massachusetts, MassCEC offers additional incentives for households with income below eighty percent (80%) and one-hundred-twenty percent (120%) of the state median income. Eligibility thresholds are determined based on household size. Eligibility for the income-based adder is based on the income of the System Owner's household. Eligibility for is based on total household income (Tax Return Form 1040 line 22), as determined by the System Owner and household members' federal income tax filings for the most recent year available.

For rental properties, the System Owner is generally the landlord. However, if the tenant is directly contracting with the Primary Installer for the installation of the Project, the tenant would be the System Owner. Each System Owner household is only eligible to receive the income-based adder at one residence.

Table 1. Income-Based Rebate Adder Thresholds by Household Size

Household Size	80% of State Median Income	120% of State Median Income
1	\$ 45,840	\$ 68,760
2	\$ 59,944	\$ 89,916
3	\$ 74,049	\$ 111,074
4	\$ 88,153	\$ 132,230
5	\$ 102,257	\$ 153,386
6	\$ 116,362	\$ 174,544
7	\$ 119,006	\$ 178,510
8	\$ 121,652	\$ 182,478
9	\$ 124,296	\$ 186,444
10	\$ 126,941	\$ 190,412
11	\$ 129,585	\$ 194,378
12	\$ 132,230	\$ 198,346
13	\$ 134,874	\$ 202,312
14	\$ 137,518	\$ 206,278
15	\$ 140,164	\$ 210,246
16	\$ 142,808	\$ 214,212
17	\$ 145,453	\$ 218,180

To receive the Income-Based Rebate, the System Owner must complete one of the following four income verification methods:

1. **Electric Bill:** When submitting the Application, include a copy of an Electric Bill with a low-income rate code from within the last six (6) months. National Grid, Unitil, and Eversource’s low-income rate code is R-2.
2. **Fuel Assistance Letter:** When submitting the Application documents, provide EFI with a copy of a Fuel Assistance Letter of Acceptance from the past twelve (12) months showing the date, System Owner’s name, and Project Site address. An example Fuel Assistance Letter can be found on the [MassCEC’s website](#).
3. **Mass Save income verification screening:** When submitting the Application documents, provide EFI with a copy of a letter demonstrating that the System Owner has participated in the income verification screening process for the Mass Save Home Energy Services Program and is eligible for enhanced incentives or the Income Eligible Program. An example letter can be found on the [MassCEC’s website](#).
4. **MassCEC Income Verification:** Prior to submitting Application documents, complete a free income verification through MassCEC’s Income Verification Portal (<http://masscecoverify.com>). The income verification process requires submission of a completed IRS Form 4506 - T for each adult tax filing (single, married filing jointly, married filing separately, and/or head of a household) within the household. MassCEC’s Income Verification Portal is run by an independent third-party that meets stringent security standards. Neither MassCEC nor EFI will ever have access to any Applicant’s financial information or tax documents.

- a. System Owners that are going through [MassCEC's Income Verification Portal](#) should select "MassCEC Income Verifier Approval" as the income verification method when prompted by the application portal.
- b. MassCEC's Income Verification Portal process takes approximately two weeks to verify income. Some verifications could take up to four weeks.
- c. Income verification should be completed prior to the Application and will be valid for a period of one year.
- d. Once the income verification process is completed, MassCEC and the System Owner will be emailed a letter confirming the System Owner is eligible for the Income-Based Rebate Adder. Once the System Owner has received the letter confirmation, the rebate Application can be submitted to EFI. The System Owner should include the letter in the online application portal.

System Owners using MassCEC's Income Verification Portal should complete the income verification process before Applications are submitted. Those using electric bills, fuel assistance letters or Mass Save letters should submit those documents with the Application.

Electric Resistance Displacement Adder

Electric resistance heating produces more greenhouse gas emissions than other forms of heating. As such, MassCEC has created an Electric Resistance Displacement Adder to further incentivize those system owners to transition toward an alternative, renewable heating source.

System Owners displacing electric resistance heating with air-source heat pumps are eligible for an adder, as outlined in Section 3. To receive the Electric Resistance Displacement Adder, the System Owner must provide one of the following methods of verification that they are displacing electric resistance heating:

- a. An electric bill with a space heating rate code; or
- b. A Mass Save home energy assessment report that indicates that the home has electric resistance heat; or
- c. Photographs of the previous electric resistance heating AND an electric bill that shows a higher electrical usage in the winter months (December through February) relative to the shoulder seasons (September through November and/or March through May).

Public and Non-Profit Rebate

Public and non-profit Projects are eligible to receive higher rebate levels. Public entities are defined as instrumentalities, authorities, agencies, departments, or political subdivisions of the Commonwealth of Massachusetts, including municipalities. Non-profits are defined as organizations under Section 501(c) (3) of the Internal Revenue Code and registered with the Massachusetts Attorney General, Non-Profit/Public Charities Division.

Affordable Housing Rebate

MassCEC and the Commonwealth of Massachusetts have a particular interest of increasing access to clean heating and cooling technologies to low- and moderate-income residents. As a result, MassCEC offers

additional ASHP incentives to affordable housing developments in Massachusetts that are owned by commercial, non-profit, or public entities (see Section 3.3). Projects may apply for the Affordable Housing Rebate Adder if the System Owner can demonstrate that 50% of the Project's units are committed or deeded to households at or below 80% of the state's median income, using one of the following methods:

- 1) An eligibility letter from the Low-Income Energy Affordability Network's ("LEAN") Low-Income Multifamily ("LIMF") Energy Retrofits Program. See <http://leanmultifamily.org/> for more details.
- 2) A deed restriction that explicitly states the development has reserved at least fifty percent (50%) of the units for households earning eighty percent (80%) or less of SMI. If it is not explicit, then Applicants will need to provide item 1, 3, or 4 instead.
- 3) For housing shelters, a letter from the Executive Director or another individual with signatory authority stating that the property is used as a housing shelter.
- 4) Other forms of documentation as determined by MassCEC on a case-by-case basis.

Higher tier incentives are not cumulative and projects owned by Public and Non-Profit entities utilizing the Affordable Housing Rebate are not eligible for additional funds through a Public and Non-Profit Rebate.

2.4. Primary Installer Requirements

Installer Eligibility

To participate in the Program, Primary Installers must:

1. Read and submit a **signed copy** of the [Primary Installer Agreement](#) (also available on the [Installer Resources webpage](#)).
2. Provide MassCEC with a **letter or certificate from the manufacturer** verifying that they have successfully completed at least four (4) hours of manufacturer training within the last five (5) years for the products they plan on installing under the Program. Primary Installers may submit additional brand certifications throughout the Program. Please contact the manufacturers directly for information and scheduling of training.
3. **Agree to inspections** of completed Projects, to ensure Projects meet all Program requirements.

If multiple Primary Installers work for the same company, each Primary Installer must submit a separate Primary Installer Agreement with evidence of their training.

All ASHPs must be installed by a licensed contractor in accordance with the National Electric Code and manufacturer's specifications, and must conform to all applicable municipal, state, and federal codes, standards, and regulations, as well as Program requirements. As part of the Terms and Conditions, the System Owner and Primary Installer must certify that the Project has received approval from the local building inspection authority, as applicable.

Installation Inspections

MassCEC reserves the right to conduct inspections to Projects prior to payment of the Award. MassCEC typically inspects at least two Projects for each Primary Installer but also will elect to inspect Projects at random, due to suspected issues, or based on Project complexity. If the inspector detects an issue with

an ASHP installation, MassCEC reserves the right to suspend current Applications and/or stop accepting Applications from the Installer.

2.5. Project Technology and Design Requirements

In order to be eligible for a rebate, Projects must meet the following requirements:

i) Applicable Technologies

This Program is open to the following technologies with rated heating capacities up to 65,000 BTU/hour at 47 °F (dry bulb):

- Air-to-air, split system heat pumps;
- Single-head, multi-head, and central systems;
- Ducted and ductless systems (both single and multi-head).

Note: Products must be listed on the Qualified Products List to be eligible.

The following technologies are NOT eligible for the Program:

- Cooling only units;
- Single-stage heat pumps;
- Variable-refrigerant flow (please see the [Commercial Air-Source Heat Pump Program](#));
- Ground-source heat pumps (please see [Residential and Small-Scale Ground-Source Heat Pump Program](#)); and
- Air-to-water heat pump systems.

ii) Equipment Requirements

Only Projects installing qualifying high-efficiency, cold-climate ASHPs are eligible for rebates through this Program. This Program defines a qualifying cold-climate ASHP (“Qualified Product”) as an ASHP that:

1. Meets the requirements of the [Cold Climate Air Source Heat Pump Specification](#) published by Northeast Energy Efficiency Partnerships (“NEEP”) and is listed on NEEP’s website;
2. Meets the Qualified Equipment Performance Requirements listed in the table below;
3. Is listed as ENERGY STAR certified;
4. Has a variable capacity compressor; and
5. Both indoor and outdoor units are part of an AHRI matched system.

Qualifying Equipment Performance Requirements		
Minimum Performance Requirement	Single-Head Air-to-Air	Multi-Head/Central
COP @ 5° F (at maximum capacity)	1.75	1.75
Percent of Rated Heating Capacity Delivered at 5°F⁴	100%	100%
HSPF	10	10
SEER	20	17
EER	12.5	12.5

MassCEC will occasionally update these Performance Requirements to reflect the highest efficiency products that are available on the market.

All ASHPs must be installed by licensed contractors in accordance with the National Electric Code and manufacturer’s specifications, and must conform to all applicable municipal, state, and federal codes, standards, and regulations, as well as Program requirements. The System Owner must certify that the Project has received approval from the local building inspection authority as part of the Terms and Conditions.

iii) Qualified Equipment

The current and up-to-date list of qualifying equipment (“Qualified Product List”) may be found on the [Eligible Air-Source Heat Pumps](#) and [Installer Resources](#) webpages.

Manufacturers that believe they have a qualifying ASHP must submit documentation directly to NEEP for review prior to incorporation into MassCEC’s Program. Please see NEEP’s [Cold Climate Air Source Heat Pump Specification](#) page for submission details.

Once a product is listed on NEEP’s website as meeting the Cold Climate Air Source Heat Pump Specification, MassCEC will review NEEP’s data and determine if it meets MassCEC’s Performance Requirements. MassCEC reserves the right to determine the content of the Qualified Product List. MassCEC may add or remove equipment from this list at any time. An ASHP model must be on the current version of Qualified Product List at the time an Application is submitted to be eligible for a rebate.

iv) Additional Whole-Building Equipment Eligibility

All ASHP Projects that are designed to supply 100% of a building’s heat load with no supplemental heat source (“Whole-Building ASHP Systems”) must submit a building peak heating capacity calculation calculated using the Air Conditioning Contractors of America (ACCA) Manual J (for residential) or Manual N (for commercial) building heat load calculation method as part of the Application.

Primary Installers must submit the summary page of the applicable heat load calculation of the building’s peak heat load at the 99% dry bulb heating design temperature for the most relevant ACCA location. All

⁴ Rated Heating Capacity refers to the higher of the AHRI rated heating capacities at either 47° F or 17° F. The heating capacity delivered at 5° F refers to the maximum heating capacity at 5° F.

listed Massachusetts locations and their heating design temperatures are provided below. Heating set temperatures may be between 68 and 72 degrees Fahrenheit.

Massachusetts Location	Heating Design Temperature in Degrees Fahrenheit	Massachusetts Location	Heating Design Temperature in Degrees Fahrenheit
Barnstable	14	Martha's Vineyard	12
Boston	12	New Bedford	12
Buzzards Bay	17	Norwood	9
Chatham	16	Otis	13
Clinton	2	Pittsfield	-3
Fall River	9	Plymouth	10
Falmouth Area	14	Provincetown	18
Framingham	6	South Weymouth	10
Gloucester	5	Springfield	0
Greenfield	-2	Taunton	9
Lawrence	9	Weymouth	11
Lowell	1	Worcester	6

All Whole-Building ASHP Systems must meet a minimum of 100% of the building total heating load as designated in the Manual J or Manual N heat load calculation if there is no supplemental heating system.

v) Warranty

Any Project receiving an Award under the Program must be covered by a minimum five (5) year manufacturer's warranty for both parts and compressor. Furthermore, the Primary Installer must agree to fix any system defects or significant workmanship issues identified during the first year after the Project Completion date.

2.6. Monitoring

MassCEC may choose to monitor a subset of systems installed under this Program. To be eligible for an Award under this Program, the System Owner must agree to allow metering and monitoring to be conducted on their Project for up to twenty-four (24) months after installation, if requested. The System Owner will be required to submit utility and fossil fuel bills for two (2) years prior to installation (for existing buildings) and for the duration of the performance monitoring. Monitoring equipment will be paid for and installed directly by contractors to MassCEC with no direct cost to the System Owner. Data will be collected and analyzed for Program evaluation purposes and will not impact the Award.

3. Rebates and Awarding

The rebate may be combined with any other local, state or federal incentives, and Applicants are encouraged to do so where possible. MassCEC will not provide funding that would, in MassCEC's sole determination, exceed total Project costs. Total Project costs shall include all costs presented in the Application, less all other available incentives, including any state or federal rebates, subsidies, and tax

incentives, discounted to present value where necessary. MassCEC will evaluate these situations on a case-by-case basis, and reserves the right to reduce any Award projected to exceed total Project costs by an amount sufficient to prevent the excess. System Owners must declare this rebate if applying for a Mass Save HEAT Loan. Rebates will be paid to the System Owner unless otherwise noted in the “Project Notes” section at the bottom of the Application Form that the rebate will be paid to the Installer Applications for rebates to be paid to the Installer must include an invoice that reflects the discounted cost of equipment to the System Owner.

3.1. ASHP Program Rebate Levels

Rebate levels for qualifying Projects are outlined in the table below. They are subject to change at the sole discretion of MassCEC. Applicants should check the [Program webpage](#) to confirm that they are reviewing the most recent version of the Program Manual. The rebate structure is summarized in the table below, with additional detail provided in the text following the table.

Rebate Levels Through October 31, 2018 (date of application submission)

Rebate Type	Single-Head System (per System)	Central or Multi-Head Systems (per 12,000 BTU/hr*)	Maximum # of outdoor units eligible	Maximum capacity* (BTU/hr) eligible	Electric Resistance (“ER”) Displacement Adder (per System or per 12,000 BTU/hr*)	Maximum Rebate per Project Site (without ER Displacement Adder/ with ER Displacement Adder)
Residential						
Base Rebate	\$625	\$625	3	48,000	\$300	\$2,500/\$3,700
120% Income-Based Rebate	\$800	\$800	3	48,000	\$300	\$3,200/\$4,400
80% Income-Based Rebate	\$1,000	\$1,000	3	48,000	\$500	\$4,000/\$6,000
Small-Scale Entities						
Base Rebate	\$625	\$625	20	240,000	\$300	\$12,500/\$18,500
Public/Non-Profit Rebate	\$800	\$800	20	240,000	\$300	\$16,000/\$22,000
Affordable Housing Rebate	\$1,500	\$1,500	20	240,000	\$300	\$30,000/\$36,000

*For the purposes of determining rebate levels for central or multi-head systems, MassCEC uses the system’s maximum heating capacity (BTU/hr) at 5° F.

Rebate Levels Starting on November 1, 2018 (date of application submission)

Rebate Type	Single-Head System (per System)	Central or Multi-Head Systems (per 12,000 BTU/hr*)	Maximum # of outdoor units eligible	Maximum capacity* (BTU/hr) eligible	Electric Resistance ("ER") Displacement Adder (per System or per 12,000 BTU/hr*)	Maximum Rebate per Project Site (without ER Displacement Adder/ with ER Displacement Adder)
Residential						
Base Rebate	\$500	\$500	3	48,000	\$300	\$2,000/\$3,200
120% Income-Based Rebate	\$750	\$750	3	48,000	\$300	\$3,000/\$4,200
80% Income-Based Rebate	\$1,000	\$1,000	3	48,000	\$500	\$4,000/\$6,000
Small-Scale Entities						
Base Rebate	\$500	\$500	20	240,000	\$300	\$10,000/\$16,000
Public/Non-Profit Rebate	\$750	\$750	20	240,000	\$300	\$15,000/\$21,000
Affordable Housing Rebate	\$1,500	\$1,500	20	240,000	\$300	\$30,000/\$36,000

1. **Base Rebate.** Available to all Projects meeting the eligibility requirements outlined in Section 2, including installing eligible equipment listed Section 2.5.

2. **120% Income-Based Rebate.** Available to all Projects meeting the *Base Rebate* requirements **and** the income eligibility requirements for households below 120% of the Massachusetts state median income. (Section 2.3).

3. **80% Income-Based Rebate.** Available to all Projects meeting the *Base Rebate* requirements **and** meeting the income eligibility requirements for households below 80% of the Massachusetts state median income (Section 2.3).

4. **Electric Resistance Displacement Adder.** Available to Projects that are replacing existing electric-resistance heating systems with air-source heat pumps, provided that one of the verification methods described in Section 2.3 is submitted as part of the application.

5. **Public/Non-Profit Rebate.** Available to Projects with public or non-profit System Owners, as outlined in Section 2.4.

6. **Affordable Housing Rebate.** Available to commercial entities meeting requirements as outlined in Section 2.4.

3.2. Residential Rebate Limits

Residential Applicants may install a combination of single-head and multi-head systems. Prior to 11/1/2018, each residence is eligible for a maximum rebate of \$2,500 per Project Site at the base rebate level, \$3,200 with the 120% Income-Based Rebate, or \$4,000 with the 80% Income-Based Rebate. If a project is displacing electric resistance, the maximum rebate per Project Site installed prior to 11/1/2018 is \$3,700 at the base rebate level, \$4,400 at the 120% Income-Based Rebate level, or \$6,000 at the 80% Income-Based Rebate level. Details on rebate amounts after 10/31/2018 are provided in Section 3.1.

- Rebates for **single-head ductless systems** are available to support the first three units installed. Residences may install more than three systems, though the rebate will only support the first three installed.
- Rebates for **central or multi-head systems** are limited to 48,000 BTU/hr of heating capacity (maximum heating capacity at 5° F). Residences may install systems with greater capacity, though the rebate will only support the first 48,000 BTU/hr of heating capacity installed.

3.3. For-Profit, Public, Non-Profit, and Affordable Housing Rebate Limits

For-Profit, Public, Non-Profit, and Affordable Housing Applicants may install a combination of single-head and multi-head systems. Prior to 11/1/2018, each For-Profit Project Site is eligible for a maximum rebate of \$18,500. Each Public and Non-Profit Project Site is eligible for a maximum rebate of \$22,000. Each Affordable Housing Project Site is eligible for a maximum rebate of \$36,000. Details on rebate amounts after 10/31/2018 are provided in Section 3.1.

- Rebates for **single-head ductless systems** are available to support the first 20 units installed. Project Sites may install more than 20 systems, though the rebate will only support the first 20 installed.
- Rebates for **central or multi-head systems** are limited to 240,000 BTU/hr of heating capacity (maximum heating capacity at 5° F). Project Sites may install systems with greater capacity, though the rebate will only support the first 240,000 BTU/hr of heating capacity installed.

3.4. Application Evaluation Criteria

Applications will be evaluated to ensure that they meet the eligibility requirements stated in this Program Manual. MassCEC reserves the right to accept or reject Applications based on completeness, qualitative criteria, and available funding; to assign inspections; to make no Awards; to award less than the Applicant requests; and/or to award less than the maximum amount of funds potentially available through this Program.

If the Application meets all requirements of this Program and funding remains available, MassCEC will issue the rebate payment to the Payee via mail.



3.5. Contact Information

For questions on the eligibility requirements of the Residential ASHP Program, application portal, application inquiries, or follow-ups, please contact the application portal help desk at 866-266-3174 or masscec_rebates@efi.org.

For questions on the Residential ASHP Program, please visit the Program webpage at <http://www.masscec.com/residential/clean-heating-and-cooling>, email the Residential ASHP mailbox at ASHP@masscec.com, or call 617-315-9300 and Press '2' for Air Source Heat Pumps.

For general inquiries about ASHP technology, other Clean Heating & Cooling programs, or MassCEC in general, please visit <http://www.masscec.com/residential/clean-heating-and-cooling>, email the Residential ASHP mailbox at ASHP@masscec.com, or call 617-315-9300.

4. Program Definitions

80% Income-Based Rebate: The increased incentive level for which residential System Owners with household incomes less than eighty percent (80%) of the state median income are eligible.

120% Income-Based Rebate: The increased incentive level for which residential System Owners with household incomes between eighty percent (80%) and one-hundred-twenty percent (120%) of the state median income are eligible.

Affordable Housing Adder: The increased Rebate amount for System Owners installing ASHP systems at sites that meet the Program’s criteria for affordable housing developments.

Air-Conditioning, Heating, and Refrigeration Institute (“AHRI”): A trade association representing manufacturers of heating, ventilation, air-conditioning, refrigeration, and water heating equipment. AHRI provides the database of equipment performance specifications which is used in this program to determine the rebate amount.

Air-to-Air Heat Pumps: These heat pumps utilize outside air as the heat sink and provide conditioned air to the indoor space.

Air-to-Water Heat Pumps: These heat pumps use outside air as the heat sink and utilize water to condition the indoor space.

Applicant: The Applicant is the System Owner who prepares and submits the Application. The Primary Installer is responsible to work with the System Owner to prepare and submit the Application.

Applicant Parties: The Primary Installer and the System Owner, who together are responsible for providing the content of and signing the Application.

Application: Application submitted by the System Owner with the assistance of the Primary Installer for an Award.

Award: Rebate funding awarded to a System Owner and to be paid by MassCEC to the System Owner under the Program based on a submitted Application that has been approved by MassCEC.

Award Letter: Written notice (including via email) from MassCEC informing the Applicant Parties of the approval and the amount of the Award.

BTU/hr: This common unit of thermal power capacity represents one British Thermal Unit (“BTU”) of thermal energy delivered per hour.

Central ASHPs: Central ASHPs condition air or water at a central location and distribute it throughout the building utilizing a distribution system.

Coefficient of Performance (“COP”): The coefficient of performance of a heat pump is a ratio of heating provided to electrical energy consumed.

Ductless (or non-ducted) ASHPs: These ASHPs utilize refrigerant directly at the conditioning unit and do not require ducts to transport conditioned air. These systems typically have higher efficiencies than ducted ASHPs.

Electric Resistance Displacement Adder: The rebate adder for which System Owners replacing electric resistance heating are eligible.

Electric Resistance Heating: Heating systems which produce thermal energy by passing an electric current through a high resistance material, converting electrical energy into heat.

Energy Efficiency Ratio (“EER”): A measure of efficiency in the cooling mode that represents the ratio of total cooling capacity to electrical energy input.

Heating Ton: A common unit of thermal energy representing twelve-thousand (12,000) British Thermal Units (BTUs) of thermal energy delivered per hour for the purpose of heating.

Heating Seasonal Performance Factor (“HSPF”): This seasonal heating efficiency rating is a metric for overall efficiency over the course of a standard heating season. It is a ratio of BTU heat output over the heating season to watt-hours of electricity used.

Manual J/Manual N Heat Load Calculation: The calculation of a building’s heat load using the ACCA Manual J (Residential)/Manual N (Commercial) methodology. This heat load represents a building’s heating and cooling capacity needed for a heating and/or cooling unit under design conditions.

Multi-Head ASHP: These ASHPs have one outdoor compressor unit connected to multiple indoor conditioning units.

Non-Profit Entities: Non-profits are defined as organizations under Section 501(c) (3) of the Internal Revenue Code and registered with the Massachusetts Attorney General, Non-Profit/Public Charities Division.

Terms and Conditions: The Terms and Conditions is the document that defines the legal terms that will govern the Award and sets forth the respective roles and responsibilities of the parties specifically as they relate to the Project that is the subject of the Award. The Terms and Conditions should be signed by the System Owner.

Payee: The Payee is the designee to receive the rebate for a Project that has achieved Project Completion.

Primary Installer: The Primary Installer is the primary entity responsible for the installation of the Project. The Primary Installer is directly responsible for turnkey project management and installation work, although aspects of the installation work may be sub-contracted.

Program Documents: The Program Documents consist of the Program Manual, Application, Participation Agreement, and Award Letter.

Project: One or more ASHP systems installed at a residence or building.



Project Site: The building being served by the ASHP Project.

Project Completion: The status of a Project at the stage when major ASHP components have been fully installed. Supplemental service or modifications do not change the Project Completion status.

Project Completion Date: The date when major ASHP components have been fully installed. Supplemental service or modifications do not change the original Project Completion Date.

Public Entity: Public entities are defined as instrumentalities, authorities, agencies, departments, or political subdivisions of the Commonwealth of Massachusetts, including municipalities.

Public and Non-Profit Adder: The increased incentive level for which public and non-profit entities are eligible. This adder is not available for third-party owned systems located at public and non-profit facilities.

Qualifying Equipment: ASHPs that meet the Applicable Technologies, Equipment Eligibility, and Performance Requirements stated in this Program Manual, as well as the NEEP Cold Climate Air-Source Heat Pump Specification.

Seasonal Energy Efficiency Ratio (“SEER”): This seasonal cooling efficiency rating is a metric for overall efficiency over the course of a standard cooling season. It is a ratio of BTU cooling output over the cooling season to watt-hours of electricity used.

Single-Head ASHP: These ASHPs have one outdoor compressor unit connected to a single indoor conditioning unit.

System Owner: An individual, organization, business, or government entity who, together with the Primary Installer, applies to MassCEC for a Program rebate. The System Owner is the owner of the Project that is supported by the Program rebate.

Third-Party Inspector: An independent third-party engaged by MassCEC to inspect completed projects and review project designs.

Whole-Building ASHP Systems: ASHP Projects that are designed to supply 100% of a building’s heat load with no supplemental heat source.

5. General Conditions

5.1. Notice of Public Disclosure

5.1.1 General Statement on Public Records

As a public entity, MassCEC is subject to Massachusetts' Public Records Law, codified at Chapter 66 of the Massachusetts General Laws ("Public Records Law"). Applicants acknowledge and agree that any documentary material, data, or other information submitted to MassCEC are presumed to be public records. An exemption to the Public Records Law may apply to certain records, including materials that fall under certain categories under a statutory or common law exemption, including the limited exemption at Massachusetts General Laws Chapter 23J, Section 2(k) regarding certain types of confidential information submitted to MassCEC by an applicant for any form of assistance. By submission of an application, Applicants acknowledge and agree that MassCEC, in its sole discretion, shall determine whether any particular document, material, data or other information is exempt from or subject to public disclosure. Thus, MassCEC urges Applicants to carefully consider what documents, materials, data and other information is submitted to MassCEC in connection with this Program.

In line with Public Records Law requirements, **MassCEC generally considers the following types of information as exempt:**

- Personal email addresses
- Personal phone numbers
- Electric bills

5.1.2 Open Checkbook

System Owner agrees and acknowledges that MassCEC shall have the right to disclose the name of any Payee, the amount of the payment under the Program and any other information it may deem reasonably necessary on Open Checkbook, the Commonwealth of Massachusetts' online database of state spending.

5.2. Contractual Requirements

The Terms and Conditions defines the legal terms that will govern the Award and sets forth the respective roles and responsibilities of the parties specifically as they relate to the project that is the subject of the Award. The Terms and Conditions is designed to be executed upon submitting an Application and become effective as of the date indicated on the Award Letter from MassCEC. This contract language is non-negotiable. Accepting the Terms and Conditions at the time of Application does not entitle the Applicant Parties to an award for funding by MassCEC.

No grant funds may be used to award or pay grants for Projects that reach Project Completion prior to the Program launch date or after the Program deadline.

5.3. Waiver Authority

MassCEC reserves the right, at its sole discretion, to waive minor irregularities in submittal requirements, to request modifications of the Application, to accept or reject any or all applications received, and/or to cancel all or part of this Program at any time prior to Awards.

5.4. Disclaimer

This Program Manual does not commit MassCEC to award any funds, pay any costs incurred in preparing an application, or procure or contract for services or supplies. MassCEC reserves the right to accept or reject any or all applications received, negotiate with all qualified Applicants, cancel or modify the Program Manual in part or in its entirety, or change the application guidelines, when it is in its best interests.

5.5. Changes/Amendments to the Program Manual

The requirements listed herein are subject to change without notice to potential Applicant Parties. This Program Manual has been distributed electronically using MassCEC's website. It is the responsibility of Applicant Parties to check MassCEC's website for any addenda or modifications to the Program Manual to which they intend to respond. MassCEC, the Commonwealth of Massachusetts, and its subdivisions accept no liability and will provide no accommodation to an Applicant who submits an Application based on an out-of-date Program Manual and/or related document.