
Massachusetts Alternative Energy Credits (AECs) for Air Source Heat Pumps for Home, Apartments and Multi-family

The Alternative Portfolio Standard (APS) was established in Massachusetts to increase energy efficiency and reduce the need for conventional fossil fuel-based power generation in order to reduce greenhouse gas emissions by incentivizing energy savings technologies through environmental credits. Originally, the program included only a few technologies, principally, Combined Heat and Power (CHP), but was recently expanded to include renewable thermal technologies including Air Source Heat Pumps (ASHPs). Given the market value of the program's credits, AECs, qualified ASHP systems can achieve significantly higher financial returns while reducing carbon emissions.



Eligibility Criteria

Under the small renewable thermal technologies program of the Massachusetts APS, the Department of Energy Resources (DOER) has established the following requirements for an ASHP system to qualify:

- have an operational date of January 1, 2015, or later
- have an output capacity of less than 134,000 Btu per hour
- be on the DOER's eligibility list of models or meet efficiency standards
- in the case of replacing an existing heating system without a back-up system, the ASHP must supply 100% of the building's heat
- in the case of replacing an existing heating system with a back-up system, the ASHP must supply 90% of the building's heat, distribute heat to all space-conditioned areas, and be at least 50% of the capacity of the remaining back-up system.
- in the case of new construction, the ASHP must supply 100% of the building's total annual heating load (no supplemental non-renewable heat sources allowed)

The owner of the ASHP system receives 10 years of AECs upfront in accordance with DOER formulas. Systems may also be eligible for multipliers of credits based on a set of criteria regarding the specific building that the ASHP system is being installed.

Application

The application for qualification in the MA APS small renewable thermal program for ASHP systems includes, but is not limited to: site and facility information, contact information, equipment specifications, design specifications, NEPOOL GIS information, AEC service agreement (optional), Home Energy Rating System certification (optional), Affidavit of Zero Energy (optional, attachment), Passive House certification (optional). Intermediate and large ASHP systems require much more documentation such as process flow and 1-line electrical drawings.

Green Harbor Energy

Green Harbor Energy has qualified more ASHP systems for the MA APS program than any other organization. In fact, over 75% of the qualified ASHP systems to-date have been qualified by Green Harbor Energy. We provide "soup-to-nuts" services from collecting all relevant information through our online portal, evaluating eligibility, submitting the application for qualification, receiving credits in our NEPOOL GIS account, aggregating your credits with hundreds of other clients for greater selling power and higher prices, actively selling forward in the market for higher prices, contracting with buyers, delivering credits to buyers, and issuing payments to our clients.

For more information

Please contact: Tim Graham at (774) 244-0177 or tgraham@GreenHarborEnergy.com

Online Portal: <https://greenharborenergy.com/portal.html>

Small Air Source Heat Pumps in the Massachusetts Alternative Portfolio Standard



The Alternative Energy Portfolio Standard (APS) provides an incentive to Massachusetts homeowners and businesses to install eligible alternative energy systems that lower greenhouse gas emissions and increase energy efficiency across the Commonwealth. The APS is a market based program that requires a portion of the electric load in Massachusetts be met via eligible technologies. Generation Unit owners receive an incentive by selling Alternative Energy Certificates (AECs), which they accrue based on their energy generation, to entities in Massachusetts with a compliance obligation.

Small (residential scale) Air Source Heat Pumps (ASHP) are classified as any system with an output capacity less than 0.134 MMBtu/hr

ASHPs in the Alternative Energy Portfolio Standard

ASHPs that meet all eligibility requirements determined by the Department of Energy Resources can become qualified to receive AECs based on the energy their system generates. AECs are only generated when the system is in heating mode, however there is no restriction on the use of the system for cooling. Any ASHP seeking qualification under the APS must meet a minimum of 90% of the annual heat load of the building and be able to distribute that heat throughout the building.

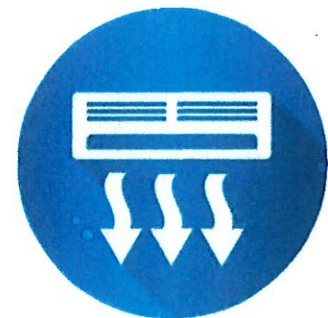
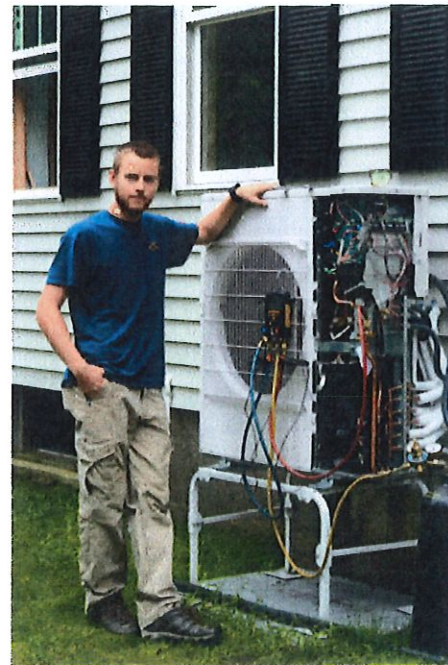
What are Alternative Energy Certificates (AEC)?

- AECs represent the environmental attributes of energy generated by a renewable or alternative Generation Unit
- Every AEC represents 3,412,000 British thermal units (or 1 MWh equivalent) of net useful thermal energy
- Typically through an aggregator, system owners can sell AECs generated by their system in the market to receive a monetary incentive

Key Equipment Eligibility Criteria

ASHPs must meet DOER's eligibility criteria. A comprehensive list of eligibility criteria can be found in the APS regulations and guidelines. Key criteria include that ASHPs must:

- Be ENERGY STAR™ certified
- Meet the Cold Climate Air Source Heat Pump Specification Version 2.0 published by Northeast Energy Efficiency Partnerships effective January 1, 2017 or any version thereafter
- Be part of an Air-Conditioning, Heating, & Refrigeration Institute matched system
- Have a variable speed compressor
- Have a Coefficient Of Performance (COP) greater than or equal to 1.9 at 5 degree Fahrenheit
- Have a COP greater than or equal to 2.5 at 17 degree Fahrenheit





Process for signing up a Multi-family ASHPs for DOER Alternative Energy Credits

- 1) Project completed 2015-present.
- 2) GHE verified the ASHP outdoor condensers are on DOER approved list.
- 3) Provide the following information.
 - a. Make & model of outdoor condensers.
 - b. Name of installer & project completion date
 - c. Apartment #s & square footage
 - d. Utility incentive amount
- 4) Sign 2-page DocuSign agreements.
- 5) Green Harbor Energy handles the rest of the application process.
- 6) GHE delivers check based on timeline below.

MA Department of Energy-Alternative Energy Credit Program link

<https://www.mass.gov/info-details/qualifying-air-source-heat-pump-in-the-aps>

Feb 15 th deadline	June payment
May 15 th deadline	August payment
August 15 th deadline	November payment
November 15 th deadline	February payment

