

RECs Fact Sheet

How RECs account for renewable energy in Massachusetts.

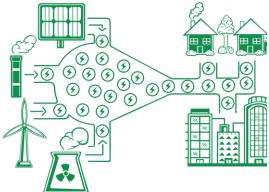
What Are RECS?

REC stands for **Renewable Energy Certificate**. A REC acts as proof of purchase for the attributes of renewable energy generation. One REC is equal to one megawatt-hour (MWh) of renewable energy generated and delivered to the grid. The purchase of RECs is important because of how the grid operates. The grid acts as a large pool. Generation sources like solar, wind, nuclear, natural gas, etc. produce electrons that flow into the pool. All the sources mix together in the pool and the electrons are distributed to customers as electricity. Since everything is mixed together in the pool, it is impossible to differentiate which electrons come from where. RECs ensure that a customer can claim the renewable attributes of the electricity they are receiving from the grid. Our electric grid was restructured in the 1990's so that electric utilities only distribute electricity, they do not own the generation. This means that we can only account for electricity emissions when they arrive to the end user, such as your house in the image below.

Why Are They Important?

RECs are Massachusetts' only way of tracking greenhouse gas emissions and renewable energy distribution. Massachusetts is one of the states that has committed to a clean energy plan of being 80% carbonfree by 2050, despite the federal government's intention of pulling out of the Paris Agreement. In order to achieve the state's 2050 goal, more local renewable energy projects must be created. The **Renewable Energy Portfolio Standard (RPS)** was created for this purpose. It began in 2003 and required that 1% of a utility's energy portfolio comes from renewable sources. Every year that percentage goes up by 1%. The RPS is currently at 14% (as of 2019).

Electricity Pool





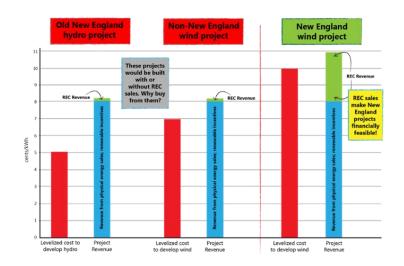




Currently the RPS only applies to Investor Owned Utilities (IOUs, like Eversource and National Grid). IOUs account for roughly 85% of the state's electricity. The other 15% consists of 41 Municipal Light Plants (Munis), which are not covered by the RPS.

Utilities are accountable for delivering the minimum amount of renewable electricity to their customers. They purchase RECs in order to comply with the RPS. For renewable projects in MA, RECs are essential for the viability of the project. In MA, it is more expensive to develop renewable projects than in other states, therefore renewable projects cannot generate enough revenue for private developers to finance the project solely from selling electricity (See Green Energy Consumer Alliance Chart to the right). Private developers rely on REC sales to the utilities in order to make up the difference. REC sales ensure that projects are financially viable and future renewable facilities get financed. As the RPS and the need for RECs increases, the idea is that the increased demand will require that new renewable energy facilities come online.

Financing Renewable Energy



UPDATE: In 2020 the RPS will begin increasing by 2% for 10 years. In 2030 it will drop back down to 1% to result in 55% renewables in 2050.

More Information:

You can learn about the different types of RECs and solar incentives here:

SMART: https://www.mass.gov/solar-massachusetts-renewable-target-smart

SRECS: https://www.mass.gov/guides/solar-carve-out-and-solar-carve-out-ii-srec-ii-

statement-of-qualification-application

REC Classes: https://www.mass.gov/service-details/program-summaries

Contact Us:



WEBSITE

EMAIL

PHONE (617) 953-4954 **ADDRESS**

Boston, MA, 02108

