



Renewable Portfolio Standard (RPS) Frequently Asked Questions

What is the RPS?

The Renewable Portfolio Standard (RPS) is a key policy in Massachusetts that helps drive demand for renewable electricity. It's a mandate on all investor-owned utilities (e.g., Eversource, National Grid, Unitil) and competitive retail suppliers to source a certain percentage of their annual electricity supply from qualifying renewable resources. In 2017 this requirement is 12%. Currently the RPS increases 1% per year, indefinitely.

What are qualifying renewable resources?

The Green Communities Act enacted in 2008 created two “classes” of qualifying technology: Class I and Class II. *Class I* simply means “new” and refers to anything built after December 31, 1997. As a comparison, resources installed before January 1, 1998 are considered Class II.

[Qualifying resources](#) include solar, wind, small hydro, digester gas, geothermal.

How has the RPS benefitted Massachusetts?

The RPS has been integral to our greenhouse gas emission reductions. It has also been a vital part of clean energy job growth in the Commonwealth; according to the Mass. Clean Energy Center, over 100,000 Massachusetts residents are employed in the clean energy industry and it is our fastest growing sector. Renewable energy supply also contributes to energy price stability.

What are RECs?

Delivery of renewable energy to the grid is verified through the use of Renewable Energy Certificates (RECs). Electricity generators must be certified by the state, and earn one REC for each Megawatt hour (1,000 kWhs) of electricity produced. RECs represent the green attributes of a renewable project and can be sold with the electricity or separately. RECs—or rather the environmental attributes they represent—have their own value, separate from the value of the electricity generated.

Why is the RPS important?

RPS is a key driver of renewable energy demand and development. According to the [U.S. RPS 2016 Annual Status Report](#) released by Lawrence Berkeley National Laboratory, 60% of U.S. renewable electricity generation and 57% of capacity since 2000 has come online because of state RPS requirements. Massachusetts is required to reduce greenhouse gas (GHG) emissions per the [Global Warming Solutions Act \(GWSA\)](#). Increasing our renewable energy supply through policies like the RPS is necessary to maintain compliance with the GWSA, which was enacted to address climate change.

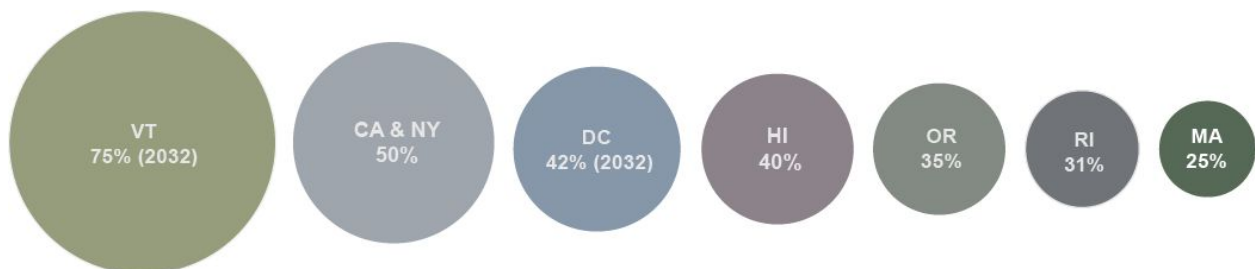
While renewables have achieved cost parity with fossil fuels in many parts of the country, long-term policy support is required in the Northeast in order to ensure the continued, and increasing, purchase of renewable energy when natural gas prices are low. If it were not for the RPS, renewable energy purchases would decline during periods of natural gas surplus and it would be impossible for Massachusetts to meet the GWSA GHG reduction requirements. By requiring the purchase of RECs, a market signal is sent to investors that it is worth investing in renewable energy projects. As long as demand continues to increase, the RPS obligation ensures that renewable energy capacity will continue to grow.

How does Massachusetts compare to other states?

While we used to be a leader, other states are now surpassing us. The Massachusetts RPS increases 1% each year; as of 2017 it is 12%. At this rate of increase the RPS will only require 25% renewable energy by 2030. This is much lower than several states that have recently increased their RPS requirements.

2030 state requirements: although each state defines RPS compliant resources differently, here's how the current Massachusetts RPS compares to the 2030 requirements for other leading states:

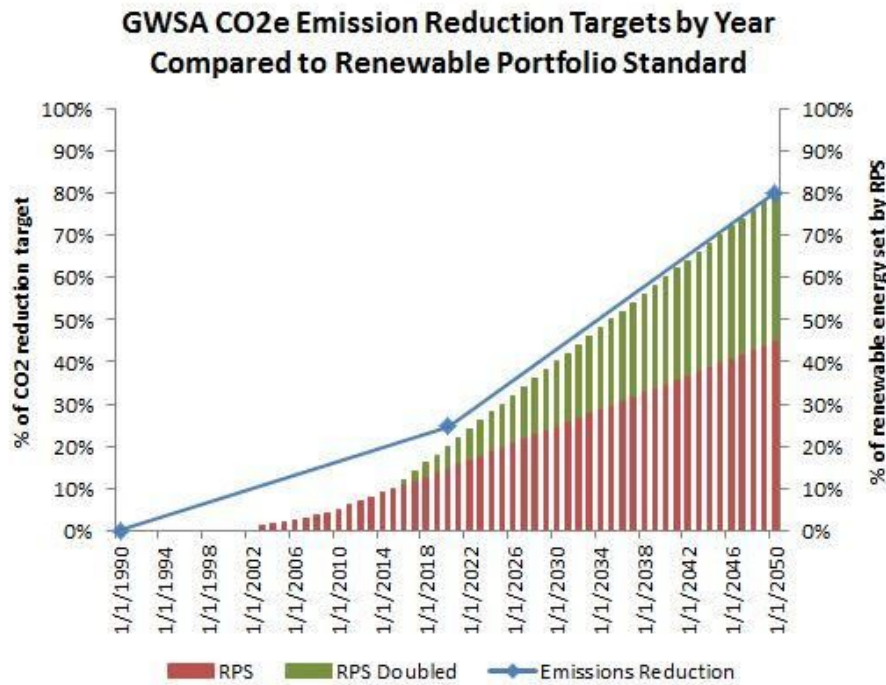
2030 Mandate



Why is it important to increase the RPS?

Three key reasons.

First, if we do not increase the rate of RPS growth, we will not hit our legally mandated GWSA targets. Increasing the RPS growth rate will allow us to hit our 2008 requirement of 80% greenhouse gas reductions by 2050. Compare the current law (in red) with an increased RPS (in green) in the figure below.



Second, the 2016 energy bill passed by the Mass. legislature required utilities to solicit and purchase 1,600 megawatts of offshore wind by 2027, as well as several hundred megawatts of additional Class 1 resources. This is terrific for climate change, jobs and our local economy. It also means, however, that no additional renewable energy development will be necessary to achieve the RPS targets at their current levels. In other words, the supply of renewable energy will outstrip the demand (as set by the RPS), starting in 2018. Without additional demand, the REC market will no longer provide a price signal that encourages investor participation. Existing projects will falter, and investors will exit the market. Instead of flourishing alongside other renewable energy projects, offshore wind will crowd them out. This will have a negative impact on the regional economy and jobs.

Finally, increasing the RPS (and therefore renewable energy generation) can protect Massachusetts residents from future increases and volatility in natural gas prices. Massachusetts has become over-reliant on natural gas—according to the Energy Information Administration (EIA), [64% of our electricity](#) was generated by natural gas in 2015. Modelling shows that if natural gas prices rise significantly as [some expect](#), then increasing the RPS could save New England consumers between \$100 million and \$2.1 billion between 2018 and 2030.

Opponents say increasing the RPS will cause large increases in energy bills. Is that true?

No. Modelling of different RPS scenarios found an average monthly residential electricity bill increase of 15 cents for a 2% RPS increase and only \$2.17 per month with a 3% MA RPS increase combined with a 1.5% increase in Connecticut's RPS (the combined effect is roughly equivalent to a 3.75% increase in Massachusetts alone). A minimal bump in our electricity bills is a small price to pay -- literally-- for the significant economic, environmental, and societal benefits Massachusetts residents would receive from an increase in the RPS.

There is no evidence that increasing the RPS will increase electricity costs; rather increasing the RPS can protect us from utility bill increases resulting from rising natural gas prices. In fact a more aggressive RPS will likely save us money.

Massachusetts exists within a regional energy market. How will it affect other states if we increase our RPS?

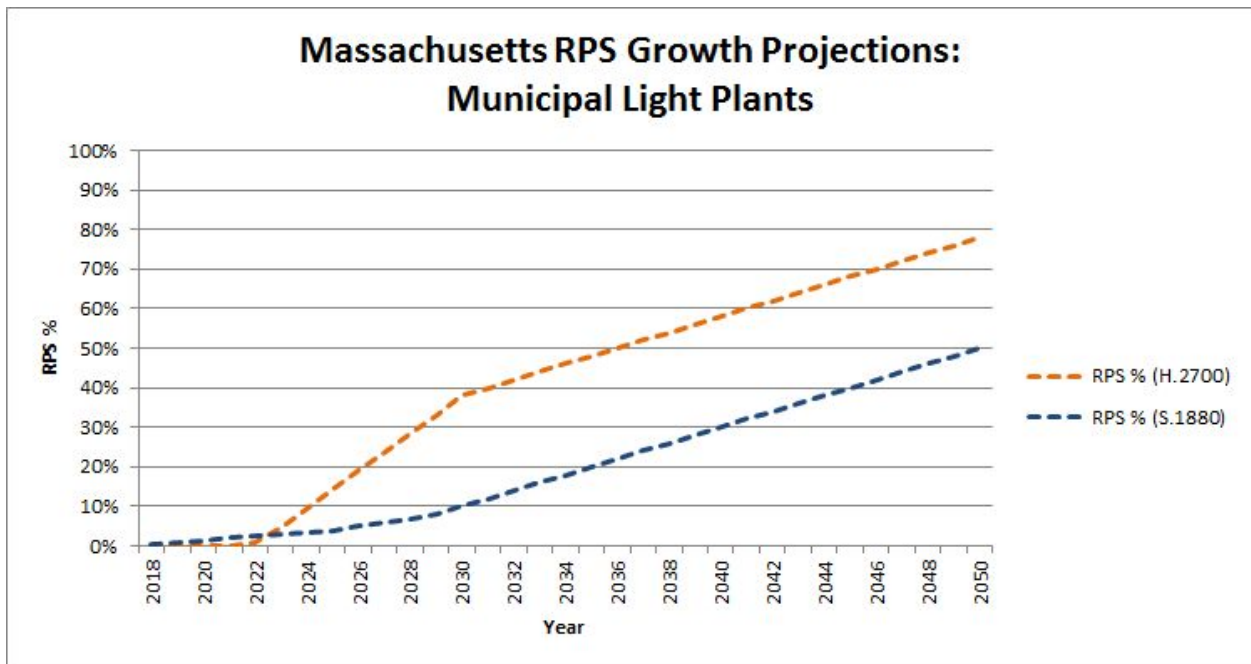
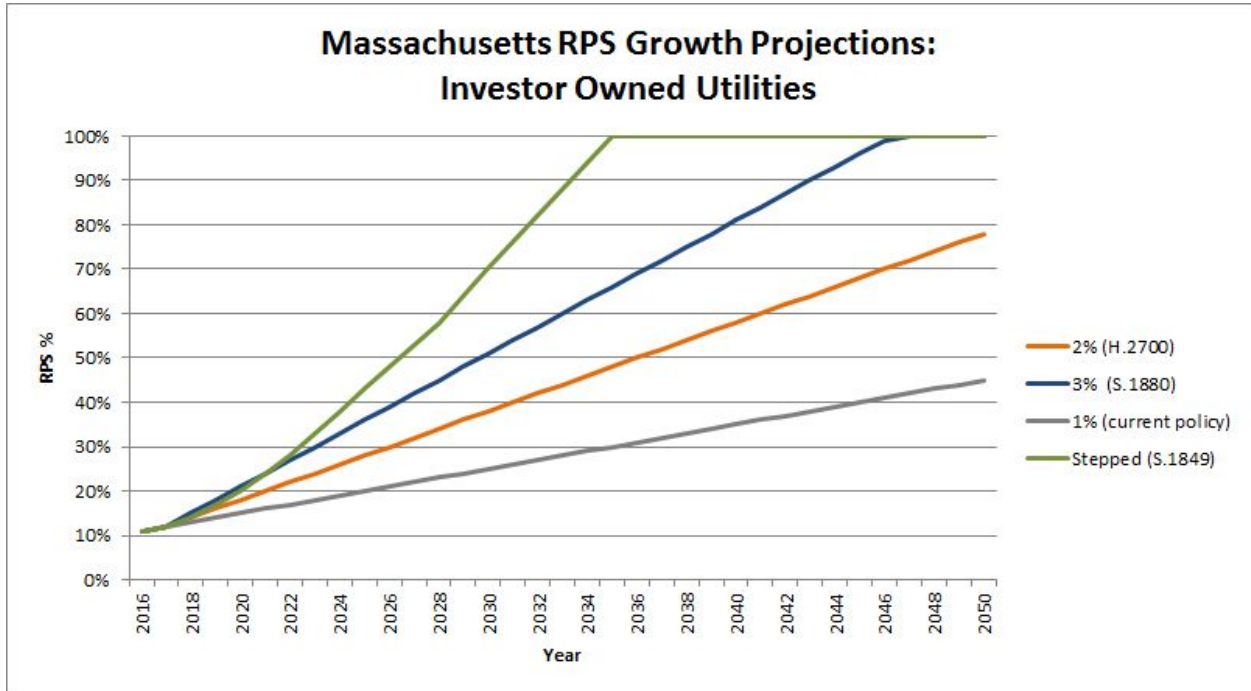
Regionally, Massachusetts is responsible for 50% of the New England energy market. Although the incremental RPS increase will have a gradual impact on the energy market, it will have a more immediate impact in the New England REC market. Increasing the rate of growth for the Massachusetts RPS will increase regional demand for RECs, which will increase market REC prices and stimulate growth in renewable energy development projects throughout the region. Increasing the RPS sends a signal to the market that demand for clean energy will remain strong in Massachusetts and our neighboring states.

Has legislation been proposed to increase the RPS?

Numerous bills proposing increases in the RPS have been filed this legislative session. [H.2700](#), filed by Representative Kay Khan, and [S.1880](#), filed by Senator Marc Pacheco, attempt to address two key limitations of our current RPS policy:

- The pace of growth for the RPS is too slow to meet our climate goals and market needs.
- Municipal Light Plants (MLPs) are currently excluded from the RPS. This is a significant flaw in the existing policy—although they serve 50 municipalities and deliver 13% of Massachusetts electricity, MLPs are currently exempted from this clean energy purchasing requirement.

The proposed bills take different approaches to addressing these limitations. The Khan bill proposes a modest 2% increase to the RPS, while requiring that MLPs come into full compliance with the RPS by 2030. The Senate bill proposes a more aggressive 3% annual RPS increase, but includes a gradual Muni-specific RPS track that starts at .5% and increases by that same amount each year until 2026, when it begins increasing by 1%. This growth continues until 2030, when the annual increase changes to 2%. Both bills offer significant improvements over the current RPS, although initial modelling suggests that even a 2% RPS increase is inadequate to meet our climate and energy goals.



Other RPS related bills include [H2706](#) (Representative Paul Mark) and [S1846](#) (Senator James Eldridge), identical bills that increase the current (IOU) RPS by 2% starting in 2018. Neither of these bills address MLPs, which significantly reduces their effectiveness.

Senator Eldridge has also introduced legislation ([S.1849](#)) that would require a 100% transition to renewable energy for the electricity sector by 2035. The RPS would be used to facilitate this

transition, with stepped increases of 2% for 2018, then 3% through 2020, 4% through 2022, 5% through 2028, and 6% annually after that until 100% is reached.

Will increasing the RPS lead to more jobs in the state?

Yes. Economic modelling revealed a *net* increase (accounting for job losses in the fossil fuel industry) of 18,900 jobs from a 2.75% RPS increase, and 33,400 jobs with a 3% MA increase combined with a 1.5% CT increase (or a 3.75% MA increase alone).

A substantial increase in the RPS (e.g. 3% or greater) will result in more Massachusetts jobs and greater emission reductions with very little cost to ratepayers.