

RI Renewable Energy Standard (RES) – Fact Sheet

February 2016

Key Takeaways:

- The proposed 1.5% annual increase from 2020 to 2035 is in line with the analysis and recommendations of the draft State Energy Plan & the requirements of the Resilient Rhode Island Act.
- The RES provides a long-term stable market for renewable energy by signaling to developers that Rhode Island is committed to renewable energy for the long term.
- New England's increasing reliability on natural gas exposes the region to significant price volatility. The RES can mitigate this price volatility by diversifying the state's energy mix with renewable energy whose fuel is always free.
- The RES supports indigenous resources that bring economic development to Rhode Island, including projects authorized in the Renewable Energy Growth program.

What is the RES?

Rhode Island's RES annually increases the percentage of new renewables utilities are required to purchase with a target of 16% by 2019. The RES provides a long-term stable market for renewable energy by signaling to developers that Rhode Island is committed to renewable energy for the long term. Recent action by the PUC has resulted in that target being reduced to 14.5%, thereby discouraging investment that would benefit Rhode Island energy consumers.

What is the proposed expansion?

The legislation reaffirms Rhode Island's commitment to renewable and clean energy by extending the current 1.5% annual increase from 2019 to 2035. This is in line with the analysis and subsequent recommendation found in the draft State Energy Plan.

Why is the RES important for RI?

Between 2000 and 2013, natural gas grew from 15% of New England's electricity fuel mix to 49% in 2015, exposing Rhode Island ratepayers to significant price volatility.¹ To mitigate this risk, diversifying Rhode Island's energy mix is a high priority. Renewable energy can mitigate price volatility in two ways:

- The "fuel" for renewable energy such as wind and solar are always free and not susceptible to the price volatility that has been seen with natural gas and other fossil fuels.
- Renewable energy contracts and tariffs, like the Renewable Energy Growth (REG) program, provide a long-term guarantee for a steady, predictable cost-effective price for customers.

Why is it important to expand the RES now?

Renewable energy developers are making decisions today that will affect the ability to provide lower cost renewable energy several years down the road. Rhode Island needs to signal to the market that there will continue to be a demand for new renewable energy beyond 2019. Any delay could indicate market uncertainty discouraging developers from initiating and building projects that would benefit Rhode Island energy customers.

How does RI's RES compare to other states? Rhode Island falls at the bottom of the pack among the New England states. Connecticut is the leader with a target of 20% new renewables by 2020.

RES Targets in New England States ²		
Year	Target	Expiration Date
CT	27%	2020
MA	Class I: 15% in 2020, 1% annual increase in perpetuity	In perpetuity
RI	14.5%	2019
ME	40%	2017
VT	75%	2032
NH	25%	2025

How does the REG program relate to the RES program?

While the RES program creates *demand* for renewable energy, the Renewable Energy Growth program helps to *supply* the renewable energy with 160 MW of in-state projects. The program is poised to provide nearly all of the additional RECs needed to meet the RES through 2019. An extension of the RES beyond 2019 would support renewables in general, including projects built in Rhode Island such as those authorized in the Renewable Energy Growth program.

What are the economic benefits of renewable energy to Rhode Island?

The National Renewable Energy Lab (NREL) and Lawrence Berkeley National Lab recently completed a study on some of the costs and benefits associated with Renewable Energy Standards across the country. They found that while the average compliance cost nationally was approximately \$1 billion in 2013, it drove over \$20 billion in gross domestic product and supported nearly 200,000 U.S.-based jobs – with 170,000 of those in the construction trades. The study also found that the growth of renewable energy helped reduce the cost of wholesale energy, resulting in up to \$1.2 billion in savings for electricity customers nationwide.³

In addition, over the last decade, RES targets have provided a long-term stable market for renewable energy, a significant contributing factor in the fall of renewable energy prices over the last decade. According to the New York Times⁴:

- The price of electricity from utility-scale solar projects dropped by 70% since 2008.
- The price of utility-scale wind projects has dropped by over 50% in recent years.

- The price to install residential-scale solar dropped by nearly 15% between 2012 and 2013.

How much has the RES impacted electric bills?

In 2015, the RES charge varied between .294 and .48 cents per kwh.⁵ For the average residential customer, this represents an increase of approximately \$1.47 to \$2.40 per month. In addition, there has been at least a year during which the renewable energy purchased through long-term contracts has been below the market rate for electricity resulting in a credit on consumer's bills.

What happens if there is not enough renewable energy to meet the RES?

If there is a shortage of renewable energy credits (RECs), where one credit is created for each Megawatt-hour of renewable energy produced, an alternative compliance payment (ACP) may be made. Between 2007 and 2012, National Grid has only made an ACP one time in 2011 for \$4.5M. The ACP acts as insurance to protect customers from paying too much for RECs. Moreover, ACP funds were paid to the Renewable Energy Fund managed by CommerceRI, which provides funding for renewable energy projects that produce RECs and in turn help meet future RES targets. According to testimony before the PUC in September 2013, National Grid does not anticipate making ACP payments between 2015 and 2020.⁶

¹ ISO New England, http://www.iso-ne.com/static-assets/documents/2016/01/20160126_presentation_2016stateofthegrid.pdf

² <http://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx#ri> ; Renewable Energy Standards across states have different requirements and approved sources.

- CT requires 20% Class I or new resources by 2020; 27% total by 2020
- MA requires 15% Class I by 2020, with a 1% increase in perpetuity. Class II: 5.5% by 2015
- RI requires that 12.5% of the RES be from 'new sources'.
- ME requires 10% to be from Class I new sources. ME also has separate goals for wind development
- NH requires at least 15% to be met from new renewables
- Vermont requires 10% in-state distributed generation by 2032 and 12% innovative in-state generation by 2032.

³ Wiser, R., G. Barbose, J. Heeter, T. Mai, L. Bird, M. Bolinger, A. Carpenter, G. Heath, D. Keyser, J. Macknick, A. Mills, and D. Millstein. 2016. *A Retrospective Analysis of the Benefits and Impacts of U.S. Renewable Portfolio Standards*. Lawrence Berkeley National Laboratory and National Renewable Energy Laboratory. NREL/TP-6A20-65005. <http://www.nrel.gov/docs/fy16osti/65005.pdf>.

⁴ Diane Cardwell, "Solar and Wind Energy Start to Win on Price vs. Conventional Fuels," *New York Times*, 23 November 2014, http://www.nytimes.com/2014/11/24/business/energy-environment/solar-and-wind-energy-start-to-win-on-price-vs-conventional-fuels.html?_r=0

⁵ https://www.nationalgridus.com/narragansett/non_html/SOS_Rates_Table_Residential.pdf

⁶ National Grid, "Docket 4404 – Commission Review into the Adequacy of Renewable Energy Supplies Pursuant to R.I. General Laws §39-26-6," PUC Testimony, 25 September 2013, page 9.