Renewable Electricity Standard (RES)

Expanding Markets for Renewable Energy

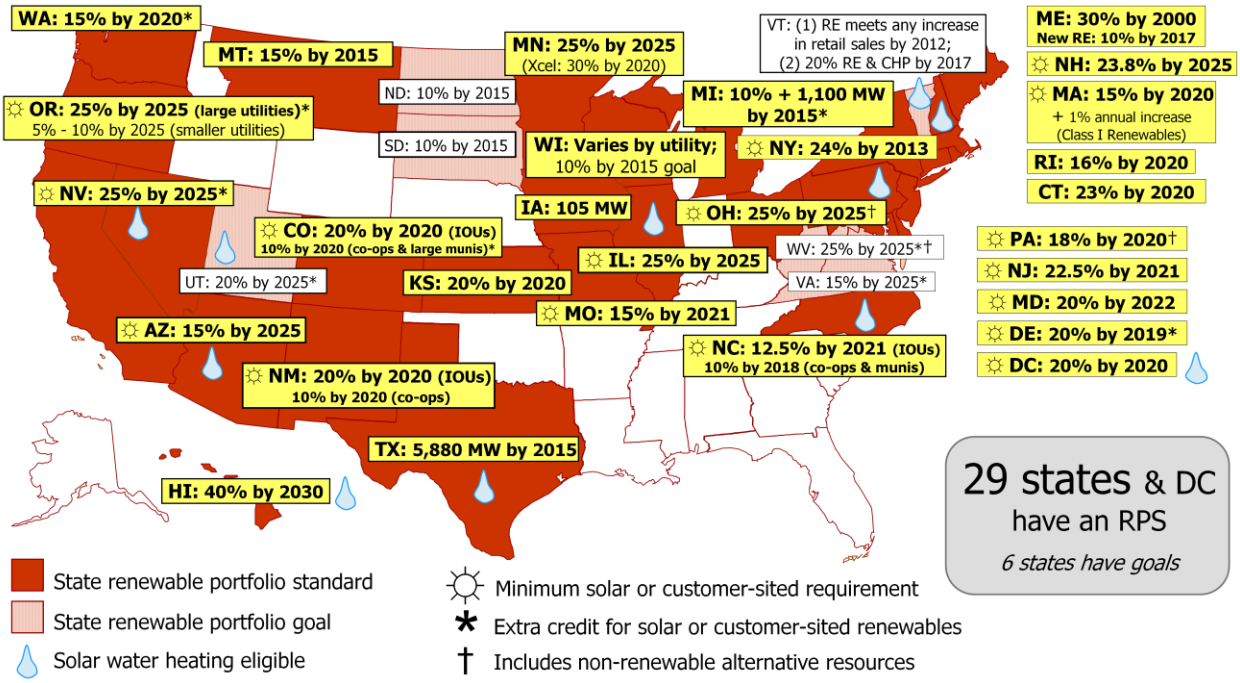
Overview

A renewable electricity standard (RES) – also referred to as a renewable portfolio standard (RPS) – requires energy suppliers to acquire a certain quantity of energy from renewable energy sources such as wind and solar. In the United States, these policies have been enacted in 29 states plus the District of Columbia, which together account for approximately 40% of the total U.S. electricity load.[1] Generally, RPS policies seek to encourage competition between renewable energy providers to reduce the cost of meeting renewable energy targets. President Obama has made a national RPS a cornerstone of his energy strategy – advocating that 25percent of our electricity be generated from renewable sources by 2025.

Why Establish an RES?

A strong RPS is essential to developing the vast reserves of natural renewable energy resources that exist in the United States. An ambitious national standard will help to create thousands of new jobs, spur economic development, reduce pollution, and save consumers money on their utility bills. An analysis using the National Energy Modeling System (NEMS) predicts that a 25 percent renewable standard will create 297,000 new jobs, generate $263.4 billion in new capital investment and save consumers $64.3 billion on their utility bills by 2025.[2]

State Renewable Electricity Standards[1]



[1] Database of State Incentives for Renewable Energy – www.dsireusa.org (October 2009)

What Would a National RES Cost?

Analysis by the Energy Information Administration (EIA) and experience at the state level both indicate the cost of even a robust national RPS would be minimal. Examining a 25 percent by 2025 renewable standard, the EIA concluded that retail electricity prices compared to a business-as-usual scenario through 2022 would be negligible.[3] After 2023, retail electricity prices were 3.9 percent higher, but were partially offset by lower natural gas bills.[4] A survey of state RPS cost projections by DOE's Lawrence Berkeley National Laboratory (LBNL) indicates that 70 percent of studies anticipate no more than a 1 percent increase in retail electricity prices in the year the state RPS target reaches its peak.[4] According to these projections, only two states will experience rate increases of greater than 5 percent and five states will realize cost savings.[5] The bottom line is that RPS policies do not significantly raise electricity rates, and often result in cost savings for consumers. They also create local demand for renewable technologies, creating jobs and economic development.

A Strong Solar RES should:

- Ensure deployment of all types of solar technology by including distributed photovoltaics, solar thermal and utility-scale solar power as qualifying technologies.
- Guarantee that the U.S. gets 25 percent of its energy from renewable sources by 2025, matching President Obama's goal.
- Require that all utilities adhere to the standard, and maintain additional incentives for distributed generation
- Ensure compliance through a strong penalty, and require that all penalty payments be used by states to deploy renewable energy.

How Does RES Work?

Renewable portfolio standards establish incremental targets which increase over time. Utilities that are subject to the standard must obtain renewable energy credits (RECs) for a specific percentage of their generation. A REC is created for each megawatt-hour of electricity (or equivalent energy) generated from a qualifying renewable energy source. They are a purely financial product, and may be bought, sold or traded separately from the underlying electricity in order to facilitate flexibility in RPS compliance. Some RPS policies vary in terms of which resources qualify, whether "carve-outs" for certain technologies or distributed generation are included, and whether entities other than retail electricity suppliers are subject to the standard.

Solar in the National RES

Solar technologies are critical in meeting the renewable targets in any national RPS policy. Photovoltaic and utility-scale concentrating solar systems qualify for RECs under all current and proposed RPS standards. Some standards do not include solar water heating, despite the fact that it is a renewable, low-cost alternative to standard electric or gas-heated water systems. Given the low costs and wide geographic applicability of solar water heating, it should be included as a renewable resource in any national standard.

By removing market barriers to small-scale, distributed solar systems, individuals can also play a role in meeting national renewable goals by installing solar systems on their homes. By requiring utilities to interconnect and net meter these systems, customers with PV installations will see their electricity meters run backwards while generating more electricity than they use. Optimal RPS policies will also allow customers to retain the RECs for electricity they generate, creating another source of revenue to offset the cost of their systems.

About the Solar Energy Industries Association

Established in 1974, SEIA is the national trade association of the solar energy industry. As the voice of the industry, SEIA works to make solar a mainstream and significant energy source by expanding markets, removing market barriers, strengthening the industry and educating the public on the benefits of solar energy.

For a footnoted version of this factsheet and more information, please visit www.seia.org.