

Renewable Energy Certificates

Renewable Energy Certificate (REC) markets are created through state Renewable Portfolio Standard (RPS) programs. Currently, 29 States and Washington D.C. have implemented RPS programs aimed at incentivizing more energy from wind, solar, hydro power and other renewable sources.

Market Overview

- Almost half of all state renewable targets rise until at least 2030
- 50% of all growth in US renewable electricity generation and capacity since 2000 is associated with state RPS compliance. (78GW of 154GW)
- In 2018, 10 states enacted higher RPS targets (CA, CT, DC, MA, MD, NE, NJ, NM, NV and NY)

Source - Berkeley Lab

General REC Classifications

Energy classification for different REC classes is determined at the state level.

Class I RECs

- Solar photovoltaic
- Wind
- Small hydropower
- Landfill methane and anaerobic digester gas
- Marine or hydrokinetic
- Geothermal

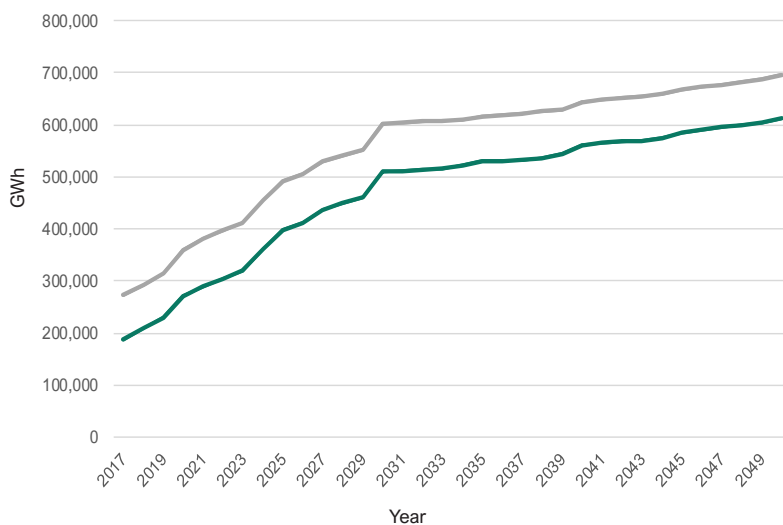
Class II RECs

Often involve alternative energy such as: burning solid waste at extremely high temperatures to generate electricity or steam power.

Class III RECs

Include combined heat and power systems and waste heat recovery systems.

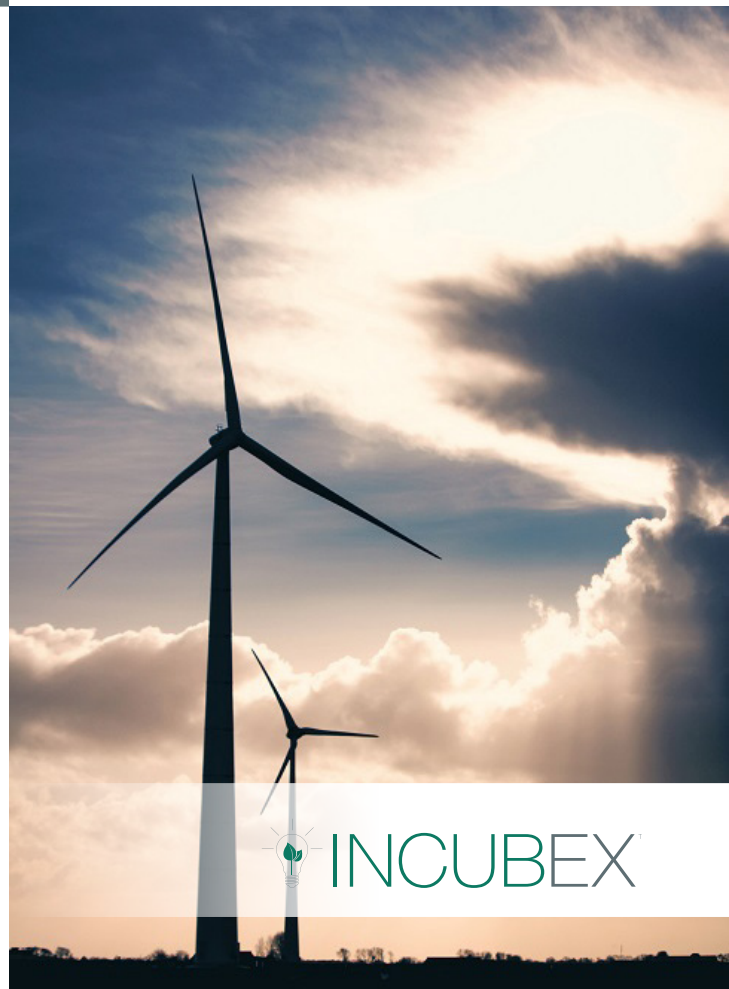
Total US Renewable Portfolio Standard Demand



— Total RPS (excl. hydro, MSW, non-RE)

— Total RPS

Source - Berkeley Lab



REC Market Basics

Renewable energy producers, such as wind or solar, generate a REC for each megawatt hour (MWh) of energy they produce. These resources create two sources of value that can each be sold: electricity and RECs. The RECs can be sold to utilities for compliance purposes or other entities interested in them.

States with programs have their own REC market requirements and classes, or tiers, for certain power sources such as wind and solar. How aggressive a state mandate is, is a primary determinant of prices from state to state. There currently is no federal REC market in the US.

Some generating resources qualify in multiple states. Other REC eligibility is stand-alone.

RPS programs have been successful in achieving their goals of increasing renewable electricity production. In some instances, such as Texas and California, states have already exceeded their legislated targets and others are quickly approaching.

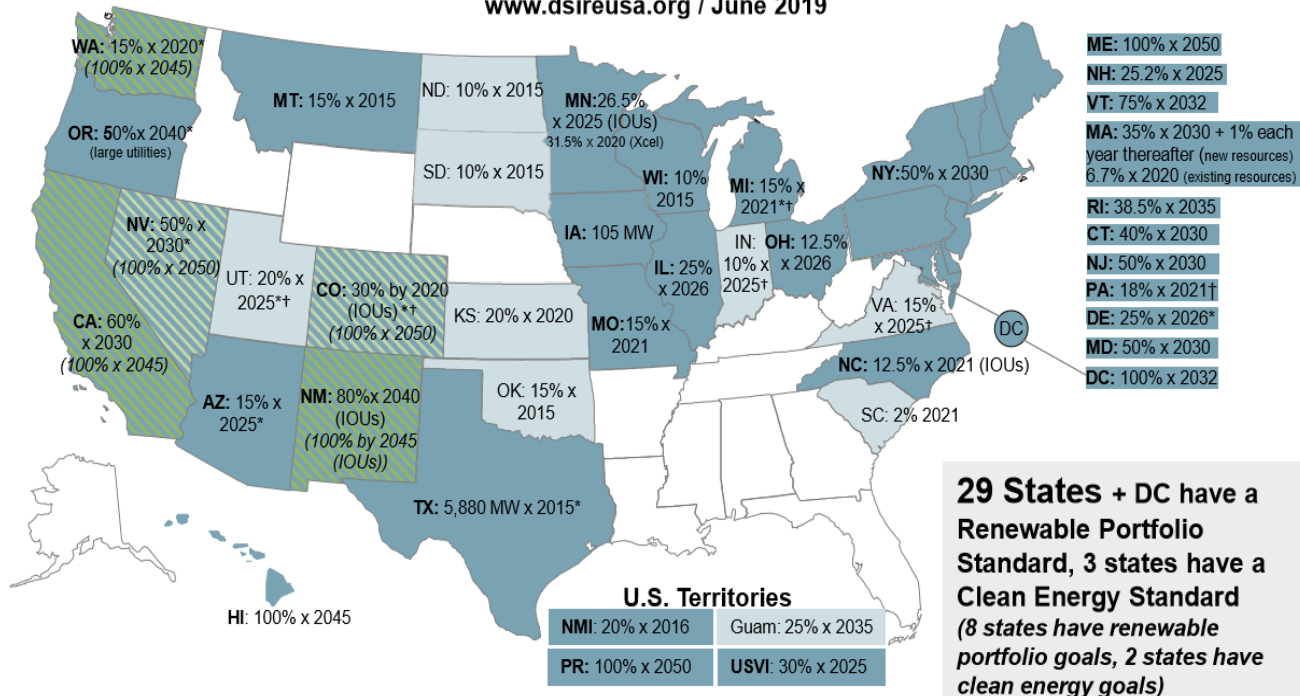


Contact

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Renewable & Clean Energy Standards

www.dsireusa.org / June 2019



- Renewable portfolio standard
- Clean energy standard
- Renewable portfolio goal
- Clean energy goal
- * Extra credit for solar or customer-sited renewables
- † Includes non-renewable alternative resources