

Renewable Energy Goals

Solar Policy Survey

October 2016



The NESEMC Solar Policy Survey compiles information on state-level policies that significantly influence the solar energy market. The survey was produced with the help of the Pace Energy and Climate Center's team of student researchers. The vast majority of the information contained within this document has been obtained from [the Database of State Incentives for Renewables & Efficiency](#) (DSIRE) with additional information and research obtained from various sources.

Note: These factsheets are updated periodically to reflect policy changes within each state. If you notice a mistake or out of date information, please contact Nick Martin at nmartin@nesemc.com.

POLICY BACKGROUND

Renewable energy goals refer to targets and mandates states may set for increasing the utilization of renewable energy within the state. These goals are most commonly expressed as a percentage of overall energy consumption within the state (e.g. X% of retail electricity sales) or a certain amount of capacity (e.g. X megawatts of renewable generation).

Renewable energy goals may be aspirational or binding.

States may set targets for renewable energy. Generally, these targets are expressed as a percentage of overall energy consumption within the state. They may be binding or non-binding.

Binding targets often take the form of a renewable portfolio standard (RPS), which generally places an obligation on utilities, electricity suppliers, or other entities to produce or procure a certain amount of qualifying renewable energy. An RPS will generally use renewable energy certificates (REC) to provide a mechanism to track renewable energy procurement. Enacting an RPS can help spur additional demand for renewable energy by creating a market for RECs.

States can create "solar carve outs" in their renewable energy policy by designing mandating a portion of the RPS obligation be fulfilled by solar PV or by developing other incentive programs and mechanisms with specific solar targets.

SUMMARY

	GOAL	SOLAR CARVE OUT
CT	27% of retail electricity sales must be renewable by 2020. 23% of sales must come from resource classes that include solar PV by 2020.	300MW residential solar carve out.
ME	40% of retail electricity sales must be renewable by 2017. 10% of sales must come from resource classes that include solar PV by 2017.	None.
MA	22.1% of retail electricity sales must be renewable by 2020 with 1% increase per year afterwards. 15% (+ 1% each year after) of sales must come from resource classes that include solar PV by 2020.	1600MW solar carve out.
NH	24.8% of retail electricity sales by renewables by 2025. 15.3% of sales must come from resource classes that include solar PV by 2025.	0.3% of 2014 RPS obligation had to be fulfilled with Class II new solar-electric sources.
NJ	20.38% of retail electricity sales by renewables by 2028. 17.88% of sales must come from resource classes that include solar PV by 2028.	4.1% of 2028 RPS obligation must be fulfilled with solar.
NY	50% of retail electricity sales by renewables by 2030.	3,000MW solar carve out by 2023 through NY-Sun.
PA	18% of retail electricity sales by renewables by 2020-2021. 8% of sales must come from resource classes that include solar PV by 2020-2021.	0.5% of 2021 RPS obligation must be fulfilled with solar.
RI	38.5% of retail electricity sales by renewables by 2035.	None, but Renewable Energy Growth (REG) program aims to install 160MW of grid connected distributed energy.
VT	75% of retail electricity sales by 2032.	None.

CONNECTICUT

Goals and Mandates:

Connecticut state law creates a renewable portfolio standard (RPS) requiring 27% of retail electricity sales to be supplied by renewable sources by 2020.¹

20% of the 2020 RPS mandate must be fulfilled by Class I resources, which include solar PV. 3% must be fulfilled by either Class I (includes solar PV) or Class II (excludes solar PV) resources. The remaining 4% of the mandate must be fulfilled by Class III resources, which do not include solar PV.

The increasing yearly requirements of the RPS will be primarily fulfilled by additional Class I renewables.

Solar Carve Out:

Connecticut has a solar carve out in its RPS requirements. Signed into law in July 2015, Public Act No. 15-194 directs the CT Green Bank to offer Class I RECs to residential solar PV installations. The CT Green Bank will offer these incentives until the earlier of December 31, 2022 or 300MW of residential solar PV installation is achieved. These Renewable Energy Credit (RECs) are referred to as Solar Home Renewable Energy Credits (SHRECs).

MAINE

Goals and Mandates:

Maine state law creates a renewable portfolio standard (RPS) requiring 40% of retail electricity sales to be supplied by renewable sources by 2017.²

10% of the 2017 RPS mandate must be fulfilled by Class I renewable sources, which include solar PV. These resources must have come online after September 1st, 2005. The increasing yearly requirements of the RPS is primarily fulfilled by increases in Class I renewable sources.

Solar Carve Out:

Maine does not have a solar specific renewable energy goal or solar carve out in the RPS.

MASSACHUSETTS

Goals and Mandates:

Massachusetts state law creates a renewable portfolio standard (RPS) requiring 22.1% of retail electricity sales to be supplied by renewable sources by 2020 with 1% increases each subsequent year.³

15% of the 2020 RPS mandate must be fulfilled by Class I renewables, which include solar PV. The remaining 7.1% of the mandate must be fulfilled by Class II resources, which include existing renewables and waste energy. The increasing yearly requirements of the RPS is primarily fulfilled by increases in Class I renewables.

Solar Carve Out:

Massachusetts has a solar-specific renewable energy goal. Class I resources for the RPS must include at least

¹ [Conn. Gen. Stat. § 16-245a](#)

² 35-A M.R.S. § 3210

³ Mass. Gen. Laws ch. 25A, § 11F

1600MW of solar PV by 2020.⁴ Qualifying solar facilities must be 6MW or less and must have become operational after December 31, 2012.

NEW HAMPSHIRE

Goals and Mandates:

New Hampshire state law creates a renewable portfolio standard (RPS) requiring 24.8% of retail electricity sales to be supplied by renewable sources by 2025.⁵

15.3% of the 2025 RPS mandate must be fulfilled by Class I and II renewables, which include solar PV. The remaining 9.5% of the mandate must be fulfilled by Class III and IV resources, which do not include solar PV.

Solar Carve Out:

New Hampshire has a solar-specific renewable energy goal. By 2014, 0.3% of the RPS had to be fulfilled by Class II new solar-electric sources, which are any solar PV generator that began operation after January 1st, 2006.

NEW JERSEY

Goals and Mandates:

New Jersey state law creates a renewable portfolio standard (RPS) requiring 20.38% of retail electricity sales to be supplied by renewable sources by 2020. Additionally, 4.1% of retail electricity sales must be supplied by solar PV sources by 2028.⁶

17.88% of the 2020 RPS mandate must be fulfilled by Class I resources, which include solar PV. The remaining 2.5% must be fulfilled by Class II resources, which do not include solar PV.

Solar Carve Out:

New Jersey has a solar-specific renewable energy goal. By 2028, 4.1% of retail electricity sales must be supplied by solar PV sources.

NEW YORK

Goals and Mandates:

By order of the New York Public Service Commission, New York has established a Clean Energy Standard (CES) requiring 50% of retail electricity sales to be supplied by renewable sources by 2030.⁷

Tier 1 of the CES is designated for new renewable sources, including but not limited to solar PV. These are resources that came into operation after January 1, 2015. The increasing yearly requirements of the CES will be fulfilled by Tier 1 resources.

⁴ DOER, Installed Solar Capacity in Massachusetts (2016) *available at* <http://www.mass.gov/eea/docs/doer/renewables/installed-solar.pdf>

⁵ RPS § 362-F3

⁶ N.J. Stat. § 48:3-49 et seq.

⁷ [NY PSC Order, Case 15-E-0302, Order Adopting a Clean Energy Standard](#)

Solar Carve Out:

New York's CES does not include a carve-out for solar PV. However, New York does have a goal of 3,000 MW of solar PV by 2023 through its [NY-Sun program](#). To achieve this goal, incentives (\$/W) are paid to eligible projects at declining levels as more solar capacity enrolls in the program.

PENNSYLVANIA**Goals and Mandates:**

Pennsylvania state law creates an Alternative Energy Portfolio Standard (AEPS) requiring 18% of retail electricity sales to be provided by renewable and alternative sources by compliance year 2020-2021 (period ending May 31, 2021).⁸

8% of the 2021 AEPS mandate must be fulfilled by Tier 1 resources, which includes solar PV, while the remaining 10% must be fulfilled by Tier 2 resources, which *does not* include solar PV.

Solar Carve Out:

Pennsylvania has a solar-specific renewable energy goal. At least 0.5% of Tier 1 resources must be supplied by solar PV by 2021.

RHODE ISLAND**Goals and Mandates:**

Rhode Island state law creates a renewable portfolio standard (RPS) requiring 38.5% of retail electricity sales to be supplied by renewable sources by 2035. In 2016, the requirement is 10% of retail sales, and it will increase by 1.5% each year until 2035.⁹

Solar Carve Out:

Rhode Island does not have a solar specific renewable energy goal, however, the state's [Renewable Energy Growth](#) program aims to promote the installation of grid connected renewable energy, including solar. This is a tariff-based incentive program designed to finance all aspects of solar projects, including development, construction, and operation costs. The REG program has a target to install 160 MW of distributed renewable energy. It is a 15 to 20 year tariff at a fixed price offered by National Grid.

VERMONT**Goals and Mandates:**

Vermont state law creates a renewable energy standard (RES) requiring 75% of retail electricity sales to be supplied by renewable sources by 2032.¹⁰ In 2017, 55% of sales must be supplied by renewable sources with the requirement increasing 4% every three years until 2032.

10% of the 2032 mandate must be supplied by distributed generation including solar PV.

⁸ 73 P.S. § 1648.1 et seq.

⁹ R.I. Gen. Laws § 39-26-1 et seq.

¹⁰ Vermont H.B. 40

Solar Carve Out:

Vermont does not have a solar specific renewable energy goal.

About NESEMC



The **Northeast Solar Energy Market Coalition** brings together solar energy business associations and other stakeholders in the Northeast United States to harmonize regional solar energy policy and advance the solar energy market. We are funded by the U.S. Department of Energy SunShot Initiative as a cooperative agreement through 2017.

Our vision is a thriving, efficient regional market for solar photovoltaic energy generation in the Northeast.

We will realize our vision by encouraging and engaging regional solar businesses in advancing market policy to lower costs and increase solar market opportunity. We will educate stakeholders and policy makers throughout the region directly, and by empowering our member organizations with robust analysis and timely information.

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