

# RPS Solar Carve Out Pennsylvania

## Renewable Portfolio Standard (RPS)

Renewable Portfolio Standards (RPSs) are a policy tool enacted by many states to stimulate growth of the renewable energy industry. They require utilities to generate or purchase a certain amount of their electricity from renewable energy by a specific date. If a utility does not meet this goal, they are often subject to a penalty known as an Alternative Compliance Payment (ACP). Renewable Energy Credits (RECs), called Alternative Energy Credits (AECs) in PA are tradable credits which represent the electricity generated from a renewable resource that utilities can purchase to meet their RPS goal. Solar Renewable Energy Credits (SRECs) are a form of RECS that represent electricity generated from a solar system. RECs are subject to market dynamics with the set ACP effectively functioning as a price floor. RPSs are different in every state.

Solar carve outs and credit multipliers are included in most RPSs because the programs tend to favor lower cost renewable technologies, and these programs provide incentives for the deployment of more costly technologies.<sup>1</sup> Solar carve outs require a certain percentage of the RPS be met with solar energy, while credit multipliers offer additional credit toward compliance for energy derived from solar sources. From 2005-2009, 65-81% of the total grid connected PV in the United States(excluding California) occurred in states with active or forthcoming solar carve outs.<sup>2</sup> The types of solar technology eligible under these incentives vary depending on a state's RPS goals.

## Solar Installation across the US

- The United States has over 5,700 MW of installed solar electric capacity<sup>3</sup>
- In the Mid-Atlantic states and New York about 23% of solar installations were attributed to RPSs<sup>4</sup>
- 16 States and the District of Columbia have unique solar or direct generation (DG) carve outs in their RPS<sup>5</sup>
- If full RPS compliance is achieved there will be 93 GW of new renewable energy online in the United States by 2035<sup>6</sup>

## Pennsylvania RPS

Pennsylvania's form of an RPS, the Alternative Energy Portfolio Standard (AEPS) was established in 2004.<sup>7</sup> The state's AEPS standard is 18% alternative energy compliance by 2020.<sup>8</sup> Major utilities are expected to meet these standards, while rural electric cooperatives in the state are required to offer retail customers a voluntary program of energy efficiency programs in order to comply with the AEPS. Pennsylvania divides renewable sources into two separate tiers. Utilities must generate 8% of their electricity from Tier I sources and 10% from Tier II sources by 2020. Both PV and solar thermal energy are considered Tier I sources, and there is a set-aside requiring utilities to purchase a certain percentage of their Tier I requirement from PV. These requirements increase on a yearly basis, according to the schedule set by legislation.<sup>9</sup> Pennsylvania's Solar ACP varies from year to year and is based on the market prices of SAECs during the prior compliance year. Revenue received through the ACP will be placed into Pennsylvania's Sustainable Energy Funds and used solely to support alternative-energy projects.<sup>10</sup>

## Americans Support Solar...

- 9 out of 10 Americans approve of renewables<sup>11</sup>
- The solar industry employs 119,000 Americans<sup>12</sup>
- In order to reduce costs for the rate payer, many states have cost caps of 10% or less for their RPS<sup>13</sup>

**Solar Prices Declining:** Nationally, the average solar installation price declined by 19.3%. The price of residential systems fell by 15.3% with prices dropping in every major residential market and installed costs approaching \$4.00/watt.<sup>14</sup>

---

<sup>1</sup> DSIRE. SOLAR, Solar Set-Asides in Renewable Portfolio Standards. <http://www.dsireusa.org/solar/solarpolicyguide/?id=21>

<sup>2</sup> Wisner, Ryan, Barbose, Galen & Holt, Edward. (October 2012). Supporting Solar in Renewable Portfolio Standards: Experience from the United States, p. 25. <http://eetd.lbl.gov/ea/ems/reports/lbnl-3984e.pdf>

<sup>3</sup> SEIA. Solar Industry Data. <http://www.seia.org/research-resources/solar-industry-data>

<sup>4</sup> Barbose, Galen (November 1, 2012). Renewable Portfolio Standards: A Status Update (Power Point Presentation), p. 15. *Lawrence Berkley National Lab*

<sup>5</sup> Id.

<sup>6</sup> Id.

<sup>7</sup> DSIRE. Pennsylvania: Alternative Energy Portfolio Standard.

[http://www.dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=PA06R&re=0&ee=0](http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=PA06R&re=0&ee=0)

<sup>8</sup> Id.

<sup>9</sup> Id.

<sup>10</sup> Id.

<sup>11</sup> SCHOTT Solar Barometer/SEIA (2011). New Poll: 9 Out of 10 Americans Support Solar, Across Political Spectrum.

<http://www.seia.org/news/new-poll-9-out-10-americans-support-solar-across-political-spectrum>

<sup>12</sup> The Solar Foundation (November 2012). National Solar Census, p.5.

<http://thesolarfoundation.org/sites/thesolarfoundation.org/files/TSF%20Solar%20Jobs%20Census%202012%20Final.pdf>

<sup>13</sup> Barbose, Galen (November 1, 2012). Renewable Portfolio Standards: A Status Update (Power Point Presentation), p. 29. *Lawrence Berkley National Lab*.

<sup>14</sup> SEIA/GTM (2012). U.S. Solar Market Insight Report: Q3 2012, *Executive Summary*, p.10. <http://www.seia.org/research-resources/solar-market-insight-report-2012-q3>