AEPS Annual Report Overview

Compliance Year 2020
## AEPS Tier Obligations

### AEPS Requirements by Reporting Year*

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>Time Period</th>
<th>Tier I (includes solar)</th>
<th>Solar PV</th>
<th>Tier II</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2/28/07 - 5/31/07</td>
<td>1.50%</td>
<td>0.00%</td>
<td>4.20%</td>
</tr>
<tr>
<td>2</td>
<td>6/1/07 - 5/31/08</td>
<td>1.50%</td>
<td>0.00%</td>
<td>4.20%</td>
</tr>
<tr>
<td>3</td>
<td>6/1/08 - 5/31/09</td>
<td>2.00%</td>
<td>0.01%</td>
<td>4.20%</td>
</tr>
<tr>
<td>4</td>
<td>6/1/09 - 5/31/10</td>
<td>2.50%</td>
<td>0.01%</td>
<td>4.20%</td>
</tr>
<tr>
<td>5</td>
<td>6/1/10 - 5/31/11</td>
<td>3.00%</td>
<td>0.02%</td>
<td>6.20%</td>
</tr>
<tr>
<td>6</td>
<td>6/1/11 - 5/31/12</td>
<td>3.50%</td>
<td>0.03%</td>
<td>6.20%</td>
</tr>
<tr>
<td>7</td>
<td>6/1/12 - 5/31/13</td>
<td>4.00%</td>
<td>0.05%</td>
<td>6.20%</td>
</tr>
<tr>
<td>8</td>
<td>6/1/13 - 5/31/14</td>
<td>4.50%</td>
<td>0.08%</td>
<td>6.20%</td>
</tr>
<tr>
<td>9</td>
<td>6/1/14 - 5/31/15</td>
<td>5.00%</td>
<td>0.14%</td>
<td>6.20%</td>
</tr>
<tr>
<td>10</td>
<td>6/1/15 - 5/31/16</td>
<td>5.50%</td>
<td>0.25%</td>
<td>8.20%</td>
</tr>
<tr>
<td>11</td>
<td>6/1/16 - 5/31/17</td>
<td>6.00%</td>
<td>0.29%</td>
<td>8.20%</td>
</tr>
<tr>
<td>12</td>
<td>6/1/17 - 5/31/18</td>
<td>6.50%</td>
<td>0.34%</td>
<td>8.20%</td>
</tr>
<tr>
<td>13</td>
<td>6/1/18 - 5/31/19</td>
<td>7.00%</td>
<td>0.39%</td>
<td>8.20%</td>
</tr>
<tr>
<td>14</td>
<td>6/1/19 - 5/31/20</td>
<td>7.50%</td>
<td>0.44%</td>
<td>8.20%</td>
</tr>
<tr>
<td>15</td>
<td>6/1/20 - 5/31/21</td>
<td>8.00%</td>
<td>0.50%</td>
<td>10.00%</td>
</tr>
</tbody>
</table>

* Percent of Total Electric Sales
## Compliance by Tier - 2020

<table>
<thead>
<tr>
<th>Tier</th>
<th>Credits Required</th>
<th>Credits Retired</th>
<th>Credit Shortfall (ACPs Req.)</th>
<th>Weighted Average Credit Price</th>
<th>Purchase Cost of Retired Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar</td>
<td>616,361</td>
<td>614,926</td>
<td>1,435</td>
<td>$37.00</td>
<td>$22,593,048.12</td>
</tr>
<tr>
<td>I</td>
<td>10,120,783</td>
<td>10,086,046</td>
<td>34,737</td>
<td>$7.87</td>
<td>$78,658,825.46</td>
</tr>
<tr>
<td>II</td>
<td>11,240,632</td>
<td>11,203,559</td>
<td>37,073</td>
<td>$1.92</td>
<td>$21,280631.03</td>
</tr>
</tbody>
</table>

Based on retail load of 136,458,735 MWh from all 10 EDCs.
Total credit purchase cost: $122,532,504.61 (~$0.01 per $1 spent on electric service)
Retired Credits by State
In-State vs. Out-of-State: 2016 - 2020

Percentage of Retired Alternative Energy Credits that Originated in Pennsylvania

- Solar
- Tier I
- Tier II

Year | Solar | Tier I | Tier II
--- | --- | --- | ---
2016 | 70% | 61% | 60%
2017 | 66% | 39% | 67%
2018 | 67% | 35% | 67%
2019 | 67% | 35% | 60%
2020 | 50% | 24% | 60%
Tier I Compliance Resources

- Wind, 42%
- Non-Pennsylvania Solar, 19%
- Wood/Wood Waste Solids, 14%
- Landfill Gas, 10%
- Low Impact Hydro, 9%
- Black Liquor, 2%
- Pennsylvania Solar, 1%
- Other Gas & Bio Gas, 1%
- Coal Mine Methane, 2%
- Retired Tier I AEC
## PA Energy Portfolio

### PA Electric Generation by Energy Source

#### Compliance Year 2020

<table>
<thead>
<tr>
<th>Energy Source</th>
<th>Generation (KWh)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>10,776,000</td>
<td>5%</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>78,887,000</td>
<td>34%</td>
</tr>
<tr>
<td>Nuclear</td>
<td>30,599,000</td>
<td>13%</td>
</tr>
<tr>
<td>Renewables</td>
<td>1,357,000</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>107,823,000</td>
<td>47%</td>
</tr>
</tbody>
</table>

*Note: The total generation is 178,320,000 KWh.*
Annual Share of Pennsylvania Electricity Generation by Energy Source

- **Coal**
- **Natural Gas**
- **Nuclear**
- **Renewables**

**2010**:
- Coal: 42%
- Natural Gas: 17%
- Nuclear: 10%
- Renewables: 4%

**2011**:
- Coal: 40%
- Natural Gas: 19%
- Nuclear: 11%
- Renewables: 4%

**2012**:
- Coal: 39%
- Natural Gas: 21%
- Nuclear: 12%
- Renewables: 4%

**2013**:
- Coal: 37%
- Natural Gas: 22%
- Nuclear: 13%
- Renewables: 4%

**2014**:
- Coal: 35%
- Natural Gas: 23%
- Nuclear: 14%
- Renewables: 4%

**2015**:
- Coal: 34%
- Natural Gas: 24%
- Nuclear: 15%
- Renewables: 4%

**2016**:
- Coal: 33%
- Natural Gas: 25%
- Nuclear: 16%
- Renewables: 4%

**2017**:
- Coal: 32%
- Natural Gas: 26%
- Nuclear: 17%
- Renewables: 4%

**2018**:
- Coal: 31%
- Natural Gas: 27%
- Nuclear: 18%
- Renewables: 4%

**2019**:
- Coal: 30%
- Natural Gas: 28%
- Nuclear: 19%
- Renewables: 4%
Contact Information

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