Nevada Electric Utility Energy Efficiency Programs: A Mixed Bag
July 2016

History

- In 2005, Assembly Bill 3 was enacted, amending Nevada’s Renewable Portfolio Standard and requiring that by 2015, 20 percent of all electricity sold by the state’s regulated utilities comes from renewable energy sources. The bill allowed up to 25% of the clean generation requirement to be met with energy savings credits from utility-sponsored energy efficiency programs. In 2009, Senate Bill 358 was passed, which increased the requirement for clean energy sources to 25% in 2025.

- SB 358 also gave electric utilities the opportunity to recover lost revenues associated with energy efficiency programs. In 2010, the Public Utilities Commission of Nevada (PUCN) approved a lost revenue recovery mechanism that allowed utilities to recover revenues lost from reduced sales due to efficiency programs. However, this mechanism proved to be very controversial and was eliminated in 2015.

- NV Energy, the parent company of Nevada Power Co. (NPC) in southern Nevada and Sierra Pacific Power Co. (SPPC) in northern Nevada, greatly expanded its energy efficiency and other demand-side management (DSM) programs during 2006-2009 in response to this favorable legislation. By 2009, NV Energy achieved net energy savings of 439 GWh per year, about 1.5 percent of retail electric sales.

- However, a number of factors worked against energy efficiency in Nevada in recent years:
  - Nevada’s economy withered during the great recession and electricity consumption fell as a result. The PUCN questioned the need for large investments in energy efficiency programs in the near term, and cut NV Energy’s DSM budget, including eliminating the residential lighting program.
  - NV Energy accumulated significant excess energy efficiency credits from its successful DSM programs during 2006-2010, meaning the utility had less motivation to continue implementing highly effective programs post-2010.
  - Hostility to DSM programs increased as a result of implementing the lost revenue recovery mechanism.

- In 2013, the Nevada legislature approved SB 252, which gradually phased out the energy efficiency credits that can be counted towards compliance with the Renewable Portfolio standard. The amount that can be provided by energy savings credits is limited to 20% during 2015-19, 10% during 2020-24, and then is phased out completely starting in 2025.

- As Nevada’s economy recovered, NV Energy proposed and the PUCN approved an expansion of utility efficiency programs starting in 2014. The expanded programs included a Home Energy Reports program and the reinstatement of a residential lighting program focused on promoting the adoption of LED lamps. However, the LED lighting program was discontinued at the end of 2015.

Impacts of Energy Efficiency Programs

- Over the past eight years (2008-2015), NV Energy spent a total of $375 million on energy efficiency and demand response programs. Funding has rebounded somewhat in recent years (see table below), but energy savings declined dramatically between 2009 and 2012.
NV Energy’s customers realized energy savings of about 2.3 billion kWh per year and a peak demand reduction of 570 MW in 2015 as a result of DSM programs implemented during 2008-15. The energy savings are equal to 7.6% of total electricity use by NV Energy’s customers. The savings are also equivalent to the electricity use of 254,000 typical households served by the utility.

NV Energy’s portfolio of energy efficiency programs has been cost effective every year. The cost-benefit ratio for SPPC’s efficiency programs implemented in 2015 was 1.34, and the ratio for NPC’s programs was 1.90. Households and businesses in the state are expected to realize $496 million in net savings as a result of NV Energy’s electric efficiency programs implemented during 2008-2015.

The average home in southern Nevada consumes about 178,000 gallons of water per year. NV Energy’s energy efficiency programs from 2008-2015 saved about 368 million gallons of water by 2015 as a result of less operation of power plants and their cooling systems. This is equivalent to the annual water use of about 2,100 Las Vegas area households.

Saving electricity reduces the operation and pollutant emissions of coal- and natural gas-fired power plants. NV Energy’s efficiency programs over the past eight years reduced CO₂ emissions by 1.3 million metric tons as of 2015. This is equivalent to removing 260,000 cars from the road.

For more information, contact Tom Polikalas, SWEEP’s Nevada Representative, tpolikalas@swenergy.org, or Howard Geller, hgeller@swenergy.org.

### DSM Program Results for Nevada’s Investor-Owned Electric Utilities

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Total</th>
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<tbody>
<tr>
<td>Expenditures (million $)</td>
<td>53</td>
<td>58</td>
<td>46</td>
<td>45</td>
<td>39</td>
<td>39</td>
<td>49</td>
<td>46</td>
<td>375</td>
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<tr>
<td>Electricity Savings (GWh/year)</td>
<td>409</td>
<td>439</td>
<td>304</td>
<td>278</td>
<td>182</td>
<td>175</td>
<td>238</td>
<td>246</td>
<td>2,271</td>
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<td>Peak Reduction (MW)</td>
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<td>122</td>
<td>56</td>
<td>41</td>
<td>46</td>
<td>62</td>
<td>75</td>
<td>111</td>
<td>572</td>
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<tr>
<td>CO₂ Emissions Reduction (thousand metric tons/year)*</td>
<td>289</td>
<td>310</td>
<td>171</td>
<td>156</td>
<td>107</td>
<td>108</td>
<td>79</td>
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<td>1,301</td>
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<td>Net Economic Benefits (million $)</td>
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<td>149</td>
<td>49</td>
<td>31</td>
<td>17</td>
<td>16</td>
<td>47</td>
<td>65</td>
<td>496</td>
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* CO₂ emissions reduction values for 2008-09 were estimated using U.S. EPA conversion factors; 2010-15 values were reported by NV Energy.