Renewable Energy in Nevada

Summary

Nevada contains excellent sites for developing a wide array of renewable energy resources. Its solar and geothermal energy resources are among the best in the nation, and it is a substantial producer of electricity from each of the technologies, as well as wind and hydropower. Nevada’s policies have helped to sustain the growth of its renewable energy industry, including a target of 25% renewable energy by 2025 with a solar energy carve-out, as well as strong net metering and interconnection policies designed to encourage distributed generation. To comply with the state government’s mandate to shut down its remaining coal-fired plants, the state’s utilities are identifying and implementing ways to replace lost generation with renewable energy.

Installed Renewable Energy Capacity, 2013

<table>
<thead>
<tr>
<th>Technology</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind Power</td>
<td>152 MW</td>
</tr>
<tr>
<td>Solar Photovoltaic</td>
<td>424 MW</td>
</tr>
<tr>
<td>Solar Thermal Electric</td>
<td>64 MW</td>
</tr>
<tr>
<td>Geothermal Power</td>
<td>566 MW</td>
</tr>
<tr>
<td>Hydropower</td>
<td>1,052 MW</td>
</tr>
<tr>
<td>Marine Power</td>
<td>0 MW</td>
</tr>
<tr>
<td>Biomass Power</td>
<td>3 MW</td>
</tr>
<tr>
<td>Ethanol</td>
<td>0 mGy</td>
</tr>
<tr>
<td>Biodiesel</td>
<td>16 mGy</td>
</tr>
<tr>
<td>Totals</td>
<td>2,261 MW; 16 mGy</td>
</tr>
</tbody>
</table>

Sources: See User’s Guide for details.

Market Spotlight

- The Moapa Band of Paiute Indians will host two third-party-owned, utility-scale solar projects on its land, which will have a combined capacity of 450 MW. The projects are expected to come online in 2015 and 2016. Additionally, April 2014 marked the completion of the tribe’s 252 kW microgrid at the Moapa Paiute Travel Plaza, which is expected to save over $700,000 in annual fuel costs.
- The 30 MW Patua geothermal project, near Reno, began commercial operations in December 2013. It supplies power to over 15,000 homes. A second phase of the project is under development.
- Nellis Air Force Base will gain a second, third-party-owned solar power project, which will double the base’s installed renewable energy capacity to 28 MWAC. The project was announced in June 2014 and is expected to cost $55.4 million. Once complete, the electricity from both solar arrays is expected to provide 42% of the energy needed to power the base.
- In June 2014, the Bureau of Land Management held an auction for bids to develop utility-scale solar energy projects on six parcels across 3,083 acres of the Dry Lake Solar Energy Zone, located in Clark County. The auction generated $5.8 million in high bids.
- In September 2014, the U.S. Department of Agriculture awarded a $105 million loan guarantee to support the development of a “garbage-to-fuels” biofuel plant near Reno, which will produce aviation and marine fuel for the U.S. Department of Defense.

Economic Development

<table>
<thead>
<tr>
<th>Employment</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Goods &amp; Services Jobs</td>
<td>21,861</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investment (Grossed-up)</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Finance</td>
<td>$295.3m</td>
<td>$88m</td>
</tr>
<tr>
<td>Venture Capital &amp; Private Equity</td>
<td>$4.1m</td>
<td>$48m</td>
</tr>
</tbody>
</table>


Electricity Generation, 2013 (EIA)
Renewable Energy in Nevada

State Policy

**Renewable Portfolio Standard**
- 25% by 2025
- Investor-owned utilities (IOUs) and retail suppliers (representing 88.2% of state’s electric load)
- Solar energy minimum: 5% of annual portfolio requirement; raises to 6% in 2016
- Energy efficiency may be used to satisfy a share of the requirement before 2025
- Portfolio energy credits (PECs), which represent the electricity generated by portfolio energy systems, are used to satisfy requirements
  - Electricity generated from PV can receive a 2.4 multiplier until 2016
- NV Energy must also purchase, construct, or acquire 350 MW of power from renewables by 2021, separate from the 25% RPS requirement
  - PECs from these projects can be used to comply with the RPS
- The Temporary Renewable Energy Development (TRED) allows IOUs to collect revenue from electric customers to pay for renewable energy separately from other wholesale power purchased by the electric utilities, which can be used to pay for renewable energy projects

**Net Metering**
- Investor-owned utilities
- System capacity limit of 1 MW or 100% of the customer’s annual requirements
- Aggregate capacity limit of 3% of total peak capacity of all utilities in state
- Net excess generation credited to customer’s next bill at the retail rate
- Customer owns renewable energy credits (RECs) (unless subsidized by utility)
- Meter aggregation allowed for some hydro and wind installations

**Interconnection Standards**
- Investor-owned utilities
- 20 MW system cap, net metering not required

**Tax Incentives**
- Property Tax Abatement for Large-Scale Renewables:
  - For new or expanded businesses that build renewable energy projects of 10 MW or more, make a specified minimum capital investment in the state, and employ a certain number of full-time employees during construction, who are paid higher than the average statewide hourly wage and provided health insurance
  - 55% property tax abatement for 20 years

- Sales and Use Tax Abatement:
  - New or expanded companies may have their sales and use taxes reduced to 2.25%, if they meet the job creation and job quality requirements noted under the “Property Tax Abatement”
  - For the property used to generate renewable electricity from systems 10 MW or more

- Property Tax Exemption:
  - Renewable energy systems that serve a residential, commercial, industrial building or irrigation system are exempt from property taxes
  - Applies for all years following the installation
  - Short-term, low-cost loans for renewable energy project developers and renewable energy component manufacturers, as well as for certain energy efficiency improvements
  - Loan amount: $100,000-$1,000,000
  - Loan term to not exceed 15 years; interest rate of 3%
  - Not presently accepting applications

**More Info**
- DSIRE Database: www.dsireusa.org/incentives/index.cfm?state=NV
- Governor’s Office of Energy: http://energy.nv.gov
- Renewable Energy Portfolio Credit Standard Information: www.nvtrec.com