For Operating Day: Wednesday, May 13, 2020

The Renewables Watch provides important information about actual renewable production within the ISO grid as California moves toward a 33 percent renewable generation portfolio. The information provided is as accurate as can be delivered in a daily format. It is unverified raw data and is not intended to be used as the basis for operational or financial decisions.

### 24-Hour Renewables Production

<table>
<thead>
<tr>
<th>Renewable Resources</th>
<th>Peak Production Time</th>
<th>Peak Production (MW)</th>
<th>Daily Production (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar Thermal</td>
<td>11:39</td>
<td>382</td>
<td>4,012</td>
</tr>
<tr>
<td>Solar</td>
<td>13:21</td>
<td>9,609</td>
<td>98,116</td>
</tr>
<tr>
<td>Wind</td>
<td>17:29</td>
<td>3,993</td>
<td>87,930</td>
</tr>
<tr>
<td>Small Hydro</td>
<td>20:16</td>
<td>343</td>
<td>7,876</td>
</tr>
<tr>
<td>Biogas</td>
<td>20:08</td>
<td>215</td>
<td>4,944</td>
</tr>
<tr>
<td>Biomass</td>
<td>16:42</td>
<td>318</td>
<td>7,278</td>
</tr>
<tr>
<td>Geothermal</td>
<td>5:00</td>
<td>889</td>
<td>20,948</td>
</tr>
<tr>
<td><strong>Total Renewables</strong></td>
<td></td>
<td><strong>231,103</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Total 24-Hour System Demand (MWh):** 533,500

This table gives numeric values related to the production from the various types of renewable resources for the reporting day. All values are hourly average unless otherwise stated. Peak Production is an average over one minute. The total renewable production in megawatt-hours is compared to the total energy demand for the ISO system for the day.

### Hourly Average Breakdown of Renewable Resources

This graph shows the production of various types of renewable generation across the day.

- **Solar PV**
- **Wind**
- **Biomass**
- **Geothermal**
- **Small Hydro**
- **Biogas**
- **Nuclear**
- **Thermal**
- **Imports**
- **Hydro**
- **Renewables**

**System Peak Demand (MW):** 26,506

**Time:** 20:32

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Previous Renewables Watch reports and data are available at [http://www.caiso.com/green/renewableswatch.html](http://www.caiso.com/green/renewableswatch.html)

This table gives numeric values related to the production from the various types of renewable resources for the reporting day. All values are hourly average unless otherwise stated. Peak Production is an average over one minute. The total renewable production in megawatt-hours is compared to the total energy demand for the ISO system for the day. "Solar PV" is defined as solar generating units that utilize solar panels containing a photovoltaic material. "Solar Thermal" is defined as solar generating units that convert sunlight into heat and utilize fossil fuel or storage for production which may occur after sunset.
The first graph provided on this page shows how much energy renewable resources are contributing to the grid, and when those resources are producing their daily maximum and how that production correlates to the maximum energy demand.