Update on western energy imbalance market and benefits

Mark Rothleder
Senior Vice President, Chief Operating Officer

Board of Governor’s Meeting
General Session
November 18, 2020
$119.32 million gross economic benefits – 2020 3rd Qtr.

Gross benefits from EIM since November 2014

$1.11 billion

Cumulative benefits to date - billions

Individual Entity Benefits for 3rd Quarter - millions

$22.6
$8.7
$8.51
$23.68
$8.81
$13.47
$8.95
$3.44
$.88
$2.87
$17.41

California ISO
Flexible ramping procurement diversity savings for 3rd Quarter, 2020

<table>
<thead>
<tr>
<th>Direction</th>
<th>July</th>
<th>August</th>
<th>September</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Up</td>
<td>Down</td>
<td>Up</td>
</tr>
<tr>
<td>Average MW saving</td>
<td>925</td>
<td>969</td>
<td>906</td>
</tr>
<tr>
<td>Sum of BAA</td>
<td>2,057</td>
<td>1,757</td>
<td>2,041</td>
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<tr>
<td>requirements</td>
<td></td>
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<tr>
<td>Diversity Benefit</td>
<td>45%</td>
<td>55%</td>
<td>44%</td>
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<tr>
<td>Estimated Savings</td>
<td>$204,990</td>
<td>$0</td>
<td>$611,385</td>
</tr>
</tbody>
</table>
Weekly average prices in EIM areas
Weekly average prices in EIM areas

PACE

PACW

PGE

PSE

- Estimated Proxy
- RTD ELAP
- FMM ELAP
Weekly average prices in EIM areas

- **PWRX**

- **SCL**

- **SRP**

  - Estimated Proxy
  - RTD ELAP
  - FMM ELAP
Estimated wheel through transfers in Q3, 2020
Energy imbalance market helps avoid curtailment
Robust energy transfers in 3rd quarter, 2020

Transfer Axis: (+) Import   (-) Export
10th to 90th percentile
Tails are max and min
Simple averages
Robust energy transfers in 3rd quarter, 2020

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