Item 7: Independent Market Monitor (IMM) Report

Carrie Bivens
VP, ERCOT IMM Director
cbivens@potomaceconomics.com

Board of Directors Meeting

ERCOT Public
August 16, 2022
2022 YTD Real-Time Energy Prices

- Implied heat rates in real-time up for May and July
- Peaker Net Margin stands at $122k as of July 31 (greater than Cost of New Entry value of $105k)
2022 YTD DA/RT Price Difference on Average

*Effect of Winter Storm Uri removed

Item 7
ERCOT Public
Highest priced day July 13 – Prices and Reserves

July 13 12:00-20:00

Min ~2,500 MW
Ancillary Services

Average A/S Cost per MWh Load

- RegUp $27.82
- RegDn $10.56
- RRS $265.99
- NonSpin $62.12

Month, Year

Costs ($/MWh)
Load Trends

Houston Zone

North Zone

South Zone

West Zone
Transmission Congestion

Real-time congestion costs stand at $2.1B as of end of July
• Was $2.1B for all of 2021

<table>
<thead>
<tr>
<th>MONTH</th>
<th>RENT_TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$109</td>
</tr>
<tr>
<td>2</td>
<td>$131</td>
</tr>
<tr>
<td>3</td>
<td>$238</td>
</tr>
<tr>
<td>4</td>
<td>$382</td>
</tr>
<tr>
<td>5</td>
<td>$701</td>
</tr>
<tr>
<td>6</td>
<td>$251</td>
</tr>
<tr>
<td>7</td>
<td>$295</td>
</tr>
<tr>
<td>SUM-TOTAL</td>
<td>$2,107</td>
</tr>
</tbody>
</table>

(unit: $ million)

Top 10 Constraints by Total Congestion Value - 2022

- WEST TEXAS EXPORT GTC (WESTEX)
- JEWET-SNG LINES (JEWET-SNG LINES)
- KLINSW XFMRS (KLN5W-KLN5W)
- NORTH EDINBURG LOBO GTC (NE_LOB)
- CKT_3124_1 (STP-HLU)
- NORTH TO HOUSTON GTC (N_TO_H)
- 6462_C (MCN5W-MKNGB)
- PAWNEE_SPRUCE_1 (PAWNEE-CALAVERS)
- G138_10B_1 (SEMINOLE-MAGNO_TN)
- BURNS_RIOHONDO_1 (RIOHONDO-MV_BURNS)

Congestion Rent in $ million

(JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC)
Reliability Unit Commitment

- Opt Out Total
- RUC Total

Reliability Unit Commitment (Hours)

<table>
<thead>
<tr>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>JFMAMJ</td>
<td>JASOND</td>
<td>JFMAMJ</td>
<td>JASOND</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Item 7
ERCOT Public
2022 ORDC shift

- Operating Reserve Demand Curve (ORDC)
  - Minimum contingency level increased to 3,000 MW (from 2,000 MW) effective January 1, 2022
    - Impact of this shift on energy costs was approx. $1B as of July 31
    - Total ORDC adder impact on energy costs for the same time period was $2B