2016 Summer Preparedness
May, 2016
Historical Actual, Normal, & Forecast – Summer Peak (MW)

Actual, Normal and Forecast - Summer Peak (MW)
NYCA Base Case - With Energy Program Impacts

Source: NYISO
## 2016 Summer Capability

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installed Generation Capacity</td>
<td>39,039</td>
<td>38,535</td>
</tr>
<tr>
<td>Demand Response – Special Case Resources (SCRs)</td>
<td>1,124</td>
<td>1,248</td>
</tr>
<tr>
<td>Total NY Control Area (NYCA) Internal Capability</td>
<td>40,163</td>
<td>39,783</td>
</tr>
<tr>
<td>Net Firm Purchase Imports</td>
<td>1,446</td>
<td>1,769</td>
</tr>
<tr>
<td><strong>Total Capability</strong></td>
<td>41,610</td>
<td>41,552</td>
</tr>
</tbody>
</table>

Source: NYISO
# NYS Peak Demand and Installed Reserve Margin

<table>
<thead>
<tr>
<th></th>
<th>Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand Forecast</td>
<td>33,360 MW</td>
</tr>
<tr>
<td>17.5% Required Installed Reserve Margin (IRM)</td>
<td>5,838 MW</td>
</tr>
<tr>
<td>Total Capability Requirement</td>
<td>39,198 MW</td>
</tr>
<tr>
<td>Total Capability This Summer</td>
<td>41,552 MW</td>
</tr>
<tr>
<td>Surplus (Capability Above Requirement)</td>
<td>2,354 MW</td>
</tr>
<tr>
<td>Capability Versus Demand Forecast (%)</td>
<td>124.6%</td>
</tr>
</tbody>
</table>

Source: NYISO
Con Edison: Load Relief Programs

DLRP – Distribution Load Relief Program
CSRP – Commercial System Relief Program
DLC – Direct Load Control Program
Utility Transmission and Distribution Systems Preparedness

- **Surveys** - Discussed responses to preparedness survey with each utility
- **Work** - All planned reinforcements, inspections, and repairs are or will be completed
- **Spares** - Each utility has adequate spare equipment on hand
- **Planned Outages** - Major generator and transmission planned outages require NYISO approval, and are avoided during peak periods
- **Meeting Demand** - Each utility expects to meet peak demand with all lines and generators in service
- **Meeting Criteria** - Each meets NPCC and NYSRC operating criteria
- **Mitigation** – NYISO and each utility have operating procedures to mitigate reliability issues
2016 Summer Preparedness
New York State
Electric Portfolio, Volatility, and Supply Price Outlook
NYISO Spot Market vs. Utility Full Service Residential Customer Supply Portfolio Volatility
(Statewide 12-month rolling average)
Statewide - Mark to Market
New Contract History
(% of Total Supply Costs)
New York State Electric Supply Portfolio
Full Service Residential
(Summer 2016)

- Fixed Price: 68%
- Market Price: 21%
- Unhedged Generation: 3%
- Index Price: 8%
Average Energy Price Comparison
Summer Season

New York City LBMP ($/MWH)
- NYMEX Futures June-September, 2015: $29.63
- Spot Market June-September, 2015: $30.53
- NYMEX Futures June-September, 2016: $38.61

NY Hudson Valley LBMP ($/MWH)
- NYMEX Futures June-September, 2015: $28.34
- Spot Market June-September, 2015: $28.63
- NYMEX Futures June-September, 2016: $36.45

NY West LBMP ($/MWH)
- NYMEX Futures June-September, 2015: $27.09
- Spot Market June-September, 2015: $29.84
- NYMEX Futures June-September, 2016: $32.93
Summer Strip Auction
Capacity Prices
($ per kW-month)

- **Rest of State**
  - 2015: $3.50
  - 2016: $3.62

- **New Capacity Zone**
  - 2015: $8.50
  - 2016: $8.25

- **NYC Capacity Zone**
  - 2015: $15.50
  - 2016: $10.99

- **Long Island**
  - 2015: $5.30
  - 2016: $4.15
NYCA Capacity Costs 2006-2015

Cost ($ Billions)


- **Costs**:
  - 2006: 1.0, 0.6
  - 2007: 1.0, 0.8
  - 2008: 0.2, 0.6
  - 2009: 0.2, 0.7
  - 2010: 0.1, 0.4
  - 2011: 0.02, 0.1
  - 2012: 0.1, 0.1
  - 2013: 1.3, 0.3
  - 2014: 1.6, 0.3
  - 2015: 0.3, 0.4

- **Components**:
  - **LI**
  - **NYC**
  - **NCZ**
  - **ROS**

- **Legend**:
  - *Capacity computations performed by DPS Staff using published NYISO Capacity Auction results*
  - **All Capacity is priced at market prices; note that bilateral contract prices may differ from current market prices**
  - ***Costs jumped from 2012 through 2014 due to ~2,000MW in retirements and increases in peak load forecasts***
  - ****2015 prices declined as there was nearly 1GW more supply vs the 2014 Gold Book.**
*Capacity computations performed by DPS Staff using published NYISO Capacity Auction results
**Energy and Ancillary computation performed by DPS Staff using NYISO Monthly reports and 2016 NYISO Gold Book
*** All Supply costs are priced at market; note that bilateral contract prices may differ from current market prices
****Gas Price is EIA Average Gas price For New York Power Consumer