Non-wires Alternative Pilots in New England

Lindsay M. Foley

2016 NEEP Summit

June 13, 2016
DemandLink Rhode Island

- Two feeders serve 5,200 customers
  - 80% Residential, 20% Small Commercial
  - Summer Afternoon/Evening Peak

- Preferred Wires Solution
  - Construction of a 3rd feeder to serve area beginning in 2014

- NWA Proposal:
  - Create 1MW of load relief 2012-2017
  - Defer 3rd feeder by 4 years

- NWA deemed cost effective through modified total resource cost test
DemandLink Rhode Island

➢ Energy Efficiency
  • Targeted marketing to increase volume of existing programs
  • Enhanced rebates for:
    ▪ Wi-fi thermostats
    ▪ Plug devices
    ▪ Heat pump water heaters
    ▪ Window ACs
    ▪ Window AC Recycling

➢ Demand Response
  • Active dispatch of wi-fi thermostats on central AC units
  • Active dispatch of plug devices on window AC units
DemandLink Rhode Island

DemandLink Pilot Savings

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Summer k(\text{W})</th>
<th>Cumulative Summer k(\text{W})</th>
<th>1 MW Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>141</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>135</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>170</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>267</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DemandLink Nantucket

- Two undersea cables serve the island’s load (36MW/38MW)
- Each cable serves ~half of the electric demand under normal conditions
- If one cable goes down, all electric demand is served by the other cable, and, if needed, diesel generators are used to supply some of the load
- Peak electric demand in 2015 was 45MW
- 3rd cable currently forecasted for 2029
DemandLink Nantucket

Incremental Load Relief by Technology

Target NWA Project Impact on Load

2022: Cable Decision

Peak Load Forecast  Load w/ Installed NWA  3rd Cable Threshold
Thank You

Lindsay M Foley
781-907-2236
Lindsay.foley@nationalgrid.com