Energy Optimization in Load Forecasting

• Load Forecast Reviews
  – March 2008 [Summer Capacity]
    • Included Preliminary Energy Optimization Forecast
    • Submitted to MISO for Module E
    • Submitted to MPSC in Summer Capacity Plan
  – June 2008 [PSCR Plan]
    • Included Preliminary Energy Optimization Forecast
    • Submitted to MISO for Model on Demand
    • Submitted to MISO for Module E
    • Submitted to MPSC in PSCR Plan Case
  – October 2008 [Budget]
    • Included Updated Energy Optimization & Economic Forecasts
    • Submitted to MPSC in 2009 General Rate Case (11/14/08)
    • Submitted to MISO for Module E (10/17/08)
    • Updating Submission to MISO for Model On Demand
## Load Forecast Submissions

<table>
<thead>
<tr>
<th></th>
<th>Module E</th>
<th>Model on Demand</th>
<th>Summer Capacity</th>
<th>Power Supply Cost Recovery</th>
<th>General Rate Case</th>
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<tbody>
<tr>
<td><strong>Peak Load (50/50)</strong></td>
<td>Bundled</td>
<td>Bundled with ROA</td>
<td>Bundled and ROA</td>
<td>Bundled</td>
<td>Bundled and ROA</td>
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<td><strong>Trans Sys Losses</strong></td>
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<td><strong>Current Submittal</strong></td>
<td>October 08[11/17/08]</td>
<td>June 08</td>
<td>March 08</td>
<td>June 08</td>
<td>October 08[11/14/08]</td>
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<tr>
<td><strong>Update Timeframe</strong></td>
<td>As Updated</td>
<td>As Updated</td>
<td>Annually</td>
<td>Annually</td>
<td>As Filed</td>
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<td><strong>Length of Forecast</strong></td>
<td>10 Years</td>
<td>10 Years</td>
<td>1 Year</td>
<td>5 Years</td>
<td>10 Years</td>
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<tr>
<td><strong>Notes</strong></td>
<td>Updating to October 08</td>
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Consumers Energy October Forecast - Overview

- Forecast of Total Electric Deliveries
  - Includes ROA
- Filed in Electric Rate Case U-15645
- Declining Michigan Manufacturing Employment through 2010
- Declining Michigan Population through 2016
- Growing Semiconductor and Solar Energy Components sector

- Central A/C saturation is maturing
- New air conditioners are more efficient
- Energy Efficiency
- Load Control at Peak
- Demand Response at Peak
Consumers Energy October Forecast
Annual Use by Class

![Graph showing annual energy use by class from 1999 to 2018. The graph compares residential, commercial, and industrial energy use over the years, with a particular focus on the years 2008 to 2010.](image)
Consumers Energy October Forecast
Peak Demand

Graph showing peak demand for Consumers Energy from 1999 to 2018, with a peak in 2008.