INDIANA ELECTRICITY PROJECTIONS: THE 2011 FORECAST

Presented by:
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Presented to:
Indiana Industrial Energy Consumers, Inc.
Indianapolis, IN
November 15, 2011
Indiana Electricity Requirements

- Retail sales by investor owned and not-for-profit utilities
- Includes estimated transmission and distribution losses
- Growth rates
  - 2011 forecast: 1.30%
  - 2009 forecast: 1.55%
  - 2007 forecast: 2.46%
Indiana Peak Demand Requirements

• Peak demand is net of DSM and interruptible loads
• Growth rates
  – 2011 forecast: 1.28%
  – 2009 forecast: 1.61%
  – 2007 forecast: 2.46%
Indiana Resource Requirements

- Resources may be provided by conservation measures, contractual purchases, purchases of existing assets, or new construction.
- Existing resources are adjusted into the future for retirements, contract expirations, and IURC approved new resources.
## Uncontrolled Intermittent Net Peak Existing/ Incremental Projected Additional Total Reserve

<table>
<thead>
<tr>
<th>Year</th>
<th>Uncontrolled Peak Demand¹</th>
<th>Interruptible Demand²</th>
<th>Net Peak Demand³</th>
<th>Existing/ Approved Capacity⁴</th>
<th>Incremental Change in Capacity⁴</th>
<th>Peaking</th>
<th>Cycling</th>
<th>Baseload</th>
<th>Total</th>
<th>Total Resources⁶</th>
<th>Reserve Margin⁷ (percent)</th>
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</table>

1 Uncontrolled peak demand is the peak demand without any interruptible loads being called upon.
2 Net peak demand is the peak demand after interruptible loads are taken into account.
3 Existing/approved capacity includes installed capacity plus approved new capacity plus firm purchases minus firm sales.
4 Incremental change in capacity is the change in existing/approved capacity from the previous year. The change is due to new, approved capacity becoming operational, retirements of existing capacity, and changes in firm purchases and sales.
5 Projected additional resource requirements is the cumulative amount of additional resources needed to meet future requirements.
6 Total resource requirements are the total statewide resources required including existing/approved capacity and projected additional resource requirements.
7 Resources may be required by individual utilities even if the state as a whole meets or exceeds the statewide reserve margin. Individual utility reserve margins are not allowed to fall below 6 percent.
Indiana Real Price Projections (2009 $)

- Effect of inflation removed
- Includes the cost of new resources
- Does not include cost of expected EPA regulations
  - unless utility has already taken steps or included costs in data request
Alternative Scenarios

- Any forecast contains uncertainty
- CEMR provides alternative low and high growth econometric forecasts
- Low and high growth scenarios are intended to give a plausible bound to uncertainty
Residential Trends
(Annual Percent Change)


-5.5 8.7 4.7 2.1 1.1 1.0

Households
Electricity Rates
Income
Electricity Sales

*Forecast
Residential Electricity Sales

- Estimated from:
  - demographics
  - households
  - energy prices
- Growth rates
  - 2011 forecast: 0.71%
  - 2009 forecast: 1.75%
  - 2007 forecast: 2.21%
Commercial Trends
(Annual Percent Change)
Commercial Electricity Sales

- Estimated from:
  - floor space inventory
  - end use intensity
  - employment
  - energy prices
- Growth rates
  - 2011 forecast: 0.89%
  - 2009 forecast: 1.18%
  - 2007 forecast: 2.46%
Industrial Trends
(Annual Percent Change)


Electric Rates | Real Gross State Product Manufacturing | Electric Sales

*Forecast
Industrial Electricity Sales

- Estimated from:
  - GSP by industry
  - energy prices
- Growth rates
  - 2011 forecast: 2.11%
  - 2009 forecast: 1.63%
  - 2007 forecast: 2.67%
Environmental Regulations

- SUFG will be doing a study of the expected impacts of recent, proposed, and expected EPA regulations
  - Cross-State Air Pollution Rule
  - Mercury and Air Toxics Standards
  - Greenhouse gases
  - Cooling water
  - Coal ash
Vintage of Indiana Coal Plants

- **1980s**: 4,633 MW (30%)
- **1970s**: 6,798 MW (43%)
- **1960s**: 2,755 MW (18%)
- **1950s or before**: 1,431 MW (9%)
SO$_2$ Controls

Based on SUFG’s database at the time the forecast was prepared
NO$_x$ Controls

Based on SUFG’s database at the time the forecast was prepared