The R/ECON™ Model and Assumptions for the New Jersey State Energy Plan

December 18, 2006
The R/ECON™ Model

• An econometric model of the New Jersey economy
• About 250 equations
• Sectors include:
  – Employment, wages, output, and prices by industry
    • Employment and wages are at the heart of the model
  – Personal income by type
  – Population and labor force
  – Real estate and construction
  – Energy prices and usage (electricity, natural gas, fuel oil, and motor fuel)
  – State taxes and expenditures
The R/ECON™ Model-cont’d

• Estimation period: 1970 through 2004
• Data sources for New Jersey include:
• Data sources for the US include:
The US Forecast

- The Global Insight December 2006 forecast will be used as the US base for the NJ State Energy Plan economic baseline forecast

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual Percentage Growth</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonagricultural Employment</td>
<td>1.1%</td>
<td>1.5%</td>
<td>1.4%</td>
<td>0.9%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Real Domestic Product</td>
<td>3.9%</td>
<td>3.2%</td>
<td>3.3%</td>
<td>2.2%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Personal Income</td>
<td>6.2%</td>
<td>5.2%</td>
<td>6.4%</td>
<td>4.9%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Population</td>
<td>1.0%</td>
<td>0.9%</td>
<td>0.9%</td>
<td>0.9%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Consumer Prices</td>
<td>2.7%</td>
<td>3.4%</td>
<td>3.2%</td>
<td>1.7%</td>
<td>2.0%</td>
</tr>
<tr>
<td><strong>Percentage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment Rate(average)</td>
<td>5.5%</td>
<td>5.1%</td>
<td>4.6%</td>
<td>4.9%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>

**Sources:** Global Insight., *U.S. Economic Outlook*, December 2006.
The US Forecast—cont’d
Some assumptions in US model

- Prices of a barrel of fuel oil and a million BTU of natural gas
The US Forecast—cont’d
Some assumptions in R/ECON™ model

- Wholesale price indices for electricity, utility natural gas, and refined petroleum products
The US Forecast—cont’d
Some assumptions in US and NJ models

• Federal Funds rate and mortgage rate

Interest Rates

Federal Funds Rate
30-Year Conventional Fixed