Population and Economic Forecast and Selection of Discount Rate

Karen Lawson
Center for Clean Air Policy
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Population Forecast

- Used in the baseline forecast of greenhouse gas emissions and in evaluating mitigation options
- Discussed in several WGs considering following sources:
  - EIA
  - Charles Colgan, University of Southern Maine
  - Maine State Planning Office
# Population Forecasts

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>POP (low)</td>
<td>0.60%</td>
<td>1.00%</td>
<td></td>
</tr>
<tr>
<td>POP (med)</td>
<td>0.80%</td>
<td>1.15%</td>
<td></td>
</tr>
<tr>
<td>POP (high)</td>
<td>1.00%</td>
<td>1.30%</td>
<td>0.70%</td>
</tr>
</tbody>
</table>

[1] National  
[3] Preliminary
Population Forecast

- The Building Facilities Manufacturing Work Group felt most comfortable with the Charles Colgan’s mid-range forecast
  - used Maine data
  - covered the time period of the analysis
- This was supported by the Energy and Solid Waste Working Group.
Economic Forecast

- Used in the baseline forecast of greenhouse gas emissions and in evaluating mitigation options
- Discussed in several WGs considering following sources:
  - EIA
  - Charles Colgan, University of Southern Maine
  - Maine State Planning Office


# Economic Forecasts

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>GDP (low)</td>
<td>2.40%</td>
<td>3.0%</td>
<td></td>
</tr>
<tr>
<td>GDP (med)</td>
<td>2.97%</td>
<td>3.5%</td>
<td></td>
</tr>
<tr>
<td>GDP (high)</td>
<td>3.45%</td>
<td>4.0%</td>
<td>2.85%</td>
</tr>
</tbody>
</table>

[1] National Gross Domestic Product  
[3] Preliminary
Economic Forecast

- The BFM Work Group felt most comfortable with the Charles Colgan’s mid-range forecast
  - used Maine data
  - covered the time period of the analysis
  - However, interested in breaking out industrial component of GSP forecast (no growth expected)

- This was supported by the Energy and Solid Waste Working Group.
Discount Rate

- The Maine DEP has recommended the use of a consistent discount rate across all sectors (e.g., transportation, industry, residential, etc.)
- Consistency is important for policy analysis as it allows decision-makers to compare the cost-effectiveness of different measures across various sectors.
## Discount Rate

<table>
<thead>
<tr>
<th>Source</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Reserve Prime Rate (5 yr avg)</td>
<td>6.58%</td>
</tr>
<tr>
<td>Federal Reserve Prime Rate (Current)</td>
<td>4.12%</td>
</tr>
<tr>
<td>OMB recommendation for regulatory analysis</td>
<td>7%</td>
</tr>
<tr>
<td>Approx. State discount rate</td>
<td>5%</td>
</tr>
<tr>
<td>Maine recommendation for regulatory analysis</td>
<td>None known</td>
</tr>
<tr>
<td>Rhode Island's Legislature's Policy Offices</td>
<td>5%</td>
</tr>
</tbody>
</table>
Discount Rate

- BFM WG pointed out that the private sector uses higher discount rates to evaluate investments
  - capital constraints
  - preference for short payback periods
  - high internal rates of return that are often required

- Application of a private discount rate might be more appropriate in the future during the stage of final program design
  - Current process will not determine sector making investment (i.e., gov’t or private)