The Art and Science of Climate Policy

Jeff Henderson, AICP
Ian Peterson
Daniel Rubins, PE
Casey Kempenaar, AICP

California Climate Action Planning Conference
February 1, 2013
Jeff Henderson, AICP, PMC

California Climate Action Planning Conference
Local Climate Policy Considerations

- Goals, objectives, policies, strategies, actions, ordinances
  - Art and Science
- Must meet quantification objectives and reduction targets
- Must also be politically viable, cost-effective, socially acceptable, legal, implementable, monitorable
- Must compliment existing policy
Local Climate Policy Considerations

**Activity, Policy, or Program**

- **Political**
  - GHG Reduction Benefit
  - Time Frame

- **Technical**
  - Costs & Savings
  - Potential Funding Sources

- **Financial**
  - Implementing Department
  - Co-Benefits

California Climate Action Planning Conference
Local Portion of Reductions

Baseline

BAU

ABAU

AB 32 Recommended Reduction

Existing Accomplishments

California Climate Action Planning Conference
Local Portion of Reductions

Baseline: 155,410 MTCO$_2$e
Existing Accomplishments: 182,830 MTCO$_2$e
AB 32 Recommended Reduction: 167,640 MTCO$_2$e
Existing Accomplishments: 155,410 MTCO$_2$e
Target Options

- Recommended 15% below baseline by 2020
- 15% Below Baseline
- Recommended 22% below BAU levels by 2020
- 22% Below BAU
- Recommended 6.6 MTCO2e per service population
- Service Population Threshold
Climate Action Plan Measures

What strategies will we use?
What sectors will reductions come from?

- **Transportation & Land Use**
  - 50% of GHG Emissions

- **Energy**
  - 43% of GHG Emissions

- **Waste**
  - 2% of GHG Emissions

- **Water & Wastewater**
  - 2% of GHG Emissions

- **Off-Road Equipment**
  - 3% of GHG Emissions

- **Municipal Operations**
  - 1% of Total GHG Emissions

California Climate Action Planning Conference
Climate Action Plan Measures

Things to keep in mind when considering GHG reduction measures

- Respond to biggest sources in the inventory
- Address both new and existing development
- Identify measures to achieve preferred GHG reduction target
- Consider conservation, efficiency, and alternative measures and programs

California Climate Action Planning Conference
Policy Considerations

Consistent terminology

Focus Areas
- Land Use & Transportation
- Energy
- Resource Conservation
- Green Community
- Government Operations

Measures
- Specific direction to reduce GHG emissions in the community or government operations.
- GHG reductions are estimated at this level, based on cumulative performance metrics.

Actions & Performance Metrics
- Actions identify steps the City will take to implement each measure.
- Performance metrics identify data the City will use to track performance and progress.
Policy Considerations

- Mandatory and/or voluntary
  - Likely both are needed
  - Non-binding measures and incentives tend to be favored, particularly if supported by cost/savings evidence
  - Some may seem non-binding, but are actually compulsory

- New versus existing development
  - More discretion over new development
  - But for some communities, more opportunity in existing development
## Translating Policy to Quantified Emission Reductions

### Progress indicators/ performance standards

<table>
<thead>
<tr>
<th>Action</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify funding to expand the Residential Energy Assessment and Upgrade Program beyond the initial 2012 timeframe</td>
<td>Public Works</td>
</tr>
<tr>
<td>Leverage Energy Upgrade California outreach and educational materials, and PowerSaver loans when made available, to encourage energy efficiency retrofits and the use of energy efficient, low-carbon, or renewable technologies</td>
<td>Public Works</td>
</tr>
<tr>
<td>Work with the Association of Bay Area Governments (ABAG), PG&amp;E, and other organizations to develop and implement an Energy Upgrade California program for residential property owners</td>
<td>Public Works</td>
</tr>
</tbody>
</table>

### Progress Indicators

<table>
<thead>
<tr>
<th>Progress Indicators</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>15% of existing single family residential units and 15% of multi-family residential units perform cost-effective energy efficiency package improvements (e.g., insulation, duct sealing, AC refrigerant recharge)</td>
<td>2020</td>
</tr>
<tr>
<td>40% of existing single family residential units and 35% of multi-family residential units perform cost-effective energy efficiency package improvements (e.g., insulation, duct sealing, and AC refrigerant recharge)</td>
<td>2030</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMEFRAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Achieve the VMT performance standards identified in the 2030 General Plan.</td>
<td>Planning &amp; Public Works</td>
</tr>
<tr>
<td>B</td>
<td>Implement the Transportation Impact Study Guidelines</td>
<td>Planning &amp; Public Works</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROGRESS INDICATORS</th>
<th>TARGET YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 100% of Dunnigan, 60% of Madison, 50% of Esparto, 33% of Elkhorn, and 25% of Knights Landing achieve VMT performance standards.</td>
<td>2020 &amp; 2030</td>
</tr>
</tbody>
</table>
Responding to Guidelines and Local Call to Action

Tiered implementation approach

<table>
<thead>
<tr>
<th>Focus Areas &amp; Measures</th>
<th>Tier 1: Minimum Target (15%)</th>
<th>Tier 2: STRETCH Target (20-25%)</th>
<th>Project Level BMPs</th>
<th>Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conserve Water</td>
<td>A. Continue to implement the Water-Efficient Landscape Ordinance</td>
<td>B. Support implementation of the Cal-Water and SCVWD 2010 Urban Water Management Plans</td>
<td>C. Create and Distribute a Greywater/Rainwater Harvesting Guide</td>
<td>All New Construction</td>
</tr>
<tr>
<td></td>
<td>20% GPCD Reduction (SB-X7-7 Compliance)</td>
<td>D. Amend the Water-Efficient Landscape Ordinance: thresholds to 2,500 Square Feet for Existing Development and 1,000 Square Feet for New Development</td>
<td>E. Develop Greywater Procurement Program</td>
<td>G. Reduce Turf Installation and Install Native Landscaping</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F. Adopt Time-of-Sale Water Conservation Ordinance</td>
<td></td>
<td>H. Implement a Water Conservation Plan</td>
</tr>
</tbody>
</table>

California Climate Action Planning Conference
Alternative Perspectives

Still, no legislative fair share emissions reduction requirements for local governments

- Prevailing local conditions, circumstances, and discretion
  - CEQA Guidelines §15064(b) directs lead agencies to consider local conditions in significance thresholds and conclusions
  - Legislative provisions (Gov’t Code § 65300.7 and 65301.5) may supersede guidelines if targets/measures are in the General Plan

- Consider that some agencies may not want to streamline, but still need to adopt a General Plan