Second Largest City in San Diego County

Diverse environment and population
CITY POPULATION

1990: 135,000
2015: 256,000
2035: 326,000

141% Increase
BACKGROUND

Climate Action Plan

First Plan Adopted - 2000
Mitigation Plan – 2008
Adaptation Plan – 2011
Mitigation Update – 2015
Comprehensive CAP – Late 2015
BACKGROUND

18 Climate Actions
(57 components)
63% “Completed”
33% “In Progress”
4% “On-Hold”
(2 components)
Mitigation #3: Business Energy Evaluations
Nearly 2,500 free evaluations completed

Mitigation #5: Solar and Energy Efficiency
More than 6 million funded by two PACE programs

Mitigation #6: Smart Growth Around Trolley Stations
Final Palomar Specific Plan emphasizes multi-modal, mixed-use
Adaptation #4: **Local Water Supply & Reuse**
Water Reuse guide completed & workshops organized

Adaptation #11: **Green Economy**
New office supply contract includes “green” specifications & department purchasing liaisons trained
CITY EMISSIONS

Inventory Year

1990 2005 2012 2020 Forecast

Metric Tons CO2e

Wastewater (Process & Fugitive Emissions)
Industrial Energy
Water
Solid Waste
Commercial Energy
Residential Energy
Transportation & Mobile Sources

20% below 1990 (652,149 MTCo2e)
2020 w/ RPS, LCFS & Pavley I 903,019 MTCo2e)
STAKEHOLDER OUTREACH

Partner with Others to Provide Technical & Funding Assistance
Climate Change Working Group

- Lead by Resource Conservation Commission
- Supported by City Staff
STAKEHOLDER OUTREACH

Sectors & Potential Members

Residents
- Resource Conservation Commission member(s)
- Civic association member

New Development
- Development company
- Real estate firm

Existing Buildings & Infrastructure
- Local contractor
- Business association

Transportation
- Regional transportation agency
- Non-profit organization

Waste Management
- Trash hauler
- Non-profit organization

Utilities
- SDG&E
- Water districts
STAKEHOLDER OUTREACH

Structure

• Meeting 1 - 6 focus areas
  Water
  Energy
  Solid Waste
  Transportation
  Municipal Operations

• Each meeting...
  Different focus area
  Presentations & discussion
  Review relevant strategies
  Public comment
  Optional tour/project showcase

• Meetings #7-11 → Further evaluate & prioritize strategies
### 2014 CAP UPDATE - Energy Sector Planning Matrix

#### Example Strategies vs. Jurisdiction

<table>
<thead>
<tr>
<th>Example Strategy</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retire 15% of existing buildings</td>
<td>San Diego County</td>
</tr>
<tr>
<td>Reduce energy use by 15% in 20% of residential housing units by 2020 (50% of units by 2026)</td>
<td>San Diego</td>
</tr>
<tr>
<td>Reduce community energy load by 1% per year and peak load demand by 10% overall</td>
<td>Riverside</td>
</tr>
<tr>
<td>Reduce energy use and greenhouse gas emissions in existing buildings by 20% over 2007 levels</td>
<td>Vancouver</td>
</tr>
<tr>
<td>Reduce energy use districtwide in existing buildings by 1 million kWh annually and increase solar capacity by 500 MW annually</td>
<td>Santa Monica</td>
</tr>
</tbody>
</table>

#### Greenhouse Gas Emission Reductions

Assuming all sectors reduce equally, the Energy Sector’s 2020 reduction target would be:

- **132,715 MT CO2e**

To meet this goal, the community would need to reduce energy consumption by:

- **1748.26 MMBtu/yr**
- **18 kWh/day per capita reduction or 26% per capita reduction**

For reference:
- 1 MMBtu = 293 kWh
- 1 MMBtu = 10 tmm
- Average SDG&E customer uses 500 kWh & 33 tmm per month

#### Example Actions

<table>
<thead>
<tr>
<th>Action</th>
<th>Emission Reductions (MT CO2e)</th>
<th>City Jurisdiction</th>
<th>Fiscal Impact</th>
<th>Short Term Impact</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Energy Efficiency Education &amp; Outreach</td>
<td>1.298</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Engage 6% of households (~3,750) annually with EE information</td>
</tr>
<tr>
<td>2. Energy Upgrades for Low-Income Households</td>
<td>1748.26</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Retrof 1,000 homes each year (average saving of 271 kWh &amp; 872 tmm)</td>
</tr>
<tr>
<td>3. Commercial HVAC Replacement</td>
<td>73</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Reach 20% of total commercial building sq ft</td>
</tr>
<tr>
<td>4. Voluntary Green Building Standard (Current Action)</td>
<td>11</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Recruit 10% of new construction be exceed 2013 Title 24 by 15% (zero percent standby loads)</td>
</tr>
<tr>
<td>5. Commercial Energy Benchmarking</td>
<td>73</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Benchmark 20% of eligible commercial space (2,360,000 sq ft. per year)</td>
</tr>
</tbody>
</table>
STAKEHOLDER OUTREACH

Public Forum

- Presented draft measure ideas
- Gathered further input
- Raise awareness
STAKEHOLDER OUTREACH

CCWG Recommendations
• 12 strategies (24 actions)
• Approved by Council
• Set to go back to Council with implementation actions by end of year
LESSONS LEARNED

Bring in stakeholders at all steps
Action Builds Buy-In
Lessons Learned

Quantification Matters

- Wastewater (Process & Fugitive Emissions)
- Industrial Energy
- Solid Waste
- Commercial Energy
- Water
- Residential Energy

20% below 1990 (652,149 MTCo2e)
2020 w/ RPS, LCFS & Pavley I 903,019 MTCo2e)
LESSONS LEARNED

Set Goals for updates to Council
THANK YOU!

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