



Regional Climate Action Plan (RCAP) Greenhouse Gas (GHG) Analysis

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Presentation Overview

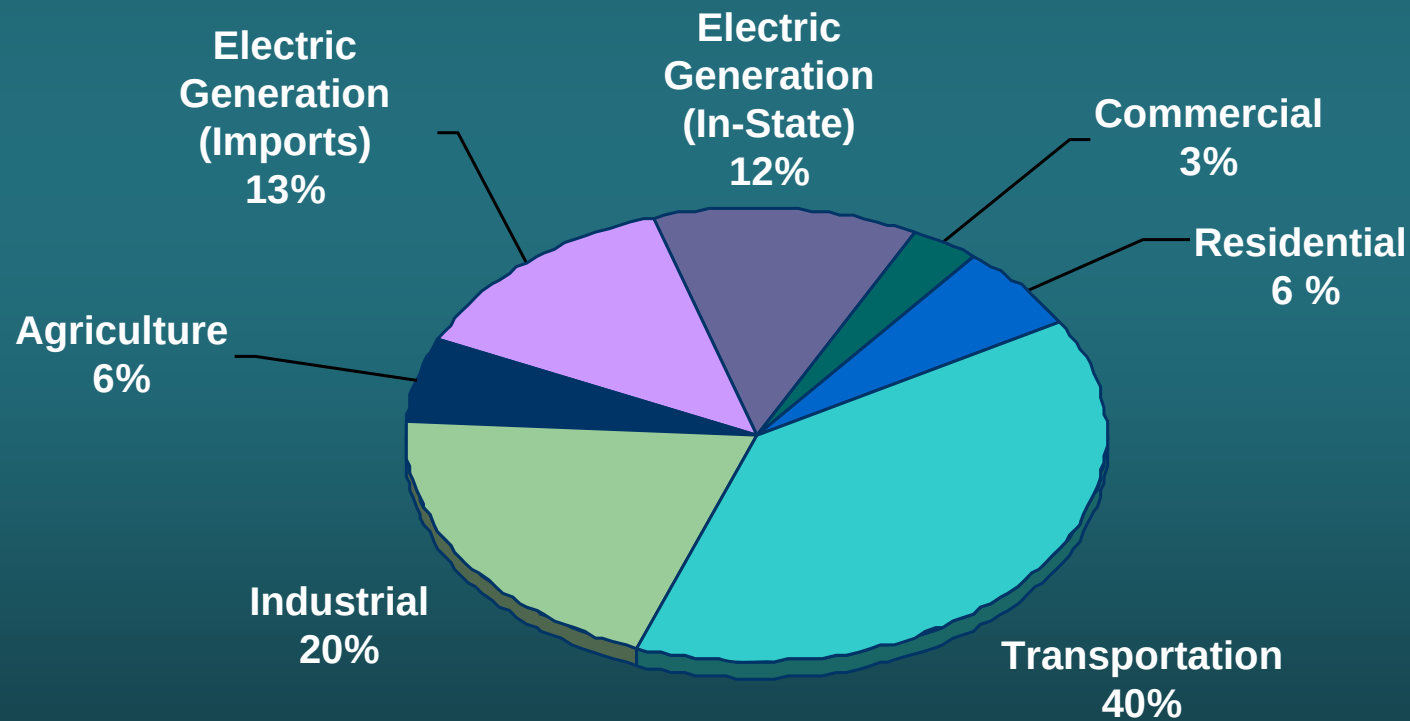
- What is the RCAP?
- Policy Drivers
- Planning Process
- Timeline
- Transportation Emissions
- Transportation Scenario
- Next Steps

What is the RCAP?

- Long-range policy plan (2030)
- Focus on transportation, electricity, and natural gas sectors
- Complement to Regional Energy Strategy 2030 Update
- Feed in to SANDAG Regional Transportation Plan (RTP) and Regional Comprehensive Plan (RCP)

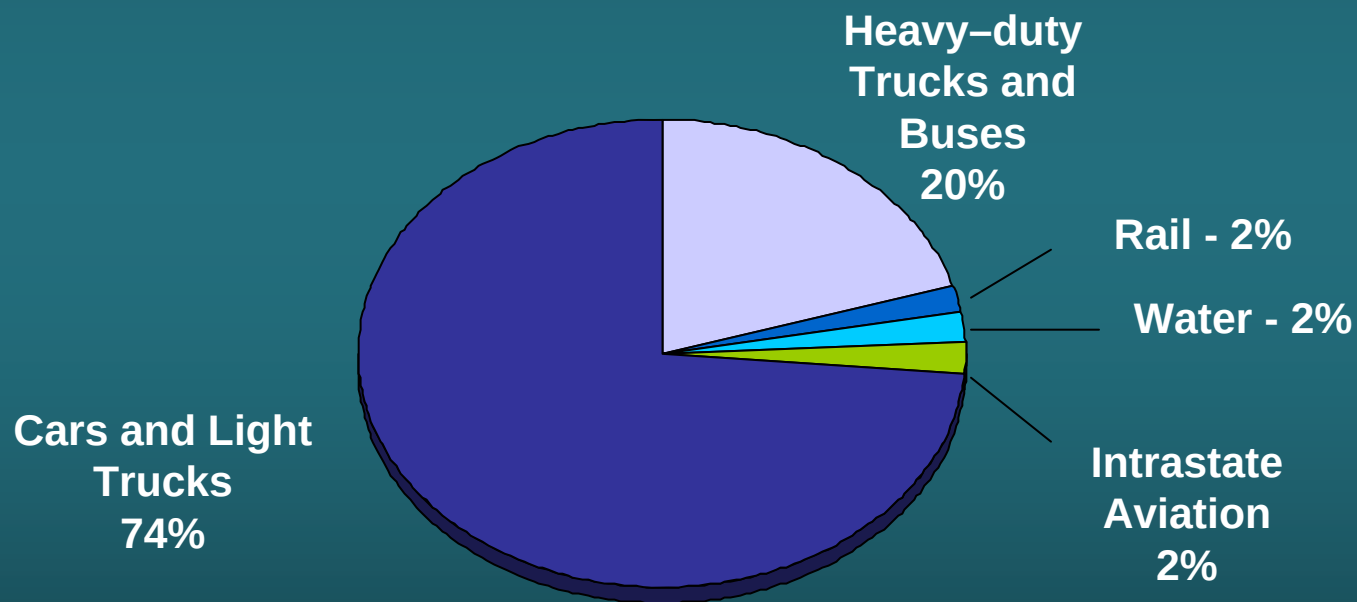
What Contributes to Greenhouse Gas Emissions?

Statewide Greenhouse Gas Emissions by Sector in 2004



What Contributes to Transportation's Greenhouse Gas Emissions?

Statewide Transportation Greenhouse Gas Emissions in 2004



RCAP Policy Drivers

- CA Global Warming Solutions Act of 2006
Reduce GHG emissions to 1990 levels by 2020
- Executive Order S-3-05
Reduce GHG emission to 80 percent below 1990 levels by 2050
- CA Senate Bill (SB) 375
- Attorney General comments on RTP
- RTP EIR mitigation measure
- CEC Agreement

RCAP Planning Process

- GHG inventory (1990 to current)
- Business-as-usual forecasts
- GHG test targets
- GHG reduction scenarios
- Policy development

GHG Analysis

RCAP Timeline

- Transportation GHG Analysis: July '08
- Electricity/Natural Gas GHG Analysis: Fall '08
- Policy Development: Fall '08 – Winter '09
- Draft Plan: Winter '09
- Final Plan: Summer '09

On-road Transportation Emissions 2030

RTP Business-as-usual Forecast (22.5 mmtCO₂)

29 percent above current levels

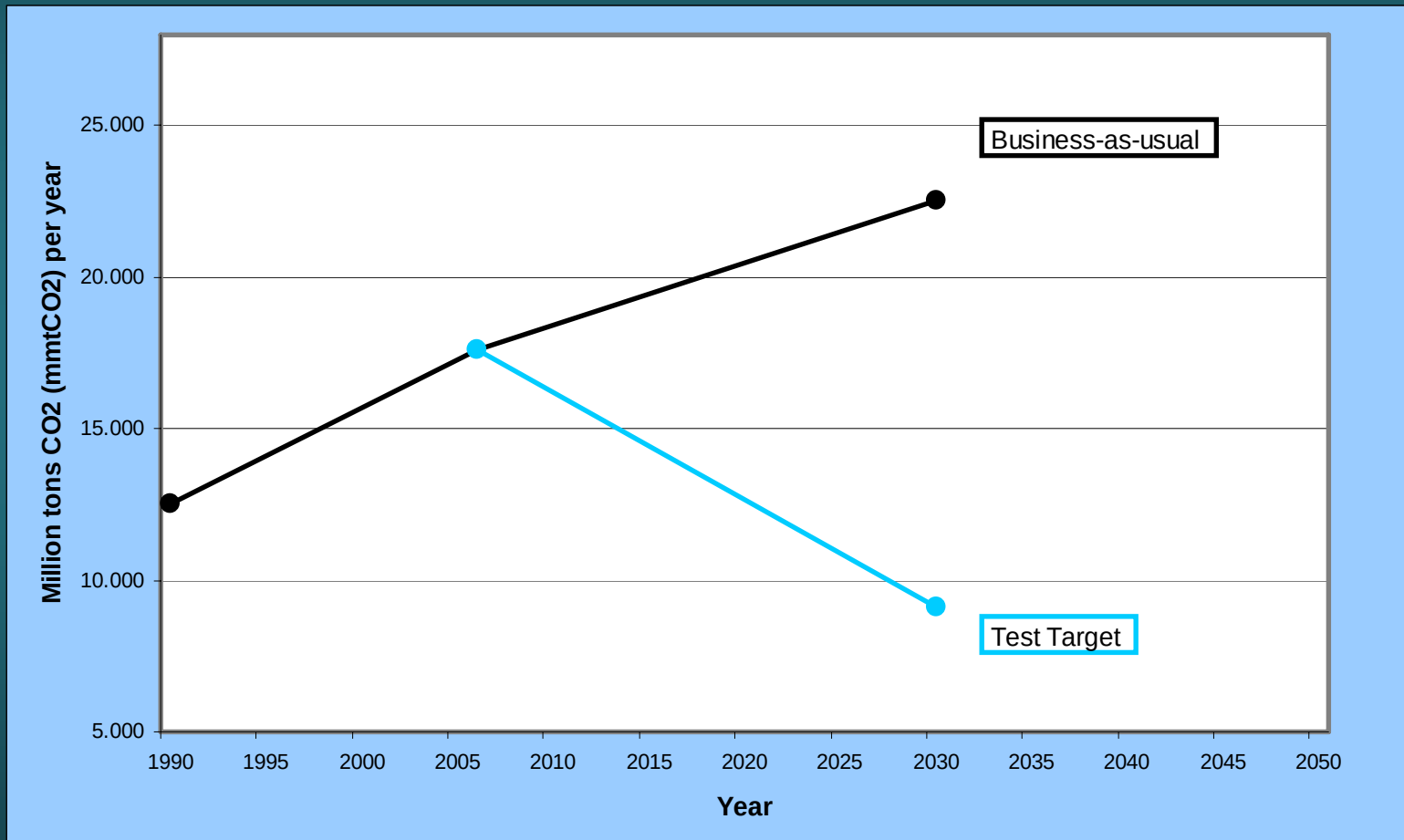
GHG Test Target (9.1 mmtCO₂)

27 percent below 1990 levels

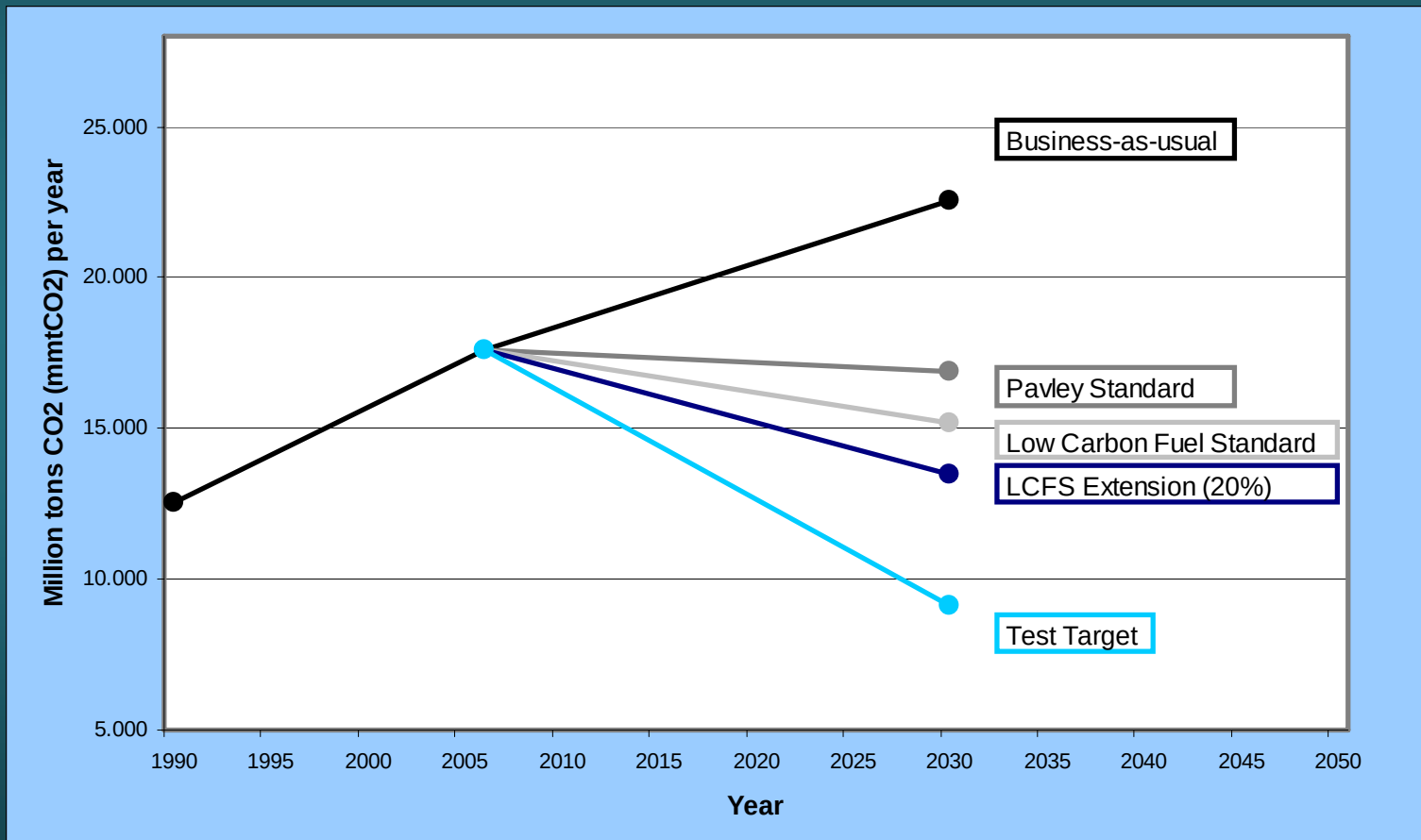
48 percent below current levels

60 percent below 2030 levels

San Diego Regional On-road Transportation Emissions



GHG Reductions from State Efforts: Fuel Efficiency and Alternative Fuels



Regional GHG Reduction Scenarios for Transportation

- Low Carbon Land Use Scenario
 - Smart growth intensifies
- Enhanced Transit Scenario
 - Increase routes and headways
- Transportation Demand Management (TDM)
 - Telecommuting
 - Regional Carbon Fee
 - Pay-as-you-drive Insurance
 - Smart Growth Parking Pricing

Land Use and Transit Assumptions

- Build-out of Smart Growth Concept Map
- New circulator bus service in central San Diego
- Shorter headways for COASTER, light rail, bus rapid transit, regional buses

Enhanced Land Use and Transit Scenario Results

Emissions Outcome: 2.5 to 6 percent reduction

Highlights

- Reduces inter-regional commuting
- Increases share of transit and non-motorized trips
- Reduces VMT

Challenges

- Land use planning mostly impacts increment of new growth
- Current model does not account for full effects of smart growth

Transportation Demand Management (TDM) Assumptions

Telecommuting

- ~33% of workforce, 2x / week

Pay-as-you-drive Insurance

- $\text{Per mile rate} = \text{Average CA premium} / \text{Average regional VMT}$

Regional Carbon Fee

- 20 cent gasoline tax

Parking Pricing

- Pricing in smart growth opportunity areas

TDM Scenario Results

Emission Reduction: additional 17 percent

Highlights

- Increase share of transit and non-motorized trips
- Reduces VMT
- Large reductions from telecommuting and parking pricing

Challenges

- Does not include congestion pricing
- Does not capture indirect benefits that could be obtained by reinvesting new revenue in low-carbon mobility projects

2030 Transportation Emissions

RTP Business-as-usual Emissions:	22.5 million tons CO2
Emissions from RCAP Test Scenario:	10.5 to 11 million tons CO2
Estimated 2030 Emissions Target:	9 million tons CO2

Next Steps

- Develop a 4D modeling tool to better account for results from “smart growth” strategies
Density | Diversity | Design | Destinations
- Improve modeling capabilities for congestion pricing and ridesharing
- Refine transportation policy options with cost-benefit analysis
- Analyze electricity and natural gas sector emissions
Including impact of building standards and distributed generation
- Develop policy recommendations



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