

Strategic Energy Plan Recommendations

Presented by
Sona Coffee, Environmental Programs Administrator

City Council
November 10, 2010

CITY OF IRVINE



Development of the Strategic Energy Plan

- Energy Vision
- Stakeholder Input
- State Mandates & Emissions
- Strategies to Consider
 - Energy Supply
 - Buildings
 - Transportation & Land Use
- Recommended Strategies
- Next Steps

IRVINE'S ENERGY VISION

“The City of Irvine will demonstrate its commitment to leadership and innovation, supporting businesses and residents in adopting affordable, efficient, and resilient energy solutions.”

GUIDING PRINCIPLES

- Innovation: Focused on leading-edge technologies and strategies
- Resilience: Supporting livability, sustainability, and self-reliance
- Practicality: Affordability and efficiency for a prosperous future

Stakeholder Input

- Community Workshops, Stakeholder Meetings, Quarterly updates to the Green Ribbon Environmental Committee
- Several co-benefits resulting from energy reduction strategies



Resiliency & Climate Preparedness



Cost Savings



Health, Wellbeing, & Livability



Support Local Economy



Reduce Traffic & Congestion



Community Priority

STATE GOALS AND MANDATES

BUILDINGS

ENERGY & TRANSPORTATION

MANDATES

Mandate: New Construction

Title 24 - Building Energy Efficiency Standards

- 100% ZNE new residential construction by 2020
- 100% ZNE new commercial construction by 2030

Mandate: Electricity

SB100 - California Renewable Portfolio Standard Program

- 50% renewables by 2026,
- 60% renewables by 2030,
- 100% carbon free by 2045

Mandate: Existing Buildings

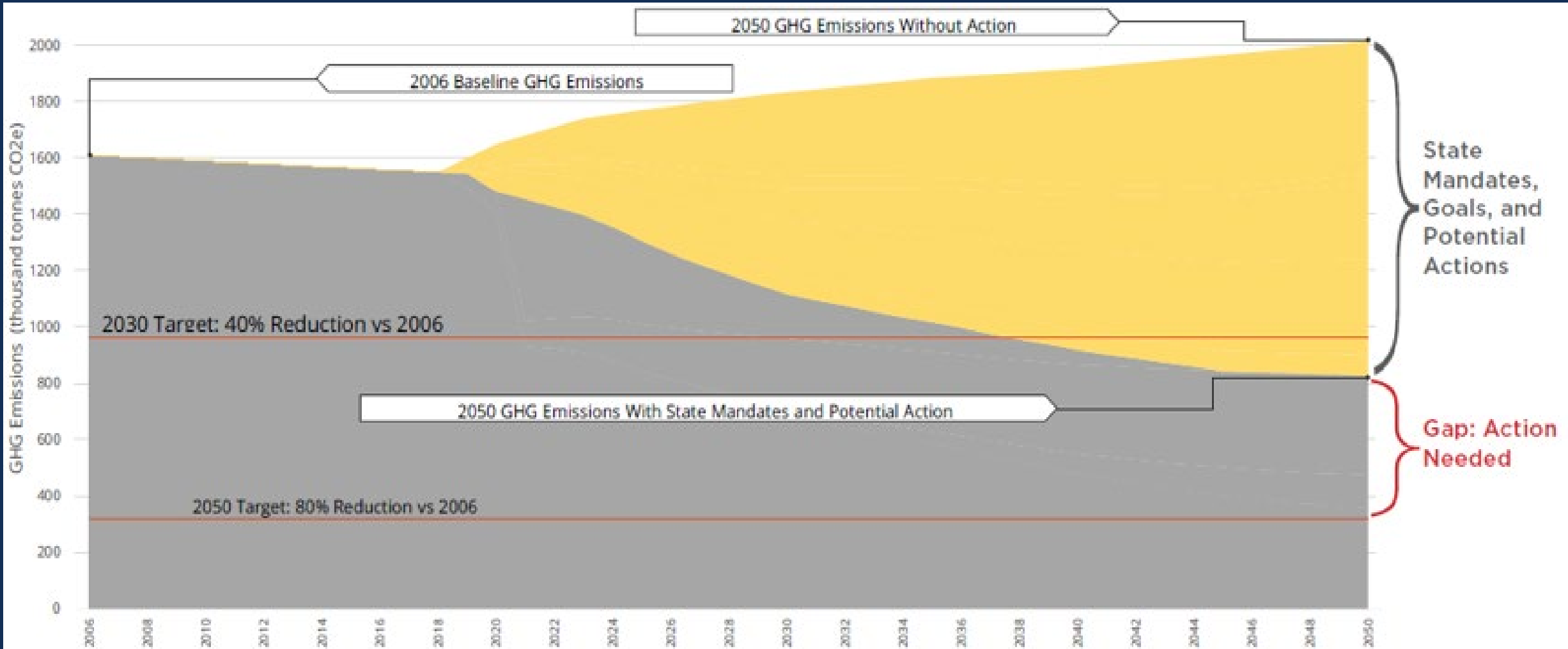
AB 802 - Building Energy Benchmarking Program

- Benchmarking and reporting for buildings >50,000 ft²

Mandate: Fuels

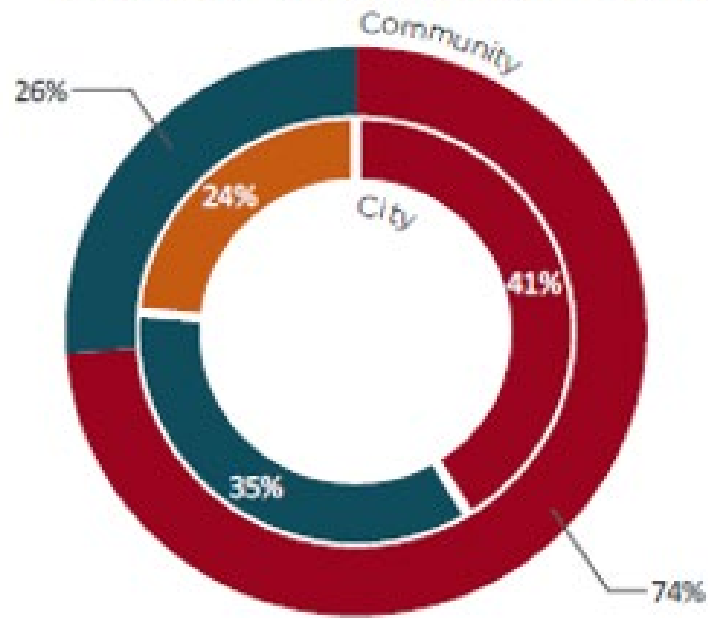
AB-32 - California Global Warming Solutions Act. Low Carbon Fuel Standard

- Reduce carbon intensity of transportation fuels by minimum 20% by 2030



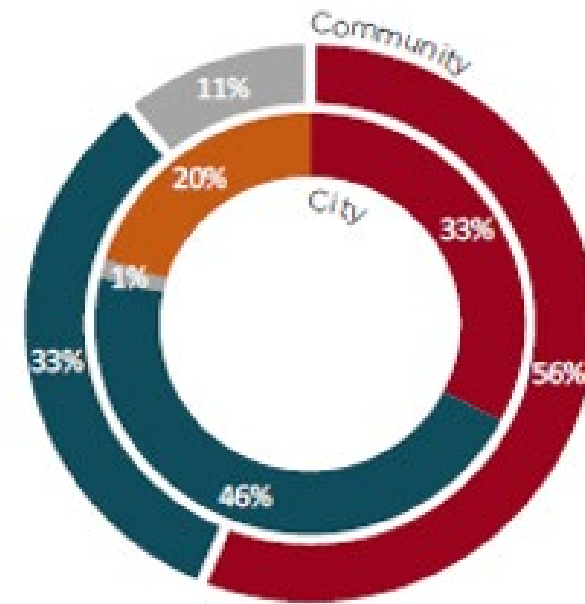
Impact of State Mandates and Goals on City of Irvine GHG Emissions

Energy Use Breakdown



■ Buildings ■ Transportation ■ Services

Operational Emissions Breakdown














■ Facilities ■ Transportation ■ Waste ■ Services

Strategies to Consider: Energy Supply











ENERGY SUPPLY	Number	Action	Co-Benefits
	ES-1	Join a CCE Electricity Supplier	
ES-2	Portfolio-wide Procurement for City Facilities	  	

Strategies to Consider: Buildings

BUILDINGS	Number	Action	Co-Benefits
	B-1	Develop a Community-Facing Energy Upgrade Program	   
	B-2	Reduce or Remove Administrative Obstacles to Energy Storage, Electric Vehicles, and Building Electrification	 
	B-3	Decarbonize City Facilities	  
	B-4	Develop Decarbonization Roadmap	 

Strategies to Consider: Transportation & Land Use

TRANSPORTATION AND LAND USE

Number	Action	Co-Benefits
TLU-1	Reduce emissions from City Fleet Vehicles and Employee Commute	  
TLU-2	Incentivize Sustainable Transportation Modes for Residents and Businesses	  
TLU-3	Develop a Comprehensive Electric Vehicle Action Plan	   

Recommended Strategies

1. Issue a request for comprehensive energy services at City facilities to include:
 - Assessment of building decarbonization potential.
 - Update electricity capacity needs to meet future EV charging demands.
 - Objective: To minimize capital expenses and reduce future energy costs.
2. Develop plan to transition the City's fleet to electric vehicles to prepare for the State's 2035 mandate:
 - Identify funding opportunities, and
 - Issue a request for services to assist in planning efforts.

Next Steps

- City Council input on energy-related priorities for staff to focus on.
- Staff will return with next steps on recommended strategies, including cost-benefit information and availability of grant opportunities, Public-Private-Partnerships, etc.



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