

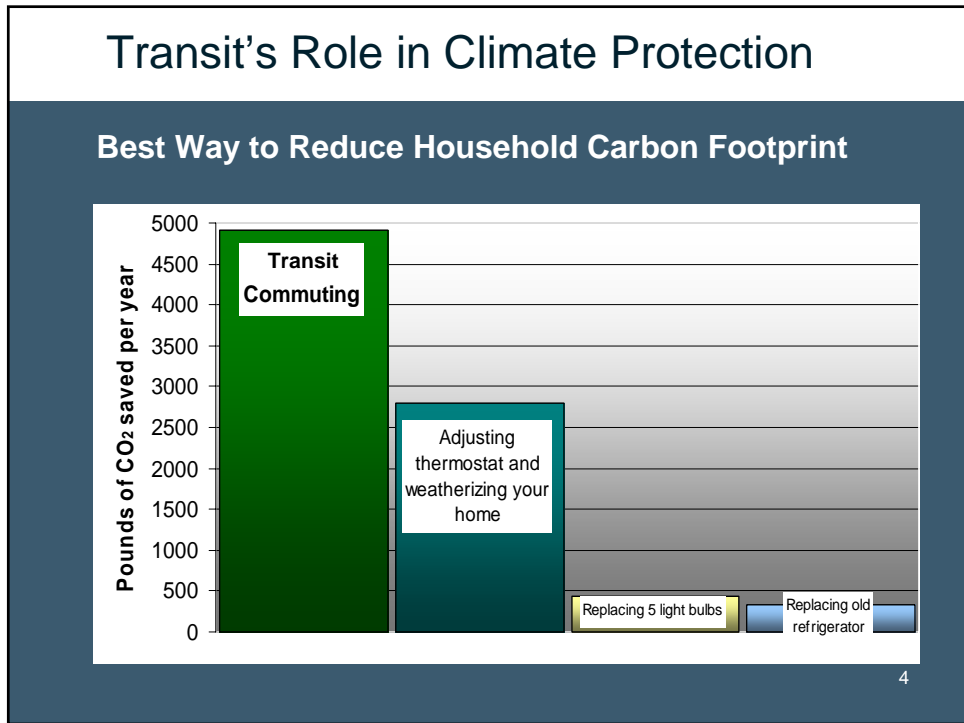
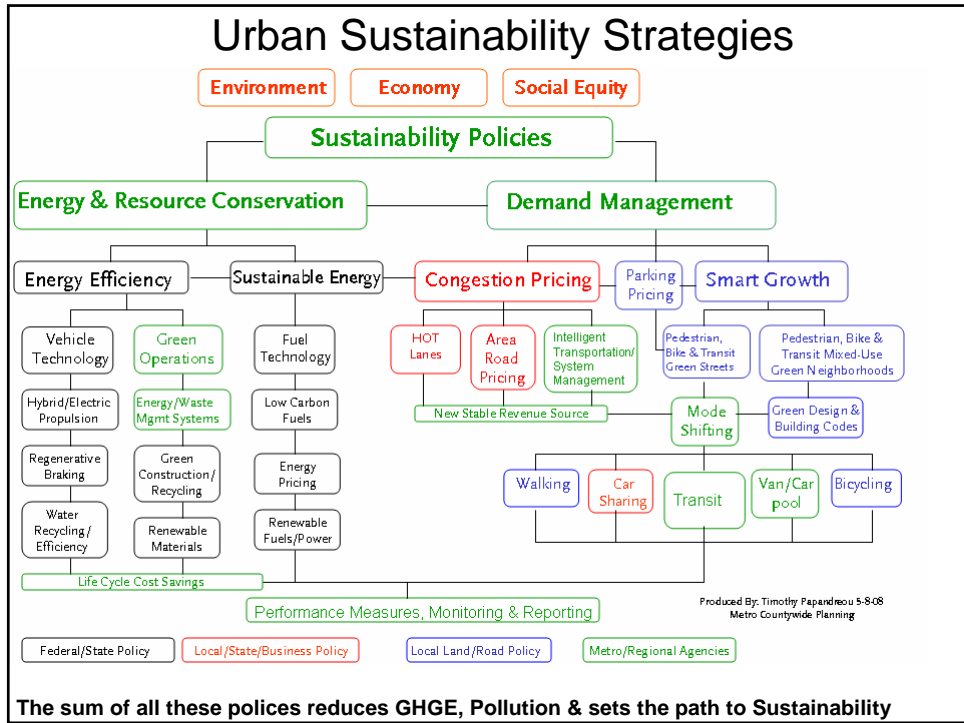
Transit's Role in Climate Change Planning



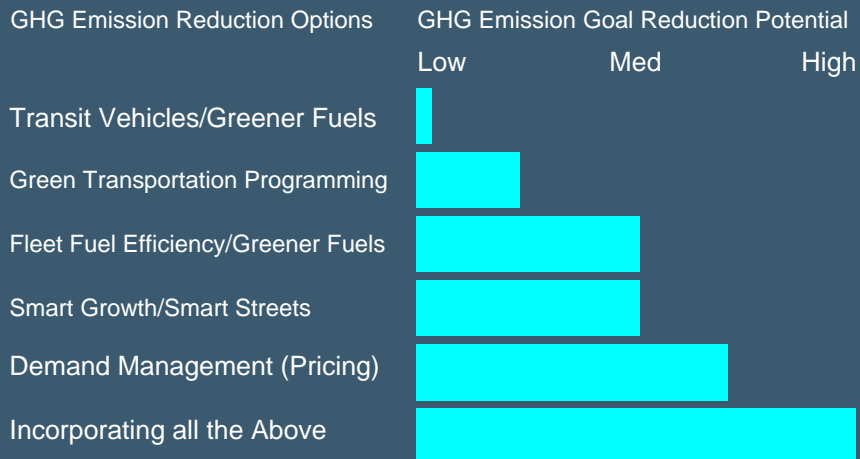
California Transit Association AB 32 Webinar
September 3, 2008

Presentation Overview

- Transit in Sustainability & Climate Change
- Carbon Footprint / Shadow
- Options & Goal Reduction Potential
- Sustainability Implementation Framework
- Challenges
- Transit's Role & Recommendations



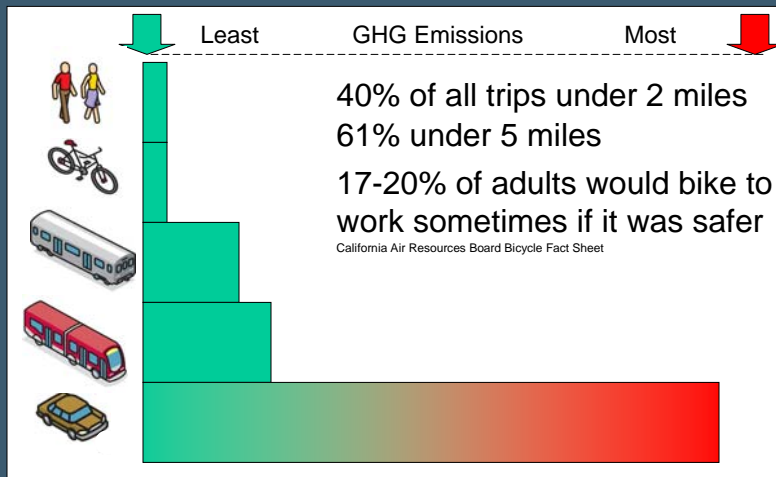
Regional Transportation GHG Emission Reduction Options & Goal Reduction Potential



The sum of all options provides the greatest chance in reducing the countywide transportation sector's contribution to Climate Change.

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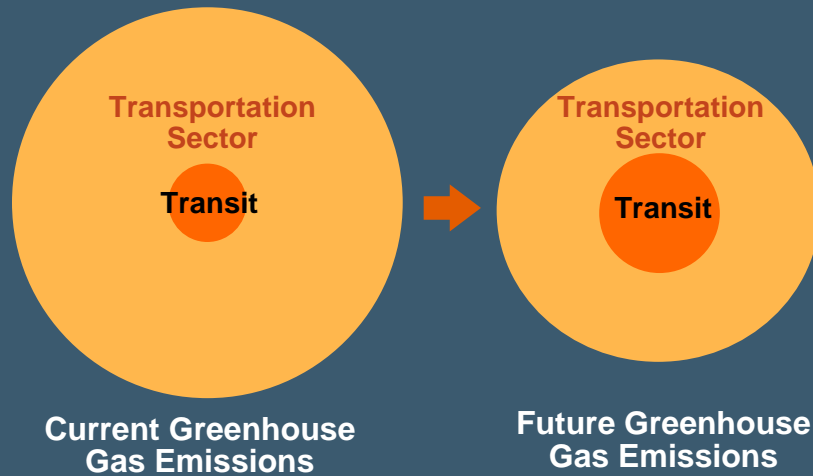
GHG Emissions by Mode



Walking, Bicycling and Transit is the most sustainable form of transportation

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Surface Transportation Carbon Shadow



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Calculating Transportation Footprint/Shadow

Carbon Footprint-Agency's actual energy use

Carbon Shadow- Indirect carbon emissions from:

- VMT (land-use, road design, parking & pricing policies) &
- Energy Consumption (Congestion, State & Federal transportation vehicle, fuels and funding policy)

Gross Transportation Emissions _____MMT CO₂e
(Transit/Auto Energy Consumption, other emissions)

CO₂e Displacement _____MMT CO₂e
(Mode Shift: Transit, Ped, Bike/Green Energy)*

Net Transportation Emissions _____MMT CO₂e

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1. Transit as Part of the Solution

“the (auto) trip not taken”

- Sustain Service
- Enhance Capacity
- Coordinate with Land Use
- Early Actions
 - Service, fares, marketing, access
- Increase Coverage

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Sustainable Mobility Corridors Concept



- Coordinate Modes, TOD opportunities, ITS in Corridor
- Identify and close gaps in multi-modal system & Build Green
- Reduce Peak Freeway and Parking Demand (Mode Shifting)
- Metro Orange Line-1/3 of new riders were US-101 commuters
 - Bicycling, Transit increases and 4 new TOD underway

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Sustainable Mobility Transit Boulevards



Universal Design Concept

- Complete & Green Streets and Transit Supportive Land-Uses
- Integrates multi-modal transportation infrastructure, information, operations, energy inputs with the land uses at the design phase¹¹

2. Sustainable Business Practices

- Energy Efficiency / Carbon Intensity
 - “Green” Facilities Standards
 - Transit Fleets
- Environmental Management System
- Cleaner Power



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3. Leadership

- Communications
- Partnerships
- Lead by example



Fight global warming.



Challenge to Sustainability/Climate Action in Transit/Transportation Agencies

- Perfect Storm heading to Transit Sector
 - Record Transit Ridership Growth
 - State and Federal Budget cuts in Transit
 - Record Energy Cost Increases
 - Fare increases becoming increasingly more difficult to approve
 - Draft Scoping Plan does not adequately acknowledge Transit's role but policies shift toward more Transit use
 - New Zero Emission Bus Rules and other regulations

Challenge to Sustainability/Climate Action in Transit/Transportation Agencies

- Public Transportation sector needs to engage Carbon Fee/Trading policies more aggressively
- State/Federal agencies need to coordinate forecast models (Energy, Travel, Air Quality, Economic)
 - Trip Generation Methodology and Environmental Mitigation relies too heavily on autos
 - Methodology needed for Smart Growth, Complete Streets, Bikes & GHG emissions
- Post AB 32, still no CEQA or EPA guidance on GHG emissions analysis opens CA agencies to legal challenges
 - Office of Planning & Research Developing guidelines
 - Next Federal Re-Authorization/Overhaul is key

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AB 32 Scoping Plan and Transit Role

- Role of Public Transit in Transportation Sector in Regional GHG:
 - Mode-shifting is best strategy to reduce Vehicle miles traveled (VMT)
 - Aligns with Scoping Plan's recommendations to reduce emissions through decreasing VMT
 - Impact on transit's operating costs & capital projects
 - Results in fewer cars on the road
 - A single person saves 4,800 pounds of CO₂e per year when switching to transit

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AB 32 Scoping Plan and Transit Role

- Increase its share of transportation sector emissions to achieve overall reduced regional emissions
- Current GHG accounting does not address transit's trip displacement benefits (congestion, land-use multiplier effect)
- Benefits of vehicle efficiency & lower carbon fuels will be lost due to VMT growth.
 - Transit is a regional GHG stabilization tool.
- Lower carbon intensity per passenger mile than autos
 - 95 percent less carbon monoxide (CO)
 - 90 percent less volatile organic compounds (VOCs)
 - 50% of CO₂ and nitrogen oxide (NO_x)

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Transit recommendations for Scoping Plan

- AB 32 Actions should strengthen existing transportation Funding Base
- Prioritize transit as an eligible recipient of carbon fee market mechanisms and other carbon-based revenues
 - Transit and compact growth should be eligible for consideration as an offset
- Update & Coordinate Modeling Tools among State Agencies

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Transit recommendations for Scoping Plan

- **Incorporate GHG Traffic Mitigations & Adaptation in California Environmental Quality Act**
 - Include transit, demand management and non-motorized best practices as acceptable local traffic mitigations
- **Promote Transit Education, Public Outreach & Staff Training Opportunities**
 - Similar to Flex Your Power eg: “Flex your Commute”
 - Coordinate with CTA and APTA to incorporate GHG emission analysis & metrics

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