

# Summary of Metro's *Completed*Sustainability Efforts

Supplement to the Report to the Ad Hoc Sustainability and Climate Change Committee

January 23, 2008



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#### **Outline**

- Air Quality
- Energy
- Other Sustainability and Climate Change Initiatives

## Sustainability: Air Quality

### Planning for Sustainable Transportation Corridors



- Integrated approach to improving air quality
- Metro Orange Line
  - Integrated transitway, bikeway & landscaped pathway
  - 1/3 of new riders former commuters along US-101

## **Integrated Planning and Management and Air Quality**

- Work with our Smart Growth partners to reduce our region's Carbon footprint
  - Encourage comprehensive planning and development around station sites and along transit corridors
  - Reduce auto use and congestion through the encouragement of transit-linked development
  - Metro Joint Development Group
    - Completed Projects
      - Hollywood + Highland: Red Line, 2000
      - Hollywood + Western: Purple Line, 2004
      - Del Mar: Metro Gold Line, 2007
      - Sierra Madre Villa, Gold Line, 2007
      - Wilshire + Vermont Apts: Red/Purple Line, 2007
    - ~23 Other Projects in Construction or in Review

### **Funding Sustainable Transportation Projects**

- Over the last 10 years, Metro has allocated over \$300 million to Pedestrian, Bike, Transit Demand Management (TDM) & Transportation Equity Act (TEA) projects
  - These investments have enhanced accessibility and connectivity to Metro's transit system
  - Improve the efficiency of existing transportation infrastructure
  - Encourage alternative and green technologies

## Metro's Expanding Transit Network Creates Opportunities

- Metro's transit network continues to expand
  - The Metro rail system increased from 22 miles in 1990 to 73 miles in 2003 with completion of the Metro Gold Line to Pasadena
  - In 2000, the Metro Rapid program operated along 42 miles.
     By 2008, Metro Rapid service will operate a network of 450 miles
  - Metro operates the second largest bus fleet in the nation
- Cities have a unique opportunity to develop and implement smart growth planning by connecting and integrating with this expanding transit network

## **Commuter/Employer Programs and Air Quality**



- Rideshare partnerships with employers, businesses, colleges and universities and similar groups
- Promote "Green Thinking" through an increase in transit, carpooling, vanpooling, walking, biking, car-sharing & telecommuting opportunities for employees & students

#### **Emission Reduction Efforts**



- Nation's 1<sup>st</sup> and Largest Compressed Natural Gas (CNG) Fleet: Almost 2,500
- 97% cleaner than retired diesel buses (Low Carbon fuel)
- All diesel buses remaining use ultra low sulfur diesel fuel
- All buses have bike racks for multi-mobility

## **Sustainability: Energy**

### **Current Energy Efficiency and Conservation Efforts**

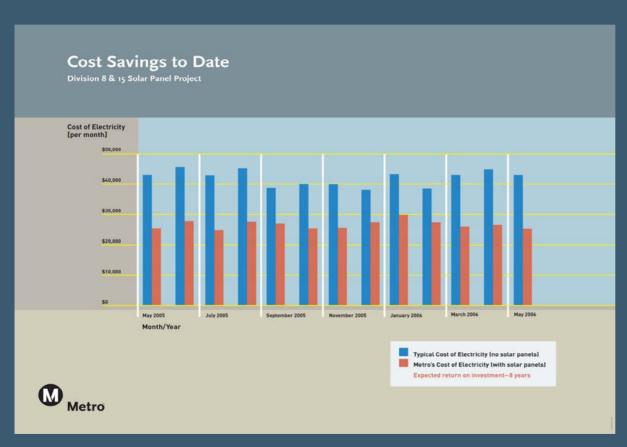
- Energy and Sustainability Policy
  - Adopted in June 2007 to make capital improvements that lower Metro's utility bills as well as decrease our reliance on non-renewable energy sources
  - Need to enhance policy to include other sustainability principles
- Division Lighting Upgrades
- Division HVAC Upgrades
- Gateway Building Energy and Water Efficiency Upgrades
- Retrofitted escalators with power-saving motor controllers

## **Energy Efficient and Sustainable Buildings**



- Project uses 33% less Electricity & 50% less Water saving over \$75,000 annually in utility costs alone
- LEED Silver rating minimum on all new Metro projects and Transit-Oriented Developments

## Renewable Energy Efforts



- •Metro has built the largest solar generation facility in the transit business
- •Saves \$165,000 in electricity costs per year
- •Through incentives, Metro paid only 45% of capital costs
- •Return on investment is less than 8 years

## **Division 18 Solar Panel Project**



- Largest solar installation (850 KW) in the transit industry
- Metro saves more than \$400,000 on electricity costs
- 417 kW or 1600 panels
- Completed November 2007
- Saves \$300K/year with 11 year return on investment

## Sustainability: Other Sustainability and Climate Change Initiatives

## **Sustainable Transportation Corridors**

- Gold Line Transportation
   Corridor
- Del Mar Joint Development
  - Completed in 2007
  - 347 apartments
  - 11,000 square feet of ground floor retail
  - Integrated Public Plaza
  - 600 Transit Parking Spaces
- Sierra Madre Villa
  - 188 apartments
- Filmore Development
  - Under construction
  - Medical Office Building
  - 160 transit parking spaces



## **Sustainable Transportation Corridors**



- Orange Line Brownfields Redevelopment
- Integrated transitway, bikeway & landscaped pathway
- Use of recycled road base materials
- Planting and installation of trees & drought tolerant plants

## Sustainable Transportation Corridor Design



- Continue redevelopment of brownfield sites
- Use of low emitting diode stoplights
  - Does not use as much electrical power as regular lights
- Installation of piping for future reclaimed water
- Stormwater absorbed back into ground
  - Reduce chemical pollutants and trash impacts on ocean