

# San Jose City Airport Fleet Project



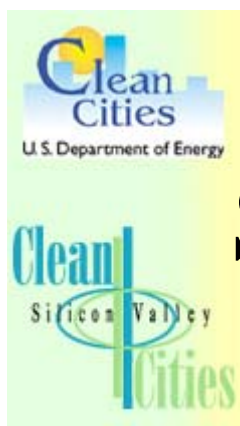
SAN JOSE  
INTERNATIONAL  
AIRPORT



# San Jose City Airport Fleet Project

- Hurdles & Barriers:

- Get support from management to design, build, operate, own and market a CNG station
- Choose a site that's visible and accessible
- Determine how much fuel station will need per day and make sure the natural gas line from the local utility can provide that amount
- Prepare plans and specifications upon which to construct and operate station
- Find money to finance the project
  - Infrastructure
  - Vehicles
- Make alternative fuel affordable – especially to public
- Network with CNG vehicle OEMs and CNG vehicle conversion companies
- Monitor and record all revenue and expenses from station including net savings
- Invest a part of net savings in grant programs to promote CNG vehicle conversion



# San Jose City Airport Fleet Project

- Solutions:
  - Site
    - Selected site accessible to public – opened August 2003
    - San Jose City airport became only airport in California to own Compressed Natural Gas (CNG) fueling station
    - CNG station sized with capacity to potentially dispense 4,000,000 gallons/year to service 100% of airport shuttle bus fleet by 2008, all city CNG vehicles, and to provide CNG fuel to new City CNG vehicles and existing or new private/public CNG fleets and CNG vehicles

# San Jose City Airport Fleet Project

- Solutions:
  - Financing
    - CNG Station cost \$3.3M to build, of which \$750K came from grant money from California Energy Commission (CEC)/Santa Clara Valley Transportation Authority and balance (\$2.55M) was funded from Airport Revenues (no taxes)
    - Secured \$1.75MM in grants for purchase of two fleets of CNG buses (purchase cost at over \$20M) from CEC and Bay Area Air Quality Management District (BA AQMD) – making all (34) airport shuttle buses powered by CNG by 2008



# San Jose City Airport Fleet Project

- Solutions:
  - Making alternative fuel/conversion affordable and obtainable—especially to public:
    - Via unique Outreach using station revenue, federal excise tax credits, and other incentives to get public to embrace CNG vehicle conversion
    - Provide low cost CNG fuel at \$1.00 - \$1.50/gallon lower than conventional gasoline

# San Jose City Airport Fleet Project

- Solutions:
  - Recorded savings in 4 years SJC Airport:
    - Eliminated over 1,160,000 gallons of diesel by using 20 CNG buses at a fuel cost saving of \$2,630,000
    - Eliminated 15,000 gallons of gasoline by using 10 other Airport CNG vehicles at a fuel cost savings of >\$38,000
    - Have obtained over \$170K in federal excise tax credits on CNG fuel dispensed from station
    - Trying to obtain \$448,000 in federal vehicle tax credits on new CNG buses



# San Jose City Airport Fleet Project

- Today's activity shows:
  - 30 Airport Vehicles/Shuttle Buses or 25% of fleet are CNG
  - 120 Airport Taxis are or 40% of fleet are CNG
  - 3,300 CNG fuel purchase transactions per month (on average)
- Tomorrow's Outreach Plan – Pursuing outreach with:
  - Taxis
  - Door-to-Door shuttle/vans and private sector to encourage CNG vehicle conversion
  - Other Private fleets





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- Other information:
  - SJC's CNG Station registered in 2006 by IRS as Alternative Fueling Station
  - IRS Tax Credit (\$0.50/gal.) for CNG Fuel dispensed from SJC's station = >\$250,000/year at current fueling from station
  - SJC considering use of station revenues for grant funding to assist public in purchase of CNG vehicles
  - Current Outreach program will include a \$150K special grant program to encourage public conversion to CNG vehicles





# San Jose City Airport Fleet Project

## IRS Tax Credit on New Alt. Fuel Vehicles

<b>Vehicle Type</b>	<b>Incremental Cost (IC) Limit</b>	<b>Tax Credit @ 50% of IC</b>	<b>Tax Credit @ 80% of IC</b>	<b>Out of Pocket Incremental Cost</b>
<b>Car</b>	<b>\$4,000</b>	<b>\$2,000</b>	<b>\$3,200</b>	<b>\$800</b>
<b>Pickup</b>	<b>\$7,000</b>	<b>\$2,500</b>	<b>\$4,000</b>	<b>\$3,000</b>
<b>Pickup</b>	<b>\$10,000</b>	<b>\$5,000</b>	<b>\$8,000</b>	<b>\$2,000</b>
<b>Med. Duty</b>	<b>\$20,000</b>	<b>\$10,000</b>	<b>\$16,000</b>	<b>\$4,000</b>
<b>Heavy Duty</b>	<b>\$40,000</b>	<b>\$20,000</b>	<b>\$32,000</b>	<b>\$8,000</b>

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## **Grant Fund Sources – to Assist in Purchase of Vehicles**

- Bay Area Air Quality Management District (BAAQMD) Funding
  - Transportation Fund for Clean Air (TFCA)
  - Vehicle Incentive Program (VIP)
- California Energy Commission (CEC)
- Carl Moyer Program (CMP)
- California Air Resources Board (CARB)
- San Jose Int’l Airport (SJC)

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## Example of Incentives — New Vehicle

- Cost of New Van (Ford E350) \$25,000
- Cost to Convert to CNG \$16,000
- IRS Tax Credit \$16,000
- BAAQMD grant \$4,000
- SJC Grant \$4,000
- Net Purchase Cost \$17,000
- Amortized Cost 5.5 years

(100 miles/day @ 12 mpg  
@\$1.00/gal fuel savings)



# San Jose City Airport Fleet Project

## Example of Incentives—Used CNG

- Cost of Used Van (Ford E350) \$12,000
- Cost to Convert to CNG \$0
- IRS Tax Credit \$0
- BAAQMD grant \$0
- SJC Grant \$4,000
- Net Purchase Cost \$8,000
- Amortized Cost 2.6 years

(100 miles/day @12 mpg  
@\$1.00/gal fuel savings)



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## Summary of approaches to a **Green Fleet**

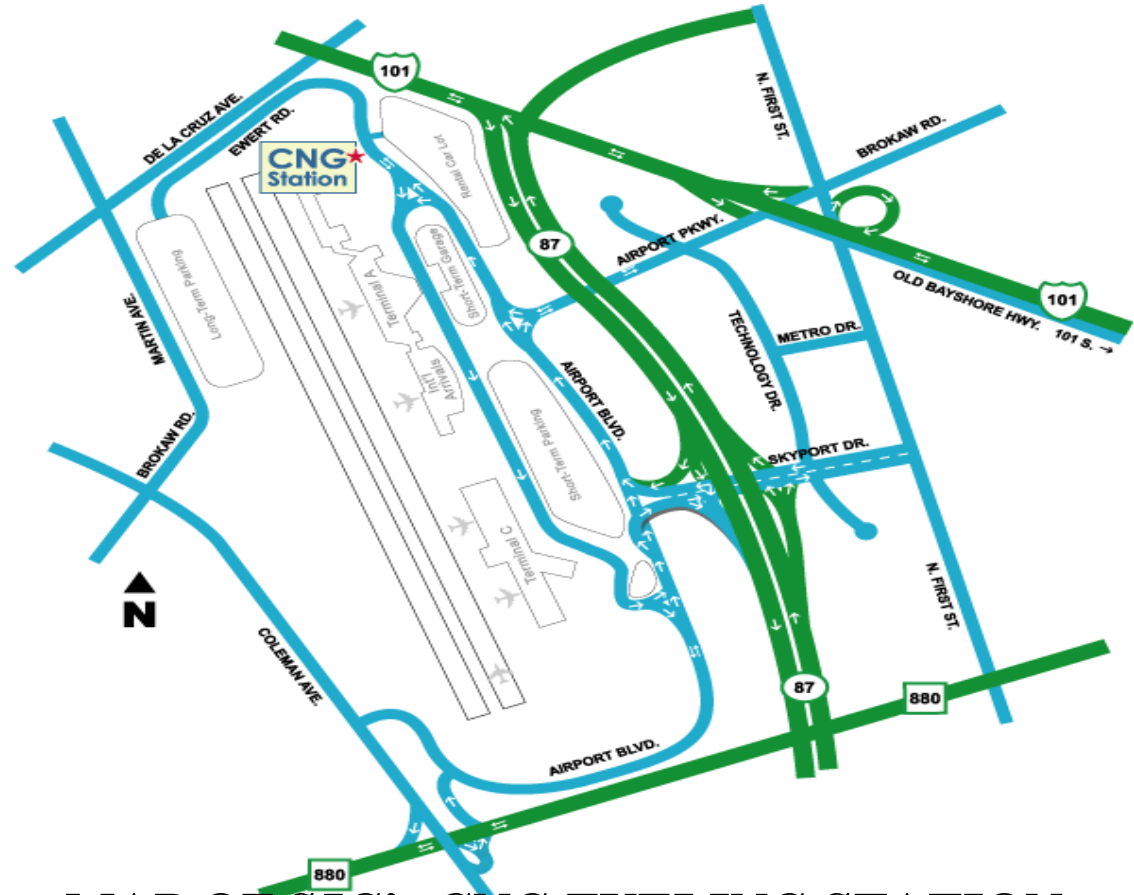
- **Commitment from Management**
- **Solicit Assistance from Legislators/Air Districts**
- **Join/Network with Alt Fuel Organizations**
- **Inventory Vehicles**
- **Conduct Cost-Benefit/Life-Cycle Analysis on CNG Replacements/Conversions**
- **Pursue Innovative Funding Sources**
  - Grants
  - Low Cost Fueling
  - Tax Credits
- **Implement Other Incentives**

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## Low Cost Source of CNG Fuel— SJC's CNG Fueling Station



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**MAP OF SJC's CNG FUELING STATION**