San Jose City Airport Fleet Project
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
San Jose City Airport Fleet Project

• 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
## IRS Tax Credit on New Alt. Fuel Vehicles

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>Incremental Cost (IC) Limit</th>
<th>Tax Credit @ 50% of IC</th>
<th>Tax Credit @ 80% of IC</th>
<th>Out of Pocket Incremental Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car</td>
<td>$4,000</td>
<td>$2,000</td>
<td>$3,200</td>
<td>$800</td>
</tr>
<tr>
<td>Pickup</td>
<td>$7,000</td>
<td>$2,500</td>
<td>$4,000</td>
<td>$3,000</td>
</tr>
<tr>
<td>Pickup</td>
<td>$10,000</td>
<td>$5,000</td>
<td>$8,000</td>
<td>$2,000</td>
</tr>
<tr>
<td>Med. Duty</td>
<td>$20,000</td>
<td>$10,000</td>
<td>$16,000</td>
<td>$4,000</td>
</tr>
<tr>
<td>Heavy Duty</td>
<td>$40,000</td>
<td>$20,000</td>
<td>$32,000</td>
<td>$8,000</td>
</tr>
</tbody>
</table>
San Jose City Airport Fleet Project

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)
San Jose City Airport Fleet Project

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)
San Jose City Airport Fleet Project

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
San Jose City Airport Fleet Project

Low Cost Source of CNG Fuel—
SJC’s CNG Fueling Station
San Jose City Airport Fleet Project

MAP OF SJC’s CNG FUELING STATION