SANBAG / Ryder Trucks

Natural Gas Truck Project Update

California Energy Commission PIER Program Meeting

July 13, 2010

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Project Overview

- First natural gas truck deployment in a commercial truck rental and leasing operation
- $19.3 Million in Federal & State Funding
  - 202 Heavy-Duty Natural Gas Trucks (LNG & CNG)
  - 2 Public Access LNG/LCNG Refueling Stations
  - 3 Maintenance Shop Upgrades for NGV Repair
  - Personnel & Customer Training
  - Project Management & Administration
  - Project PR & Marketing

About SANBAG

- The council of governments and transportation planning agency for the 2 million residents of San Bernardino County.
- Responsible for cooperative regional planning and furthering an efficient multi-modal transportation system countywide.
- Supports freeway construction projects, regional and local road improvements, commuter rail and bus transit, freeway service patrol, ridesharing and congestion management efforts.
- Administers Measure I (half-cent transportation sales tax approved by voters in 1989 and again in 2004)

About Ryder Trucks

- Provides leading-edge transportation, logistics and supply chain management solutions worldwide
- 399th on the FORTUNE 500®
- Offer short-term rentals, long-term leases, or Ryder's dedicated logistics services
- 1,200 customers and 6,500 trucks in SoCal

Strong Executive Level Support

"As an industry leader for almost 80 years, Ryder remains committed to leveraging its expertise and the latest technologies to deliver world-class transportation products and services that build long-term value for our customers," commented **Tony Tegnelia, President of Global Fleet Management Solutions** for Ryder. "With more than 1,200 customers and 6,000 commercial trucks operating in the Southern California region, this project represents a tremendous opportunity to expose Ryder's large and diverse commercial customer base to a leading-edge, environmentally sound and efficient fleet solution."

Project Funding

$36.3 Million TOTAL PROJECT COST

$9.308 Million

- California Energy Commission (CEC) Assembly Bill 118 Alternative and Renewable Fuel & Vehicle Technology Program.

$9.95 Million

- American Recovery and Reinvestment Act of 2009 (ARRA) through the U.S. Department of Energy's (DOE) Alternative Fuel and Advanced Technology Vehicles Pilot Program

$17.06 Million

- Ryder Trucks

Annual Project Benefits

Energy Security, Green Jobs + Emission Reductions

- Displace 1.51 Million Gallons of Diesel Fuel Use
- Use Nearly 3.0 Million Gallons of Domestically Produced Low Carbon LNG
- Create & Sustain 400+ Jobs
- Reduce 4,194 Metric Tons of GHG Emissions
- 131 Tons of NOx Reductions
- 2.65 Tons of Diesel PM Emissions Eliminated

CNG Straight Trucks

CNG

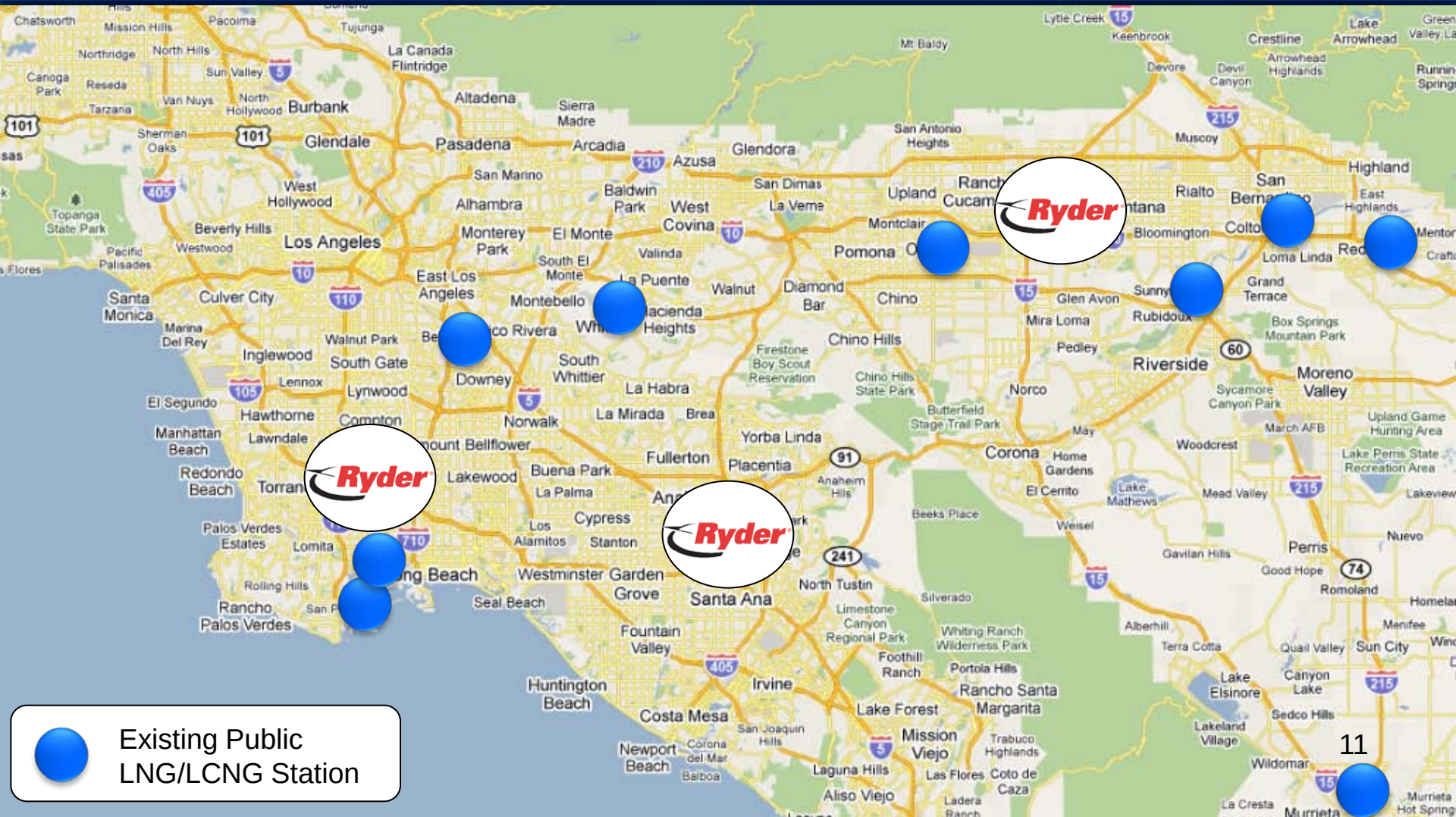
LNG & CNG Tractors

LNG Tractors

CNG Tractor

New NG Truck Maintenance

New Public LNG/LCNG Fueling



Interstate Clean Transportation Corridor (ICTC)

Interstate Clean Transportation Corridor (ICTC)

- Most successful planned clean fuel corridor in the U.S.
- Public-private partnership with multiple federal, state and local public agencies
  - Founding Members: US DOE, CEC, & SANBAG
- Initiated in 1996
- Directed by GNA
- Multiple Awards

California Environmental Protection Agency
Air Resources Board

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Ryder

Natural Gas Truck Project

Orange LNG/LCNG Station

EXISTING FUEL AND WASH AREA

EXISTING DIESEL DISPENSERS

NEW DUAL HOSE CNG DISPENSER AND ISLAND

FUTURE DUAL HOSE CNG DISPENSER AND ISLAND

FLOW

EXISTING DRAINAGE CHANNEL

DEMOLISH AND RELOCATE EXISTING EQUIPMENT ENCLOSURE

LNG RECEIVING CONNECTION

RELOCATE EXISTING FIRE HYDRANT

NEW LNG TANK CONTAINMENT AND TANK

NEW LNG MCC AND CONTROL PANEL

CUT BACK FENCE

EXISTING FENCE TO REMAIN

EXISTING MAINTENANCE BUILDING

REMOVE PLANTERS AND CURBS

MAIN ACCESS GATE

NEW DUAL HOSE PUBLIC ACCESS CNG DISPENSER AND ISLAND

RELOCATE FH AND RYDER SIGN

RECONFIGURE STREET ISLAND TO PERMIT LEFT TURNS BY NORTH BOUND TRAFFIC

MAIN STREET

New Public LNG/LCNG Fueling

Barstow LNG Station

Tulare LCNG Station

Training

- Natural Gas Engine Maintenance
- On-Board LNG Tank Maintenance
- CNG Tank Inspections
- Fuel Station Operations & Routine Maintenance
- NG Truck Driver Training
- Fire Department & Emergency Responders Training

Project Management

- Project Management and Planning
- Vehicle Deployment
- Infrastructure Development
  - Environmental Compliance (NEPA/CEQA)
  - Station RFPs and Construction Oversight
  - LNG Fuel Procurement
  - Maintenance Facility Modifications
- Training Coordination & Delivery
- Outreach & Marketing
- Grant Administration, Documentation and Reporting

GLADSTEIN, NEANDROSS & ASSOCIATES

Marketing & Outreach

- Promotional & Media Events (Ribbon Cutting, Truck Delivery, etc.)
- Press Releases Highlighting Milestones
- Outreach & Education for Local Fleet Operators, Public Officials, and Others
- Presentations at Conferences, Public Forums, etc.
- Articles and Info. in Partner Publications, Websites, Trade Journals, etc.
- Development of a Website to Promote the Project

Project Timeline

PROJECT MILESTONE		START DATE	DATE COMPLETE
PHASE I	T1: Contract Execution (SANBAG and Ryder)	August 4, 2010	August 11, 2010
PHASE II	T2: NG Truck Order / Deployment (70 units) T2: Year 2 NG Truck Order/Deployment (132 units)	October 11, 2010 January 1, 2011	December 31, 2010 September 30, 2011
	T3: Driver & Mechanic Training	September 31, 2010	January 28, 2011
	T4: LNG/LCNG Fuel Station Vendor Selection	October 28, 2010	December 15, 2010
	T5: LNG/LCNG Fuel Station Permitting, NEPA/CEQA	March 30, 2011	August 1, 2011
	T6: LNG/LCNG Station Construction - LNG/LCNG Station Equipment Ordered - Site Work / Civil Improvement - LNG/LCNG Station Equipment Delivered - LNG/LCNG Station Equipment Installed	March 15, 2011 May 30, 2011 June 1, 2011 July 1, 2011	May 30, 2011 September 1, 2011 September 31, 2011 January 31, 2012
PHASE III	T7: LNG/LCNG Fuel Station Ribbon Cutting	March 30, 2012	April 30, 2012
	T8: Operations, Management and Reporting	June 2012	December 22, 2014

Keys to Success

- GNA-SANBAG-CEC-DOE have a long history of success working together on similar projects (ICTC)
- The Ryder project is technically and economically feasible
- The Ryder project is a true public/private partnership
- There is constant communication among the team via weekly conference calls and email and phone in-between
- Ryder's status as 'best in the business' and their access to 1,200 customers will magnify the penetration and impact of the project
- 1,200 customers in SoCal: potential for NGV truck proliferation
- Ryder's purchasing power can influence OEM product development

Thank You !!!

For More Information

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