



**2011 APTA Bus and Paratransit Conference
Alternative Fuels Technology
May 23, 2011 – Memphis, TN**



About NGVi

- ❖ Established in 1989
- ❖ North America's leading provider of NGV and fuel station education, training and technical assistance.
- ❖ Conducts both public and in house training for fleets operating NGV's.
- ❖ Trained nearly 15,000 students in the U.S. and more than 500 internationally.



CNG Market Update Presentation Overview

- ❖ Legislative Activity
 - 2011 Natural Gas Act
 - NGV's Take the Hill
 - Energy and Power Subcommittee
- ❖ Supply Side Scramble
 - New discoveries of major reserves
 - Infrastructure Development
 - Role of LNG
- ❖ Vehicle/Engine Availability
- ❖ New Natural Gas Projects
 - Transit
 - Trucking



CNG Market Update

Legislative Activity

❖ 2011 Natural Gas Act HR-1380

- Introduced in the House on 4/6/11
- Proposed 5 year duration to jump start market
- Over 180 co-sponsors to the Bill
- Unprecedented bi-partisan support
- Includes expanded tax credits
 - ✓ Seller Excise Tax credit
 - ✓ Infrastructure
 - ✓ Vehicle purchases



Nat Gas Act – HR 1380

Tax Credits

❖ Seller Excise Tax Credit

- Currently in effect and will expire 12/31/2011
 - ✓ CNG - \$0.50 per GGE
 - ✓ LNG - \$0.50 per liquid gallon (\$0.85 DGE)

❖ Infrastructure

- Currently in effect and will expire 12/31/2011
 - ✓ 30% of Fuel Station cost up to \$30K
- 2011 Nat Gas Act
 - ✓ 50% of Fuel Station cost up to \$100K



Nat Gas Act – HR 1380

Tax Credits

❖ Vehicle Purchases

➤ Light Duty

- ✓ 80% of cost differential up to a max. of \$7.5K

➤ Heavy Duty

- ✓ 80% of cost differential up to a max of \$65K

❖ Vehicle OEMs

- Additional tax incentives for NGV producers



Legislative Activity

❖ NGV's Take the Hill

- Organized by NGV's for America (NGVA)
- April 13, 2011
- CNG vehicles (14) viewed by both Senators and Representatives

❖ Energy and Power Subcommittee

- On May 5, 2011, R. Kolodziej, President of NGVA testified on natural gas



Supply Side Scramble

- ❖ New discoveries of major gas reserves
 - Increasing domestic supply = lower prices
 - ✓ Natural Gas price decouples from oil
 - ✓ DOE forecasts price stability going forward
- Price currently approx. 50% of diesel
- New fuel suppliers enter the market
 - ✓ Encana
 - ✓ Chesapeake Energy
 - ✓ AGL Resources



Supply Side Scramble

❖ Infrastructure Development

- New private stations with public access
 - ✓ Required for Federally funded projects
 - ✓ Waste Management
 - ✓ UPS
- Interstate Corridors
 - ✓ Clean Energy & Flying “J”
 - ✓ I-15 Salt Lake to San Diego
 - ✓ I-75 Atlanta to Tampa
 - ✓ I-10 New Orleans to Jacksonville



Supply Side Scramble

❖ Role of Liquefied Natural Gas

- Port drayage to distribution centers
- Long haul goods transportation
- Infrastructure - Corridors
 - ✓ Limited pipeline access
 - ✓ Heavy truck traffic
- Availability of peak shaved product
- Imports from more stable nations
- Fuel quality is controllable



Vehicle/Engine Availability

❖ Big 3 Auto Manufacturers

➤ Ford

- ✓ E Series vans
- ✓ F Series pick-ups

➤ General Motors

- ✓ Chevy Express
- ✓ GMC Savana

➤ Chrysler

- ✓ Will sell NGV's in the U. S. (2017)



Vehicle/Engine Availability

❖ Transit

- Market size approx. 5,000 units per year
- Gillig offers CNG
- VPG offers CNG model MV-1

❖ Refuse

- Market size approx. 15,000 units per year
- All chassis manufacturers
- Most body builders



Vehicle/Engine Availability

❖ Over the Road Trucks

- Market size approx. 250K units per year
- All chassis manufacturers
- Many LNG models available
- Navistar now offers CNG

Prices will be driven down due to competition and economies of scale.



Vehicle/Engine Availability

❖ Heavy duty engines

➤ Cummins

- ✓ Mature & reliable ISLG 8.9L
- ✓ Performance test of new 11.9L
- ✓ Potential for new “B” type 5.9L

➤ Emissions Solutions (ESI)

- ✓ EPA certification for 7.6L Phoenix
- ✓ Based on the International DT-466
- ✓ In production at Navistar



Vehicle/Engine Availability

❖ Westport Innovations

- Model GX – 15L dual fuel HPDI diesel pilot

❖ Doosan

- Model GK12-11L Repower only (SCR & DPF)

❖ Clean Air Power

- Testing in Navistar Class 8 truck

For more information on engine availability
visit NGVAmerica @ www.ngvc.org



New Natural Gas Projects

❖ Transit

- Conversion complete
 - ✓ LAMTA retires last diesel vehicle
- Retiring LNG Nova Buses
 - ✓ Dallas orders 450+ CNG
- Taking a break from hybrids
 - ✓ NYC
 - ✓ WMATA
- Phoenix bid more LNG



New Natural Gas Projects

❖ Trucking

➤ Ryder Truck Leasing

- ✓ Offers NG at 3 leasing centers in California
- ✓ Freightliner M2 with ISLG – 182 units
- ✓ Peterbilt 386 Westport Innovations LNG – 20 units

➤ UPS

- ✓ Kenworth – Westport Innovations LNG – 48 units



Thank you for your attention

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