



North America's leader in clean transportation



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P & O Nedloyd - LNG Yard Hostler Program

- ▶ Deploying 37 LNG Yard Hostlers
 - Kalmar – Cummins Westport C Gas+
- ▶ Purchasing a LNG station designed, built, operated, and maintained by Clean Energy
- ▶ Contracted with Clean Energy for LNG supply
 - Fixed natural gas commodity pricing
- ▶ Clean Energy submitted grant applications for Carl Moyer and Port of Los Angeles grant funding

Available NG Engines



John Deere

8.1 Liter

250-280 hp

1.2 NO_x+NMHC

Cummins Westport

8.3 Liter

250-280 hp

1.8 NO_x+NMHC

0.01 PM

8.9 Liter

320 hp

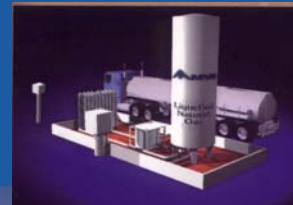
1.4 NO_x+NMHC

0.01 PM

Proven in Transit Buses, Heavy-Duty Trucks, and Refuse Haulers.

LNG Station Development

- ▶ Third party fuel providers design, build, operate and maintain NG fueling station
- ▶ Provide own capital for the construction of the fueling station
 - Contingent upon long term LNG supply agreement
- ▶ Customer has option to purchase or lease a LNG station



LNG Infrastructure

- ▶ Fuel is dispensed at 40+ gallons/minute
 - Transparent to diesel
 - Low power requirements compared to CNG
- ▶ LNG is stored at –260 F
 - Use insulated tanks – limited shelf life
 - Typical 15,000 gallon vessels
 - Vertical or horizontal
 - With only low pressure pipeline gas, LNG can be vaporized to CNG (LCNG)
- ▶ LNG is not Odorized
 - Methane detectors at fueling station and bus required



LNG Sources

- ▶ California LNG Plant
 - 80,000 gallons per day
 - Capable of expanding to 240,000 gpd
- ▶ Pickens LNG Plant
 - Willis, Texas
 - 80,000 gallons per day
 - 1,000,000 gallons of storage
- ▶ Wyoming, Colorado, and Oregon LNG Plants
- ▶ CE has fleet of 28 dedicated LNG Trailers- going to 40 by June 2006



Clean Energy's Pickens LNG Liquefaction Plant

LNG Pricing

- ▶ Retail pricing is less than diesel
 - Federal tax credit included in price
- ▶ Lock in multi- year contracts (1 to 5 years)
- ▶ Fixed natural gas commodity pricing
 - BP Capital
 - NYMEX contracts
 - High Collar Provision

SunLine Transit LNG & CNG Stations



Incentives

- ▶ Infrastructure funding
 - Port of Los Angeles
- ▶ Vehicle funding
 - Carl Moyer funding
 - Port of Los Angeles
 - Tax incentive (if licensed for on-road?)
- ▶ Fuel pricing
 - Increasing price for oil
 - Cost of ULSD
 - Tax credit