Liquefied Natural Gas (LNG) Production, Storage & Transport In New York State

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An LNG Primer...

- LNG is natural gas cooled to approx. -260°F
- LNG is stored & transported in insulated double-walled tanks at low pressure
- LNG allows for the storage of large quantities of natural gas in smaller spaces (600/1 ration)
- LNG is transported by ship, truck, train and barge throughout the U.S.
- LNG has a wide range of uses and qualifies as a clean "alternative fuel" under 1992 Energy Policy Act
- NY is the only state without a law or regulations on the siting of any new LNG facilities or the intrastate transport of LNG
- The LNG Moratorium continues to this day in NYC

LNG Moratorium in NY State

A Brief History...

<u>1973</u>

 Accident involving tank repair crew occurs at empty LNG Staten Site storage site. 37 people killed.

<u>1976</u>

- Dept. of Environmental Conservation (DEC), given oversight responsibilities for LNG in NY State, charged with providing revised regulations for facility siting and intrastate LNG transport and storage under Environmental Conservation Law Title 17 Section 23
- New DEC regulations never promulgated

1978

- New York State Legislature enacts LNG moratorium throughout state
- Moratorium was intended to continue until "accurate and reliable information" concerning the safe transportation and storage of LNG became available

LNG Moratorium in NY State

A Brief History (continued)...

<u>1978</u>

- 3 existing NY State LNG facilities "grandfathered" under moratorium, including:
 - ConEd Astoria Plant
 - National Grid Green Point Plant
 - National Grid Holtsville Plant
- All intrastate LNG activity in NY State halted by moratorium, including construction of new storage and production facilities as well as intrastate LNG transport and designation of transport routes routes.
 - Note: Despite the moratorium, bulk interstate transport of LNG through NY State continued under preemption doctrine. Federal regulations also govern vehicle specifications and on-board LNG fuel supply requirements.

LNG Moratorium in NY State

A Brief History (continued)... Since 1999

- NYSERDA study, completed in coordination with various state agencies, utilities and the private sector, evaluated all issues related to use of LNG in New York and recommended moratorium be discontinued
- Moratorium for all areas of New York State other than New York City allowed to lapse in 1999.
 However, no implementing regulations for LNG were promulgated.
- The LNG moratorium continues in the 5 Boroughs of New York City to this day. The legislature has extended it every two years since 1999.

Current LNG Legislative Efforts

- Efforts to promulgate regulations or pass new legislation to allow for the expanded use of LNG in NY State have been ongoing since January of 2000
- Our current focus is on promulgating new regulations for Title 17 Section 23 for use of LNG in New York State. If approved, such regulations will allow all LNG projects and transport of LNG within New York State. Such projects may include:
 - Transportation
 - Marine
 - Heavy-Duty Vehicles
 - Light-Duty Vehicles
 - Rail
 - Utility Line Fortification & Repair Activities
 - Utility Peaking –Design Day Limitations
 - Virtual Pipelines / Remote Distribution Systems
 - Small-Scale Natural Gas Liquefaction
 - · Pipelines/Stranded Wells
 - Landfill/Sanitation Facilities

Anticipated Timeline for LNG Usage in New York

- Approval of new DEC regulations for Title 17 Section 23 regarding LNG facility construction and transport anticipated in 12 to 18 months.
- Participating state agencies include:
 - Office of the Governor
 - Dept. of Environmental Conservation
 - NYSERDA
 - Dept. Of State/Office of the Fire Marshall
 - Dept. of Transportation
 - New York Public Service Commission

LNG Operational Benefits

- Air quality improvements through substantial emission reductions (Sulfur Dioxide, Nitrogen Oxides, Non-Methane Organic Compounds, Particulates, and Carbon Monoxide)
- Reductions in fueling & operational costs for transportation of \$1-3 dollars per diesel equivalent gallon depending on source of LNG fuel supply.
- Increased energy independence and security
- Domestic job creation and technology innovation
- Cost-effective bridge to a hydrogen economy



for their persistent and consistent efforts to bring LNG back to New York.



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