

DEEPWATER PORT LNG TO FUEL ELECTRIC GENERATION

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Conducting Public Utility Business in Uncertain Times
SNL EXNET and Bruder, Gentile & Marcoux, L.L.P.
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Deepwater Port (DWP) LNG Summary

- DWPs attract world's natural gas supplies to U.S. as supercooled, regasified LNG
- Congressional policy promotes DWPs
- DWP marketing, economics, & licensing many-faceted

LNG outlook promising given coal, nuclear, & other electric generation alternatives. 2009 LNG imports (1.7 Bcf/d) to climb 147% by 2014 (4.2 Bcf/d).

Inside FERC, Jan. 19, 2009, pp. 13-14.



DWPs Attract World's Gas Supplies To U.S. As LNG

- LNG is natural gas cooled to -260°F
 - ✓ Liquid is $1/600^{\text{th}}$ of gaseous volume
 - ✓ Imported from Pacific & Atlantic Basin sources
- Special vessels transport & re-gasify LNG
 - ✓ Ships carrying LNG to Port Dolphin Energy LLC will moor at DWP submerged buoys & convert LNG from liquid to gas with onboard regasification plants. Then gas will be pipelined to shore



Congress Promotes DWPs

- DWP Act, amended in 2002 to include gas storage, transportation, & handling, now declares policy (33 U.S.C. § 1501 (a)) to:
 - ✓ Authorize/regulate DWP location, ownership, construction, operations
 - ✓ Protect marine/coastal environment or minimize any adverse impact
 - ✓ Protect U.S. & adjacent coastal State interests
 - ✓ Protect States' & communities' rights/responsibilities to regulate growth, determine land use, & otherwise protect environment
 - ✓ Promote DWP construction/operation as safe & effective means to import gas into U.S.





Name	Location	Status
1 Gulf Gateway Energy Bridge	Gulf of Mexico, LA	Existing
2 Northeast Gateway	Gloucester, MA	Existing
3 Port Pelican	Fresh Water City, LA	Approved
4 Main Pass**	Gulf of Mexico, LA	Approved
5 Neptune LNG	Gloucester, MA	Approved
6 Gulf Landing	Pascagoula, MS	Approved
7 Bienville Offshore Energy Terminal	Mobile, AL	Proposed
8 Clearwater Port	Oxnard, CA	Proposed
9 Oceansway Secure Energy	Los Angeles, CA	Proposed
10 Calypso LNG	Port Everglades, FL	Proposed
11 Port Dolphin	Tampa, FL	Proposed
12 Safe Harbor Energy	Long Island, NY	Proposed

-  Existing
-  Approved
-  Proposed

**License is pending

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Deepwater Port Licensing Program, Maritime Administration, U.S. Dept of Transportation 2008 booklet, page 17

Complex DWP Licensing

- DOT's Maritime Administration (MARAD) licenses DWPs
 - ✓ Determines if applicant financial (construction & operational, decommissioning guarantees) & citizenship requirements are met
 - ✓ Determines if DWP construction/operation is consistent with national security, energy sufficiency, environmental quality (33 U.S.C. § 1503(c)(3))
 - ✓ Issues with USCG assistance a Record of Decision outlining DOT Secretary's decision & defining scope of license



Maritime Administration

Complex DWP Licensing

- USCG works closely with MARAD
 - ✓ Considers license's environmental, marine navigation, safety, & security aspects
 - ✓ Leads Federal agency environmental review, including for onshore, FERC-regulated pipeline
 - ✓ Requires DWP operations manual, including security plan
 - ✓ Checks Oil Pollution Act of 1990 financial responsibility



Complex DWP Licensing

➤ MARAD & USCG must consult/coordinate participation with other Federal agencies, including:

- ✓ FERC certifies pipeline on land from high water mark
- ✓ EPA protects against air (Clean Air Act) & water (Clean Water Act) pollution; issues Prevention of Significant Deterioration permits & National Pollutant Discharge Elimination System permits
- ✓ NOAA's National Marine Fisheries Service & U.S. Fish & Wildlife Service protect benthic species



Complex DWP Licensing

- ✓ USACE issues Rivers & Harbors Act § 10, CW Act § 404 permits for discharged dredge/fill material in U.S. waters
- ✓ MMS issues Right of Way permits
- ✓ To promote U.S. security, DOT Secretary shall give top priority to processing licenses for facilities supplied with LNG by U.S. flag vessels (33 U.S.C. § 1503 (i))



US Army Corps
of Engineers®



Complex DWP Licensing

- MARAD & USCG consult/coordinate with State agencies & general public throughout DWP license review process:
 - ✓ MARAD website lists participating State agencies from AL, CA, FL, LA, MA, MS, NJ, TX
 - ✓ DWP applicant must demonstrate with necessary data & information consistency with adjacent coastal State's Coastal Zone Management Plan (per 1972 Coastal Zone Management Act) & State must concur with applicant's consistency certification



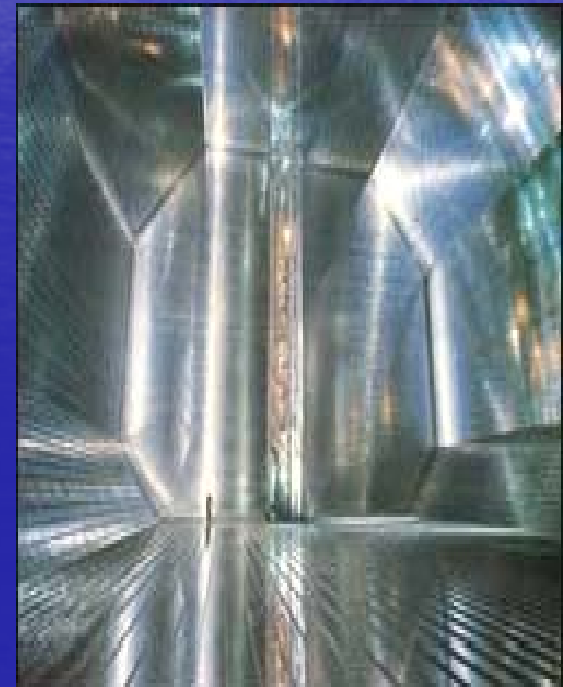
Complex DWP Licensing

✓ Adjacent coastal State Governor must approve, or be presumed to approve, application before MARAD issues license (33 U.S.C. § 1503 (c)(8)). Calypso LNG, LLC ceased MARAD/USCG license work 25 Feb 09

✓ If State objects, no authorization unless applicant appeals to Secretary of Commerce & Secretary overrides objection

➤ Complex DWP Marketing & Economics

✓ Hoegh LNG views on incentives & challenges to dedicate LNG to U.S. markets



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