LNG WRAP-UP

NARUC LNG GROUP

Tuesday, March 01, 2016

The LNG Group sponsored a presentation by Bill Allen, Manager, Commercial Activities at Dominion. The link to the presentation will be posted in next month's issue.

Previous issues of the Wrap-Up are found here: http://www.naruc.org/our-programs/resources/Ing-newsletters/ (the link shown in previous issues is **not** valid anymore)

DOMESTIC NEWS (NORTH AMERICA)

FERC-Related (2016)

(2/1) FERC issued a Notice of Revised Schedule for the Environmental Review of the Oregon LNG terminal , extending the release date of the EIS from 2/12/2016 to 6/3/2016

http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14133267

(2/5) FERC released its Environmental Assessment for the proposed Elba Island LNG Export terminal http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14139095

(2/12) FERC releases its EA report on Cameron LNG, LLC's proposal to construct two liquefaction trains (Trains 4 and 5).

http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14145208

(2/17) Cheniere's Corpus Christi Liquefaction LLC filed its January 2016 status report indicating its intent to file an application to proceed with its Stage 3 expansion project.

http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14147668

(2/17) FERC issues a project update report for the Port Arthur Liquefaction and pipeline projects in Texas and Louisiana.

http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14147459

(2/18) FERC issues a project update report for Eagle LNG's proposed liquefaction and export facility in Jacksonville, FL.

http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14148767

(2/18) Dominion's Cove Point filed its monthly status report for January 2016.

http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14149737

(2/22) Cheniere's Corpus Christi Liquefaction submitted its monthly report for January 2016.

http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14151204

(2/24) TransCanada Offshore LLC filed an application for abandonment by sale to Avocet LNG, LLC certain facilities located off- and onshore Louisiana. Avocet will develop the Deepwater LNG Port in the same location. http://elibrary.ferc.gov/idmws/common/opennat.asp?filelD=14153928

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<u>Panama City, Panama</u> (2/3) According to Jorge Quijano, head of the Panama Canal Authority, the expansion project will be ready by the end of June 2016. http://www.reuters.com/article/us-panama-canalidUSKCNOVD07T

Washington, D.C. (2/5) The United States Department of Energy issued an order granting, Bear Head LNG, authority to export LNG produced from gas imported from the United States to NON-FTA nations. The LNG will be exported from the company's proposed liquefaction and LNG export terminal in Nova Scotia, Canada.

http://energy.gov/sites/prod/files/2016/02/f29/ord377 0.pdf

Washington, D.C. (2/5) The United States Department of Energy issued an order granting, Pieridae Energy, authority to export LNG produced from gas imported from the United States to NON-FTA nations. The LNG will be exported from the company's proposed liquefaction and LNG export terminal in Nova Scotia, Canada.

http://energy.gov/sites/prod/files/2016/02/f29/ord376 8.pdf

Washington, D.C. (2/8) The United States Department of Energy issued an order granting, ConocoPhillips LNG, a 2-year license to export LNG from the Kenai export facility to FTA & NON-FTA nations.

http://energy.gov/sites/prod/files/2016/02/f29/ord378 4.pdf

Washington, D.C. (2/8) Venture Global LNG and Shell North America have entered into a 20 year agreement under which Shell will purchase 1 MTPA of LNG from Venture's Calcasieu Pass proposed export facility. http://venturegloballng.com/press/venture-global-calcasieu-pass-and-shell-lng-north-america-execute-twenty-year-lng-sales-and-purchase-agreement/#.VsyLPfkrJph

Washington, D.C. (2/8) President Barak Obama signs into law H.R.4188, The Coast Guard Authorizations Act. The bill provides \$9.1 billion to the United States Coast Guard to, among others, develop guidelines for the transport of more LNG on U.S.-flagged vessels. https://www.congress.gov/bill/114th-congress/house-bill/4188/text

Ottawa, ON (2/10) The Canadian Environmental Assessment Agency issued its Draft Environmental Assessment Report on the Pacific Northwest LNG project. https://www.ceaa-acee.gc.ca/050/documents/p80032/104785E.pdf

<u>Tulsa, OK</u> (2/10) Williams Partners executed two multiyear contracts to provide natural gas to the Corpus Christi and Freeport liquefaction facilities. http://investor.williams.com/press-release/williams/williams-partners-executes-agreements-serve-two-gulf-coast-lng-export-facilit

Hilo, HI (2/10) The Hawaii Island Energy Cooperative issued its "Alternative Power Generation Plan" proposing to generate electricity based on renewables "... in contrast to pursuing the questionable and controversial LNG path" http://www.hiec.coop/docs_and_pdfs/HIEC-APGP-2-9-16.pdf

Atlanta, GA (2/10) UPS has expanded its agreement with Clean Energy Fuels to use up to 500,000 gallon equivalents of renewable LNG annually in Texas. https://www.pressroom.ups.com/pressroom/ContentDetailsViewer.page?ConceptType=PressReleases&id=1455110888923-689

Temecula, CA (2/11) Southern California Telephone and Energy's SCT&ELNG subsidiary has entered into an MOU with an unnamed Asian electricity provider for a 1MTPA to be provided from the proposed Monkey Island facility in Cameron Parish.

http://finance.yahoo.com/news/sct-e-lng-signs-third-130000152.html

Houston, TX (2/18) Former Cheniere CEO, Charif Souki, resigned from the company's Board of Directors. http://www.bloomberg.com/news/articles/2016-02-18/ousted-cheniere-ceo-souki-resigns-from-gas-company-s-board

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<u>Houston, TX</u> (2/21) After a delay, the first LNG tanker docked at Cheniere's Sabine Pass terminal in Louisiana. http://www.maritime-executive.com/article/first-lng-tanker-docked-at-sabine-pass

<u>Houston, TX</u> (2/23) Former Cheniere CEO Charif Souki and Martin Houston, former BG COO, join forces to start Tellurian Investments, a new LNG export company. http://tellurianinvestments.com/

Houston, TX (2/24) Cheniere announced that the departure of Asia Vision is imminent. The LNG cargo is destined for Brazil. According to sources Petroleo Brasileiro (PetroBras) is the intended recipient. http://phx.corporate-ir.net/frame.zhtml?c=101667&p=irol-

newsArticle&ID=2142815

Chicago, IL (2/24) 163 is the number of LNG tankers

that it would take to wipe out the US gas glut.

http://www.bloomberg.com/news/articles/2016-0224/how-many-gas-exports-are-needed-to-wipe-out-the-glut-163-ships

<u>Calgary, AB</u> (2/25) AltaGas announced that the DC LNG Consortium halts plan to develop the Douglas Channel LNG project in British Columbia:

http://altagas.mwnewsroom.com/pressreleases/altagas-ltd-reports-2015-fourth-quarter-andyear-end-results-tsx-ala-201602251044437001

San Diego, CA (2/25) Sempra Energy and Woodside Energy (USA) Inc., a subsidiary of Australia's Woodside Petroleum, entered into a Project Development Agreement to advance the development of Port Arthur LNG in Port Arthur, TX.

http://sempra.mediaroom.com/index.php?s=19080&ite m=137125

Toronto, ON (2/25) In an interview on BNN, Fatih Birol, Executive Director of the International Energy Agency, claims that "the world needs Canadian energy" http://www.bnn.ca/News/2016/2/25/The-world-needs-Canadian-energy-IEA-chief-sees-room-for-Canadas-LNG-ambitions-.aspx

<u>Houston, TX</u> (2/26) According to her comments at HIS CERAWeek, Meg Gentle, Cheniere's VP of Marketing, is bullish on the global LNG market.

http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14153928

INTERNATIONAL NEWS

<u>Tel-Aviv, Israel</u> (1/31) Noble Energy and its partners have entered into an 18-year/6 Billion cubic meters of gas agreement with Edeltech Group, an electricity producer.

http://www.bloomberg.com/news/articles/2016-01-31/leviathan-partners-sign-1-3-billion-gas-deal-withedeltech

<u>Perth, Australia</u> (2/1) In response to the new market realities, Chevron is forced to lower the price for the Gorgon-produced LNG.

http://www.reuters.com/article/chevron-gorgon-lng-idUSL8N15A4O3

<u>Paris, France</u> (2/2) Total signs a 15-year agreement to supply up to 1 MTPA of LNG to Indonesia's Petramina beginning in 2020.

http://www.total.com/en/media/news/pressreleases/total-signs-long-term-agreements-supply-lngstate-owned-indonesian-company-pertamina

London, United Kingdom (2/4) According to Gazprom Deputy Chairman, Gazprom is not planning an LNG price war. http://www.nasdaq.com/article/gazprom-not-planning-lng-price-war-20160204-01018

Paris, France (2/4) Total signs a 10-year .5 MTPA agreement to supply LNG to China's ENN. http://www.total.com/en/media/news/press-releases/total-signs-heads-agreement-supply-lng-enn-china

London, United Kingdom (2/5) Despite claims of an abundance of commodity, compressor problems at Sakhalin-2 have a positive effect on prices. http://af.reuters.com/article/commoditiesNews/idAFL8 N15K46N?sp=true

<u>Shannon, Ireland</u> (2/7) According to Irish media, Hess sold its Shannon LNG operation.

http://www.independent.ie/business/irish/us-oil-giant-hess-sells-troubled-irish-gas-terminal-shannon-lng-34429271.html

<u>Islamabad, Pakistan</u> (2/8) Pakistan will enter into a 15-year, 3.5 MTPA LNG agreement with Qatar. http://af.reuters.com/article/egyptNews/idAFL8N15N2

<u>Tokyo, Japan</u> (2/9) Japan's METI reports that the average LNG spot price for January 2016 fell \$.30 to \$7.10/MMBtu from December 2015.

http://www.meti.go.jp/english/statistics/sho/slng/result/pdf/201601-e.pdf

<u>Helsinki, Finland</u> (2/10) Wärtsilä will provide dual-fuel (LNG & Diesel) engines for 16 gas carriers being built for Japanese owners.

http://www.wartsila.com/media/news/10-02-2016-wartsila-fuel-flexibility-supporting-japans-gas-age-shipping-sector

<u>Vilnius, Lithuania</u> (2/10) Lithuania's Minister of Energy suggests that the competition introduced by the country's LNG terminal has led to a reduction of natural gas prices for Lithuania. http://www.baltic-course.com/eng/energy/?doc=116562

Tokyo, Japan (2/10) Jera Co., a joint venture set-up by Tokyo Electric and Chubu Electric Power, projects that its LNG contract volumes will be between 30 and 40 MPTA in 2030 down from 40 MPTA in 2016 http://www.jera.co.jp/english/information/pdf/201602 10 01.pdf

Islamabad, Pakistan (2/11) The Pakistani government intends to increase its LNG purchases from Qatar. http://www.thenews.com.pk/latest/97576-Five-more-LNG-import-pacts-to-be-signed-with-Qatar-Shahid-Khaqan

<u>Lagos, Nigeria</u> (2/11) A German delegation visits Nigeria to discuss, among others, the role Nigerian LNG can play in Germany's energy mix.

http://tribuneonlineng.com/germany-signals-interest-in-nigeria-lng

Perth, Australia (2/12) Woodside strengthens its portfolio with a new gas discovery off the western coast of Myanmar. http://www.woodside.com.au/Investors-Media/announcements/Documents/12.02.2016%20Woodside%20Makes%20Second%20Gas%20Discovery%20in%20Myanmar.pdf

Jerusalem, Israel (2/14) Israeli P.M. appears before the country's Supreme Court arguing the importance of developing the Leviathan field, offshore Israel. http://www.reuters.com/article/us-israel-natgas-netanyahu-idUSKCNOVNORX

<u>Aarhus, Denmark</u> (2/15) BioMar, one the largest suppliers to the aquaculture industry has ordered a new ship that is "... cost-effective and environmentally friendly [with] LNG-powered propulsion engines ..." http://www.biomar.com/Global/global%20press%20releases/2016/BioMars%20new%20eco-friendly%20feed%20carrier.pdf

Oslo, Norway (2/16) Höegh LNG announced that in response to the changing market, it is focusing its activities on Floating Storage and Regasification Units. http://cws.huginonline.com/Pages/NewsArticle.aspx?artld=http://cws.huginonline.com/H/143849/PR/201602/1986238.xml

Tokyo, Japan (2/18) Japan's Ministry of Finance reports that LNG imports for January 2016 fell by 14.1% (page 4 of report)

http://www.customs.go.jp/toukei/shinbun/tradest_e/2016/2016014e.pdf

Perth, Australia (2/19) Woodside Petroleum is likely to postpone its final investment decision on the Browse field FLNG, to 2017. (The Browse Basin is located 425 km/265 m north of Australia).

http://fairplay.ihs.com/commerce/article/4262606/investment-decision-on-browse-flng-likely-to-be-delayed?utm_source=email&utm_medium=content&utm_campaign=roundup&mgs1=75e5mgrbRC



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<u>Busan, Korea</u> (2/22) South Korea's Kangam Shipyard launched a small-scale Floating regasification Unit to be deployed Bali, Indonesia.

http://www.lngworldnews.com/south-korea-small-scale-lng-fru-launched/









<u>Doha, Qatar</u> (2/23) Qatargas, Moller-Maersk and Shell have entered into an agreement to explore opportunities in the LNG as a marine fuel area. <u>www.qatargas.com/English/MediaCenter/news/Pages/LolwithMaerskOil2016.aspx</u>

<u>Vilnius, Lithuania</u> (2/23) In an effort to maximize the benefits from using LNG, Lithuania's government seeks financial support from the EU in order purchase the Höegh FSRU <u>Independence</u>. http://www.baltic-course.com/eng/energy/?doc=117143

<u>Madrid, Spain</u> (2/24) Spain's Endesa, a company with a diverse portfolio in electricity and natural gas, inaugurates its first fueling station in Madrid, providing both CNG and LNG.

http://www.endesa.com/EN/SALADEPRENSA/NOTICIAS/Endesa-inaugurates-its-first-natural-gas-vehicle-plant-in-Madrid#.VtQbfjcN1DA.twitter

Brussels, Belgium (2/24) According to U.S. ambassador Richard Morningstar, Gazprom's Nord Stream 2 will undermine the European Union's LNG strategy. http://www.euractiv.com/section/energy/news/nord-stream-2-will-kill-eus-lng-strategy-warns-us-ambassador/

<u>Tehran, Iran</u> (2/25) Iranian media reports that Greece and Iran are in discussions regarding the purchase of Iranian LNG – once sanctions are lifted. http://www.presstv.ir/Detail/2016/02/25/452329/Iran-Greece-LNG-Panos-Skourletis

<u>Tokyo, Japan</u> (2/25) Jera Co. is seeking to cooperate with Korea Gas Corp. and China National Offshore Oil Corp. on LNG investments and procurement. http://www.bloomberg.com/news/articles/2016-02-25/biggest-lng-buyers-seek-alliance-to-boost-bargaining-power

Sydney, Australia (2/28) As the LNG industry moves from development of the facilities to production, the employment opportunities for LNG engineers require different skills. http://www.abc.net.au/news/2016-02-29/engineers-urged-to-up-skill-as-lng-industry-matures/7207802

Analysis-Opinion-OTHER

Washington, D.C. (January 2016). "Surging Liquefied Natural Gas Trade; How US Exports Will Benefit European and Global Gas Supply Diversity, Competition, and Security" A report prepared by Bud Coote for the Eurasian energy Futures initiative.

http://www.atlanticcouncil.org/images/publications/Surging LNG Trade.pdf

Albuquerque, N.M. (2/7) "LNG exports would boost NM economy." Opinion by Steve Henke, President of the New Mexico Oil & Gas Association in the Albuquerque Journal.

http://www.abqjournal.com/719674/opinion/lng-exports-would-boost-nm-economy.html

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Brussels, Belgium (2/10) "Liquefied Natural Gas and gas storage will boost EU's energy security" unsigned opinion on the expressed expectation that LNG imports will help the EU countries significantly reduce their reliance on Russian natural gas in the New Europe online newspaper. http://neurope.eu/wires/liquefiednatural-gas-and-gas-storage-will-boost-eus-energy-security/

<u>Singapore</u> (2/12) "Prospects for Singapore to be LNG hub 'still favourable'" opinion on the newly launched Singapore Exchange by Jacqueline Woo of <u>Asia One</u>. http://business.asiaone.com/news/prospects-singapore-be-lng-hub-still-favourable

Rome, Italy (2/17) "LNG industry shared across Europe" by Nicolo Sartori. The author discusses how the increase in LNG imports in the European Union, is causing Brussels to work towards developing a common strategy.

http://www.abo.net/oilportal/topic/view.do?contentId =2573459

Philadelphia, PA (2/22) "Boost to local manufacturing" by Ned Rauch-Mannino who discusses how LNG exports can provide economic benefits to Philadelphia. http://mobile.philly.com/beta?wss=/philly/opinion&id=369600751

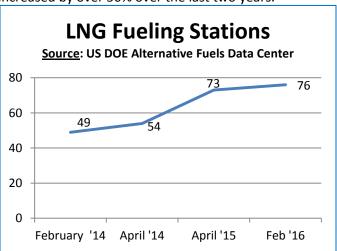
Washington, D.C. (2/23) "Exporting liquefied natural gas: A golden opportunity we must seize" by Charlie Riedi, The Hill. http://thehill.com/blogs/congress-blog/energy-environment/270315-exporting-liquefied-natural-gas-a-golden-opportunity

<u>Austin, TX</u> (2/23) "Supporting LNG exports, the Texas way" by Texas State Senator Paul Bettencourt and State Rep. Gene Wu.

http://www.yourhoustonnews.com/memorial/opinion/supporting-lng-exports-the-texas-way/article_5b8dde41-b8f1-59f4-8fd0-aec94c55a700.html

<u>Houston, TX</u> (2/25) Cheniere Energy's Sabine Pass first LNG cargo loading (video on youtube). https://youtu.be/9 zRBrQp06E Launceston, Australia (2/29) "LNG needs new pricing, rules to realize its golden age" by Clyde Russell at Reuters http://www.reuters.com/article/us-column-russell-lng-asia-idUSKCN0W2174

<u>Washington, D.C.</u> (2/29) According to data from the US DOE, the number of public LNG fueling stations has increased by over 50% over the last two years.



Source: Alternative Fuels Data Center, USDOE

Links to some entities mentioned in this issue	
http://venturegloballng.com/	
http://www.hoeghlng.com/	
http://www.woodside.com.au	
http://williams.com	
http://www.pancanal.com/eng/	
http://www.chevron.com/projects/gorgon	
http://tellurianinvestments.com	
http://www.petrobras.com	
http://www.sempra.com/	
http://www.endesa.com/en/home	
http://www.sctelng.com/	