LNG WRAP-UP

NARUC LNG GROUP

Monday, February 01, 2016

The LNG Group sponsored presentation will take place on Sunday February 14, 2016 at 2:00 pm, during the Gas Staff Subcommittee meeting. The featured guest is Bill Allen, Manager, Commercial Activities at Dominion.

For a complete listing of the Gas-related panels and meetings during the 2016 NARUC Winter Meetings click here

DOMESTIC NEWS (NORTH AMERICA)

FERC-Related (2016)

(12/29/15) FERC issued a notice of scoping for the proposed Delfin LNG project and a request for comments on the environmental issues associated with the project.

http://elibrary.ferc.gov/idmws/common/opennat.asp?fi leID=14083898

(1/4) Eagle LNG Partners Jacksonville LLC filed its monthly status report, on the developments of the proposed LNG facility in Jacksonville, FL. The report covers activities for December 2015.

http://elibrary.ferc.gov/idmws/common/opennat.asp?fi leID=14088525

(1/11) FERC issued a notice of its intent to release the Environmental Assessment for the Cameron LNG Terminal Expansion Project on 2/12/16.

http://elibrary.ferc.gov/idmws/common/opennat.asp?fi leID=14094961

(1/22) According to the Monthly Construction Report submitted to the FERC on the Sabine Pass liquefaction facility, Cheniere states that the substantial completion dates for Trains 1 and 2, are delayed by 2 months (to May and August 2016).

http://elibrary.ferc.gov/idmws/common/opennat.asp?fi leID=14125421 (1/29) The Center for Liquefied Natural Gas filed comments with the FERC on the proposal to revise the 2002 <u>Guidance Manual for Environmental Report</u> <u>Preparation (Guidance Manual)</u>. <u>FERC Notice of Availability</u>:

http://www.ferc.gov/industries/gas/enviro/guidelines/ AD16-3.pdf

<u>CLNG Comments:</u> <u>http://lnginitiative.org/wp-</u> <u>content/uploads/2016/01/5Comments-NGSA-CLNG-</u> <u>Comments-on-FERC-Draft-Guidance-Manual.pdf</u>

Vancouver, B.C. (1/5) Shell-led LNG Canada received an LNG Facility Permit from the British Columbia Oil & Gas Commission. The permit is considered a "key permit" for the construction and operation of the proposed LNG Canada project. <u>http://lngcanada.ca/media-items/lng-canada-receives-bc-oil-and-gas-commission-permit</u>

Calgary, AB (1/7) Canada's National Energy Board (NEB) issued its first 40-year LNG export license to LNG Canada Development Inc., a joint venture led by Shell Canada. The license still has to be approved by the Prime Minister and his Cabinet. <u>https://docs.neb-</u> one.gc.ca/ll-

eng/llisapi.dll/fetch/2000/90466/94153/552726/83477 3/2797784/2905622/A75001-1 Letter Decision -LNG Canada Development Inc. -A4X3I4.pdf?nodeid=2904846&vernum=-2

<u>New York, NY</u> (1/12) As US LNG exports begin, tug boats that had been idling waiting for LNG imports, are finding a new purpose. <u>https://gcaptain.com/2016/01/12/tugboats-left-</u> useless-find-work-in-u-s-Ing-exports/#.Vqex0 krJpi

Houston, TX (1/14) Cheniere Energy announced that it expects its first LNG cargo to ship in February or March. http://phx.corporateir.net/phoenix.zhtml?c=101667&p=irolnewsArticle Print&ID=2129209

<u>Calgary, AB</u> (1/14) Canada's National Energy Board issued two 25-year LNG export licenses. <u>New Times Energy Ltd.</u> <u>AltaGas DCLNG General Partner Inc</u>

Honolulu, HI (1/19) According to a Hawaii Gascommissioned study, electric utility customers on the island of Oahu could have saved \$132 million if LNG were available.

http://www.bizjournals.com/pacific/news/2016/01/19/ oahu-customers-could-have-saved-132m-on-fuelcosts.html

Washington, D.C. (1/19) In its comments on the Draft Guidance Manual for Environmental Report Preparation for [LNG] Applications Filed Under the Natural Gas Act, the EPA recommends, among others that applicants provide information regarding the potential for increased natural gas production and address Greenhouse Gas emissions. <u>http://elibrary-</u> backup.ferc.gov/idmws/common/opennat.asp?fileID=1 4122976

Kingston, Jamaica (1/21) The Jamaica Public Service Company announced that it has begun the process to convert the Bogue power plant in Montego Bay to also operate on LNG and its current fuel – automotive diesel oil. http://www.myipsco.com/news/jps-commencesconversion-works-at-bogue-power-plant/ Hamilton, Bermuda (1/22) Golar LNG and Houston, TXbased Schlumberger have entered into an agreement for the development of a wide range of Greenfield Brownfield and stranded gas reserves with the ultimate goal of delivering "low-cost LNG production solutions." http://www.golarlng.com/index.php?name=seksjon/Sto ck_Exchange_Releases/Press_Releases.html&pressrelea se=1980737.html

Jacksonville, FL (1/22) Tote Maritime has taken delivery of the second LNG-fueled container ship from General Dynamics NASSCO. <u>http://www.nassco.com/newscenter/news-releases/2016/012216.html</u>

Ottawa, ON (1/25) Not all transport companies achieve savings by converting their truck fleet to LNG. After two years and 1.5 million km (about 1 million miles) Winnipeg-based Bison Transport, sold its LNG fueled trucks to Vedder Transport based in British Columbia. <u>http://www.cbc.ca/news/business/lng-diesel-bisonshell-cnrail-2016-1.3414257</u>

<u>Houston, TX</u> (1/25) Cheniere announced that it is seeking to refinance approximately \$2.6 billion of debt associated with the Sabine Pass terminal. http://phx.corporate-

ir.net/frame.zhtml?c=101667&p=irolnewsArticle&ID=2131833

Miami, FL (1/27) Royal Dutch Shell and Ryder Trucks have entered into an agreement for 15 LNG-fueled trucks to support Shell's oil & gas logistics operations in Lafayette, LA and Houston, TX. http://newsroom.ryder.com/pressrelease/customer/shell-and-ryder-collaboratededicated-natural-gas-vehicle-solution

Washington, D.C. (1/27) Eagle LNG Partners has submitted an application with the U.S. DOE requesting long-term, multi-contract authorization to export LNG to FTA and non-FTA nations.

http://www.eagleIng.com/eagle-Ing-partners-submitsapplication-with-the-us-department-of-energy-toengage-in-Ing-exports/

Juneau, AK (1/27) The Alaska Journal of Commerce reports that ExxonMobil gave a presentation to the AK legislature, summarizing the benefits and disadvantages of the Alaska LNG project. (Note: the project partners are: BP, ConocoPhillips, ExxonMobil and the State of Alaska). http://www.alaskajournal.com/2016-01-27/legislature-gets-first-update-pros-cons-ak-lngproject#.VquX-PkrJpg

INTERNATIONAL NEWS

Zagreb, Croatia (12/31/15) LNG Croatia announced that it received 7 bids for investment in Croatia LNG. http://lng.hr/en/news-details/call-for-equityprocedure-ended-61

New Delhi, India (12/31) Petronet LNG, India's biggest LNG importer has renegotiated its agreement with Qatar's Rasgas. The new rate is estimated at \$6-7/MMBtu compared to \$12-13/MMBtu. http://www.petronetIng.com/NewsContent.aspx?newsi d=422

<u>Beijing, China</u> (1/5) A consortium of Chinese insurance companies started a fund to, among other things, invest in Russia's Yamal LNG project.

http://www.dealstreetasia.com/stories/chinainsurance-fund-to-invest-in-russias-yamal-Ing-25747/

Lahore, Pakistan (1/7) Facing a shortfall of approximately 2 Bcf/day, Pakistan is increasingly becoming more reliant on LNG imports. http://www.dawn.com/news/1231205

Houston, TX (1/11) ConocoPhillips announced that the first LNG cargo departed Australia Pacific LNG on Curtis Island.

http://www.conocophillips.com/newsroom/Pages/new s-releases.aspx?docid=2774410

London, U.K./Islamabad, Pakistan (1/12) According to Reuters, Pakistan is looking into developing a second LNG import terminal.

http://af.reuters.com/article/energyOilNews/idAFL8N1 4W28C20160112?sp=true Seoul, Korea (1/12) According to Platts, Korea Gas Corp., will continue with its attempt to sell its remaining 15% ownership at the Shell-led LNG Canada project. http://www.platts.com/latest-news/naturalgas/seoul/s-korean-kogas-to-push-ahead-with-plan-tosell-27136309

Tokyo, Japan (1/13) According to Japan's Ministry of Economy, Trade & Industry, LNG prices for the month of December 2015 remained at \$7.5/MMBtu. http://www.meti.go.jp/english/statistics/sho/slng/resul t/pdf/201512-e.pdf

<u>Vilnius, Lithuania</u> (1/13) According to Reuters, LITGAS (Lithuania's LNG importer) is postponing plans to import U.S. LNG. Lithuania's system has been designed for Russian gas making U.S. imports difficult. <u>http://www.reuters.com/article/lithuania-usa-Ing-</u> idUSL8N14X3IZ20160113

<u>Jerusalem, Israel</u> (1/13) According to the Bank of Israel, the fall in the global energy prices will negatively impact the viability of Israeli LNG exports. http://www.globes.co.il/en/article-bank-of-israel-gasexports-may-not-be-viable-1001095231

Rotterdam, Netherlands (1/15) In absolute terms the volume of LNG that transited through the Port of Rotterdam in 2015 is small at 2.3 million tones. However, this volume represents a 91.3% increase from the previous year.

https://www.portofrotterdam.com/en/news-and-pressreleases/the-port-of-rotterdam-achieves-a-recordthroughput-thanks-to-a-growth-of-49

<u>Tehran, Iran</u> (1/17) Iran's National Iranian Gas Exports Company is developing options to attract foreign investment in the Iran LNG project.

http://iranfrontpage.com/news/business/energies/201 6/01/iran-firing-up-first-Ing-project/

San Ramon, CA/Gorgon, Australia (1/18) Chevron's Australian subsidiaries have signed a second agreement with Chinese customers. The newer agreement is with ENN LNG Trading Company for 500,000 tons of LNG/year for a 10 year period.

http://www.chevron.com/chevron/pressreleases/articl e/01182016_chevronandennsigngorgonIngagreement.n ews

<u>Moscow, Russia</u> (1/18) According to Reuters, total investments for Novatek's Yamal project have reached \$15 billion.

http://af.reuters.com/article/energyOilNews/idAFR4N1 4X02M

Rio De Janeiro, Brazil (1/18) The BG Group is participating in the development of a new tanker design that is expected to reduce fuel costs and emissions by 3-5%. <u>http://www.bg-</u> group.com/~/tiles/?tiletype=news&id=846#opentile

Moscow, Russia (1/20) Gazprom and the Pakistani government are considering cooperating on energy matters such as joint hydrocarbon exploration in Pakistan and LNG sales to Pakistan.

http://www.gazprom.com/press/news/2016/january/ar ticle258246/

New Delhi, India (1/20) The first U.S. LNG imports to India are expected to begin in 2017, as India tries to diversify its portfolio.

http://www.livemint.com/Industry/m68UrJwByFEQUwr smhkAAK/India-to-receive-its-first-imports-of-US-shalegas-in-2017.html

Tokyo, Japan (1/20) Mitsubishi Corporation acquires full ownership of U.S. Cima Energy Ltd. Mitsubishi, which previously owned 34% of Cima, will now have better access to upstream projects thus securing supplies for the LNG facilities in which the company holds an interest (Cameron LNG & LNG Canada).

http://www.finanznachrichten.de/nachrichten-2016-01/36189323-mitsubishi-corporation-acquires-fullownership-of-cima-energy-ltd-011.htm

Moscow, Russia (1/22) The Russian government has approved the sale of a 9.9% interest in Novatek's Yamal project to China's Silk Road Fund.

http://www.reuters.com/article/us-russia-yamal-Ingchina-idUSKCN0V00YY

Jakarta, Indonesia (1/22) Indonesia's first mini LNG plant will begin operations in March 2016. http://www.thejakartapost.com/news/2016/01/22/ind onesia-s-1st-mini-Ing-terminal-operate-march.html <u>Cairo, Egypt</u> (1/22) Confusion persists regarding the reasons behind the postponement of a BP LNG cargo delivery. The country's EGAS Company denies that the reason was Egypt's inability to make payments.

Point: <u>http://maritime-executive.com/article/egypt-</u> skips-gas-bill-lng-shipment-diverted

Counter-point:

http://www.downstreambusiness.com/egypts-egassays-bp-lng-cargo-postponed-denies-payment-trouble-571301

<u>**Tehran, Iran</u>** (1/23) As Oman has vacant liquefaction capacity, a third of Iran's gas planned supply to Oman will be liquefied for exports.</u>

http://www.shana.ir/en/newsagency/253929/One-Third-of-Iran-Gas-to-Oman-Slated-for-LNG

London, U.K. (1/25) London-based Ophir Energy PLC has agreed to sell a 40% interest in its Fortuna LNG project in Equatorial Papua New Guinea to Houston, TXbased Schlumberger Ltd. <u>https://www.ophir-</u> <u>energy.com/press-release/equatorial-guinea-farm-in-</u> <u>operations-and-trading-update/</u>

Vilnius, Lithuania (1/25) Litgas, Lithuania's state company, and Statoil have renegotiated the pricing terms of the LNG contract between the two entities. According to Litgas commodity and facility maintenance costs will be reduced by about 30%. <u>http://www.baltic-</u> course.com/eng/energy/?doc=115775

<u>Singapore</u> (1/25) Netherlands-based Trafigura and Singapore-based Pavilion Gas made the first trade of "the just launched" derivatives contract for LNG. <u>http://www.sgx.com/wps/wcm/connect/sgx_en/home/</u> newsflash/mu-dt-25012016-2

Catalonia, Spain (1/25) The SENER Technology and Engineering Group has developed its own design for an LNG bunkering vessel. (SENER operates in the fields of aerospace, infrastructures and transport, power and process and marine).

http://www.senermar.es/NAVAL/News/sener-takesadvantage-of-their-experience-in-oil-and-gas-to-designa-Ing-bunkering-vessel/en#.Vqpjy_krJpg



The Hague, Netherlands (1/27) Shell shareholders have given the nod to the £40bn takeover of BG Group by a strong majority. <u>http://www.shell.com/investors/news-</u> and-media-releases/recommended-cash-and-shareoffer-for-bg-group-plc-by-royal-dutch-shellplc/ jcr content/par/textimage 1056784341.file/1453 897309381/26f6a18c2b9c6f31b2beaecf99b45ff5/shellshareholders-vote-in-favour-of-the-recommendedcombination.pdf

Denia, Spain (1/29) Denia, Spain-based Balearia shipping has placed an € 175 million order for an LNG powered ferry, which is expected to be the largest in the Mediterranean.

http://www.lanaval.es/archivos/201601/balearia-willbuild-a-smartship-and-eco-efficient-gas-powered-ferryin-lanaval.pdf?1

Dar Es Salaam, Tanzania (1/29) Tanzania moves a step closer to developing the LNG project that will process gas from the recent offshore discoveries. http://www.reuters.com/article/tanzania-energyidUSL8N15D0MS <u>Islamabad, Pakistan</u> (1/30) The government of Pakistan has authorized the fast-track setting up of small LNGbased generation projects. <u>http://www.dawn.com/news/1236247</u>

Analysis-Opinion-OTHER

Vienna, Austria (Dec. 2015) According to OPEC's 2015 Outlook, the Vienna-based organization is optimistic that "...lower oil prices and continuing uncertainties about the future of LNG infrastructure and regulatory developments, alongside possible delays in the implementation of new IMO rules, adds uncertainty for market players and, therefore, will support conventional ship technology and the ongoing use of oil-based fuels in the future."

http://www.opec.org/opec_web/static_files_project/m edia/downloads/publications/WOO%202015.pdf

Singapore (1/5) *"LNG Bunkering in Asia: Fueling a Promising Future?"* A paper by Kohe Hasan and Ang Liseah concluding that LNG bunkering in Asia has a bright future. <u>http://www.reedsmith.com/LNG-Bunkering-in-Asia-Fueling-a-Promising-Future-01-05-2016/</u>

Washington, D.C. (1/6) "Why US LNG Matters" by N. Tsafos, President & Chief Analyst at enalytica. http://www.naturalgaseurope.com/why-us-Ingmatters-27476

Doha, Qatar (1/7) "Qatar's LNG value chain efficiency is tough for other producers to match" Opinion in the <u>Gulf</u> <u>Times</u> on how Qatar can handle an oversupplied international LNG market.

http://www.menafn.com/1094524755/Qatars-LNGvalue-chain-efficiency-is-tough-for-other-producers-tomatch

<u>New York, NY</u> (1/7) "LNG Stock Crowded With Sellers" market update on the value of the stocks of LNG producers at <u>NASDAQ</u>. <u>http://www.nasdaq.com/article/lng-stock-crowded-</u> <u>with-sellers-cm562791</u>

<u>Edinburgh, Scotland</u> (1/13) According to a recent Wood Mackenzie_report, real growth in LNG will be post 2016. <u>http://www.woodmac.com/media-centre/12530450</u>

Cambridge, MA (1/15) "LNG and Renewable Power; Risk and Opportunity in a Changing World." With the proviso that the analysis is simplistic, the <u>Brattle Group</u> Report concludes that renewable will push LNG imports to the less favorable category. "It is [...] important to recognize that our analysis is deliberately simple and thus omits factors that would likely move the relative cost of imported LNG versus renewables one way or the other." (pg. 26)

http://www.brattle.com/system/publications/pdfs/000/005/249/original/LNG and Renewable Power -

<u>Risk and Opportunity in a Changing World.pdf?145</u> 2804455

London, UK. (1/18) "Sanctions removal paves way for abundant Iranian LNG exports" A paper discussing the impact of lifting the Iran sanctions on the LNG market. By Hal Brown at Lloyd's List

http://www.lloydslist.com/ll/sector/tankers/article4776 07.ece

Englewood, CO (1/22) According to HIS data, despite the global economic slowdown experienced in 2015 Chinese shipyards delivered 19 LNG tankers with a total gross tonnage of 879,612. <u>http://fairplay.ihs.com/shipconstruction/chinese-vessel-deliveries-fuel-globalovercapacity_20160122.html?mgs1=e66clZiuhH</u> (subscription may be required)

Dallas, TX (1/22) "The strengthening case for LNG exports" by Suzanne McCarron, at ExxonMobil Perspectives.

http://www.exxonmobilperspectives.com/2016/01/22/ the-strengthening-case-for-Ing-exports/

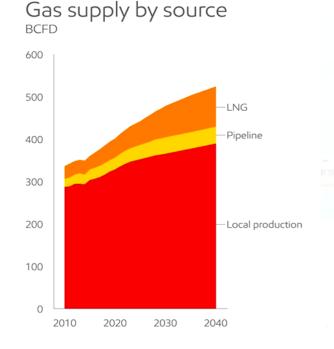
Dallas, TX (1/31) "Why Texas needs LNG facilities" Commentary by Ron Kirk former Mayor of Dallas ('95-'02) and US Trade Representative ('09-'13), in <u>THE</u> <u>MONITOR</u>.

http://www.themonitor.com/opinion/commentarywhy-texas-needs-lng-facilities/article_937e67a6-c6e1-11e5-952e-7bf7ae04ab2a.html **Irving, TX** (1/25) ExxonMobil's "The Outlook for Energy" projects energy demand to increase by 25% worldwide from 2010 to 2040. LNG demand, over the same period, will almost double, with Asia being the primary market.

Full Report:

http://corporate.exxonmobil.com/en/energy/energyoutlook

Natural Gas & LNG Chart (international markets):



Moscow, Russia (1/27) "Stumbling In: Europe's LNG Strategy Full of Shortcomings" opinion on the E.U's push for increased LNG use within the EU, at <u>Sputnik</u>. http://sputniknews.com/europe/20160127/103377612 8/gas-strategy-european-union.html

| Links to some entities mentioned in this issue | | |
|--|------------------------------|-------|
| LNG Canada | http://Ingcanada.ca/ | EV.04 |
| Croatia LNG | http://Ing.hr/en | |
| Texans for LNG | http://www.texansforIng.com/ | |
| Cima Energy Ltd. | http://www.cima-energy.com/ | |
| Schlumberger | http://www.slb.com/ | 12 |
| Golar LNG | http://www.golaring.com/ | |
| SENER | http://www.sener.es/home/en | |
| Eagle LNG | http://www.eagleIng.com/ | |