LNG WRAP-UP

NARUC LNG GROUP Monday, May 02, 2016

As of today, there are two LNG-related discussions scheduled for the July 2016 meetings in Nashville, TN. They will both take place on Sunday July 24th. More information 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)

NORTH AMERICA

FERC-Related (2016)

(3/30) Texas LNG submitted an application for Authority to site, construct and operate the proposed Brownsville, TX export facility.

http://elibrary.ferc.gov/idmws/file list.asp?accession n um=20160331-5064

(4/8) Jordan Cove Energy filed a request for rehearing of the FERC 3/11/2016 decision rejecting the application to construct and operate an LNG export facility in Oregon.

http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14198419

(4/15) The FERC granted Magnolia LNG an authorization to site, construct and operate a liquefaction and LNG export facility in Lake Charles, LA. http://www.ferc.gov/CalendarFiles/20160415152853-CP14-347-000.pdf

(4/18) The FERC issued an order authorizing Sabine Pass to introduce feed gas to Train 2 of the Cheniere's Sabine Pass facility.

http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14208084

(4/21) Cheniere's Corpus Christi Liquefaction submitted its March 2016 construction report. According to the report the total project is 32.5% complete.

http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14211670

Honolulu, HI (4/3) Hawaii Gas expects the LNG project costs reduced by \$100 million to approximately \$200 million.

http://www.bizjournals.com/pacific/news/2016/04/03/hawaii-gas-slashes-lng-costs-by-a-third.html

Houston, TX (4/5) Houston-based SCT&E LNG, Inc. announced a 4th MOU for the sale of LNG from the proposed Cameron Parish, LA facility.

http://finance.yahoo.com/news/sct-e-lng-signs-fourth-120700146.html; ylt=AwrXgSPuXAVXe00Ah8 QtDMD; ylu=X3oDMTByb2lvbXVuBGNvbG8DZ3ExBHBvcwMxBHZ 0aWQDBHNlYwNzcg--

The newsletter is compiled for NARUC's LNG Working Group using open-source resources, by Andreas Thanos. The information provided is for situational awareness and neither represents nor reflects any particular views of the LNG Working Group, NARUC, or its members. Mentions are not endorsements. For comments/corrections please email andreas.thanos@state.ma.us

<u>Calgary, AB</u> (4/8) Despite FERC's decision to reject the Jordan Cove LNG facility, Veresen announced a new preliminary agreement for the long-term sale of LNG. http://jordancovelng.com/wp-content/uploads/2016/04/VSN-Press-Release-20160408.pdf

<u>Brownsville, TX</u> (4/11) Based on the experience it acquired in Maryland, the Sierra Club expands its reach by training opponents of LNG facilities in Brownsville, TX.

http://www.valleymorningstar.com/news/local_news/article_a6c8e454-005b-11e6-b474-13a25f8c678c.html

Washington, D.C. (4/13) Flint Hills Resources received a 20 year, 3.62 Bcf/year, authorization from the US Department of Energy to export LNG to FTA nations. http://energy.gov/sites/prod/files/2016/04/f30/ord380 9.pdf

Washington, D.C. (4/15) The US Department of Energy granted Magnolia LNG an authorization to site, construct and operate a liquefaction and LNG export facility in Lake Charles, LA.

http://www.ferc.gov/CalendarFiles/20160415152853-CP14-347-000.pdf

<u>Warrenton, OR</u> (4/15) The Oregon LNG project announced that it is ceasing operations immediately. http://www.oregonlng.com/blog/the-oregon-lng-project-today-announced-it-is-ceasing-operations-immediately/

<u>Washington, D.C.</u> The U.S. DOE denies Sierra Club's request for rehearing of the order authorizing The Cove Point MD, Export Project.

http://energy.gov/sites/prod/files/2016/04/f30/ord333 1-B.pdf <u>Jacksonville, FL</u> (4/15) Crowley Maritime Corp. took delivery of Louisiana, the third Jones Act tanker with the capability to be converted for LNG-fueled propulsion. http://www.crowley.com/News-and-Media/Press-Releases/Crowley-Takes-Delivery-of-Louisiana-Third-Jones-Act-Tanker-with-LNG-Capability



<u>Washington, D.C.</u>(4/20) The U.S. Senate passed the Energy Policy Modernization Act of 2015 which, also requires the US DOE to decide on LNG export applications within 45 days of an environmental assessment. https://www.congress.gov/bill/114th-congress/senate-

bill/2012?q=%7B%22search%22%3A%5B%22%5C%22s2 012%5C%22%22%5D%7D&resultIndex=1

Houston, TX (4/21) The first Cheniere LNG cargo heading to Europe has left the Sabine Pass terminal on its way to Portugal. http://www.wsj.com/articles/first-u-s-gas-shipment-en-route-to-europe-1461253153

Washington, D.C. (4/22) According to US SEC documents, Tellurian Investments, the Company started by former Cheniere CEO Sharif Souki, raised over \$24 million from 45 investors.

http://www.sec.gov/Archives/edgar/data/1668706/000 166870616000004/xslFormDX01/primary_doc.xml <u>Cameron Parish, LA</u> (4/25) Cheniere ships its 7th cargo from the Sabine Pass export facility.

http://fuelfix.com/blog/2016/04/25/chenieres-sabine-pass-ships-seventh-cargo/

Washington, D.C. (4/26) The US DOT's Pipeline and Hazardous Materials Safety Administration (PHMSA) announces a public LNG Workshop meeting to solicit input for the formulation of "Liquefied natural Gas Facilities: Federal Safety Standards" https://www.gpo.gov/fdsys/pkg/FB-2016-04-

https://www.gpo.gov/fdsys/pkg/FR-2016-04-26/pdf/2016-09653.pdf

Washington, D.C. (4/27) An amendment, similar to the one passed by the US Senate on 4/20, setting a strict 30-day review process for LNG export applications was placed in the National Defense Authorization Act for 2017. http://www.washingtonexaminer.com/natural-gas-finds-strategic-place-in-defense-bill/article/2589720

Anchorage, AK (4/29) The Alaska LNG project will delay its formal application to the FERC by 3 months to November 2017. http://www.platts.com/latest-news/natural-gas/anchorage/alaska-lng-to-delay-filing-of-ferc-application-21368847

<u>Savannah, GA</u> (4/30) Concern is being raised regarding Elba Island's emergency response plans. http://savannahnow.com/news-latest-news/2016-04-30/elba-plant-urged-share-plan-fire-attack

INTERNATIONAL NEWS

<u>Houston, TX</u> (4/1) Bloomberg reports that Cheniere sold its second shipment produced at the Sabine Pass terminal to India's GAIL.

http://www.bloomberg.com/news/articles/2016-04-01/india-s-gail-buys-cheniere-s-second-lng-cargo-from-sabine-pass

<u>Tokyo, Japan</u> (4/4) After Indonesia's prime minister expressed his support for an on-shore LNG plant (see April 2016 issue), INPEX received notification to "repropose" a plan to develop an onshore LNG facility for the Abadi LNG project.

http://www.inpex.co.jp/english/news/pdf/2016/e2016 0404.pdf

<u>Oslo, Norway</u> (4/5) In an effort to address the competition by Russian and U.S. LNG, Statoil will increase gas production.

http://www.bloomberg.com/news/articles/2016-04-05/norway-may-boost-gas-output-as-russia-u-s-lng-supply-increases

<u>Perth, W. Australia</u> (4/6) Mechanical issues have caused a temporary shutdown of LNG production at Australia's Gorgon facility.

https://www.chevronaustralia.com/news/mediastatements/2016/04/06/Ing-production-at-gorgontemporarily-halted

<u>Doha, Qatar</u> (4/6) Qatargas and Kuwait Petroleum Corporation entered in to supply Kuwait with half a million tons of LNG from March 2016-March 2020. http://www.gulf-times.com/story/487546/Qatargas-infour-year-deal-to-supply-LNG-to-Kuwait

<u>Tokyo, Japan</u> (4/11) Tokyo Gas and power utility Kansai Electric Power Co announced that they will partner up on LNG purchases and share technology for gas-fired power plants. http://www.tokyo-gas.co.jp/Press e/20160411-01e.pdf

Helsinki, Finland (4/11) Wärtsilä will supply LNG fuelled engines for two ferries of the British Columbia Ferry Services. The conversion will take place in Poland. http://www.wartsila.com/media/news/11-04-2016-wartsila-to-deliver-complete-gas-solution-for-two-canadian-ferries-to-be-converted-by-remontowa-for-Ing-operation

<u>Tokyo, Japan</u> (4/11) Lower demand led to a decrease in the average price of spot-LNG purchases in Japan for the month of March 2016.

http://www.meti.go.jp/english/statistics/sho/slng/result/pdf/201603-e.pdf

<u>Doha, Qatar</u> (4/17) Qatargas, United Arab Shipping Company and Shell signed an MOU to explore the development of LNG as a marine fuel in the Middle East. http://www.uasc.net/en/news/160417/qatargas-shell-and-uasc-continue-lead-way-development-liquefied-natural-gas-marine-fuel

<u>Tehran, Iran</u> (4/18) EU Energy Commissioner Miguel Arias Canete expects that Iranian LNG will play a significant t role in the EU's energy mix.

http://www.wsj.com/articles/eu-energy-chief-sees-significant-role-for-iranian-lng-in-europe-1460978666

<u>Washington, D.C.</u> (4/19) The D.C. Circuit Court heard oral arguments on the Sierra Club's lawsuit against the FERC.

https://stateimpact.npr.org/pennsylvania/2016/04/19/federal-appeals-court-hears-arguments-over-lng-exports/

<u>Helsinki, Finland</u>(4/22) A new Finnish LNG-powered icebreaker began sea trials.

http://arctech.fi/icebreaker-polaris-left-on-sea-trial/



Sydney, Australia (4/25) The Sydney Morning Herald reports that the ratings of two major LNG players in Australia have been downgraded to negative by Fitch Ratings.

http://www.smh.com.au/business/energy/woodsidepetroleum-origin-energy-have-outlooks-downgradedby-fitch-20160424-goe23t.html

<u>Luxemburg City, Luxemburg</u> (4/26) Chart Industries began the inaugural public filling of an LNG rail car. http://www.chartindustries.com/News- <u>Events/News/LNG-Rail-Car-fueling-at-Brunsbuttel-port</u> <u>Sydney Australia</u> (4/26) According to Bechtel, The Queensland LNG plants are operating above the "typical industry standards.

http://www.smh.com.au/business/energy/qld-lng-plants-beating-expectations-on-production-20160415-go7oxg.html

<u>La Defénce, France</u> (4/28) Engie and the Port of Antwerp have entered into an agreement to develop sustainable infrastructure to be powered by LNG, CNG and Electricity.

http://www.engie.com/en/journalists/pressreleases/first-energy-hub-lng/ related video: https://youtu.be/-vm3je-Aq-o

Sydney, Australia (4/29) The start-up of the Australia Pacific LNG facility has helped boost Origin Energy. https://www.originenergy.com.au/about/investors-media/reports-and-results/quarterly-production-report-march-2016.html

<u>Luanda, Angola</u> (4/29) According to John Watson, Chevron CEO, the Angola LNG facility is expected to resume exports in May 2016.

https://www.lngworldnews.com/angola-lng-to-ship-cargo-in-may-chevron-ceo-says/

Beijing, China (5/1) The China Offshore Oil Engineering Corporation has shipped Chinese equipment to be installed at Russia's Yamal LNG project.

http://english.cctv.com/2016/05/01/VIDEq0avEt2vsXohpPbgvYCY160501.shtml

Barrow Island, Australia (5/1) Chevron expects to restart LNG production at the Gorgon project, located on Barrow Island, 60 miles NW of Australia, in May. http://www.smh.com.au/business/energy/chevron-expects-to-restart-gorgon-lng-production-in-may-20160428-goheat.html

Analysis-Opinion-OTHER

Washington, D.C. (4/12) "North American Midstream Infrastructure Through 2035: Leaning into the Headwinds" A report prepared by ICF International for the INGAA Foundation.

http://www.ingaa.org/File.aspx?id=27961&v=db4fb0ca

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Paris, France (4/13) The International Group of Liquefied Natural Gas Importers (Groupe International des Importeurs de Gaz Naturel Liquéfié) published the 2016 edition of "The LNG Industry Annual Report. http://www.giignl.org/sites/default/files/PUBLIC AREA/Publications/giignl 2016 annual report.pdf

New York, NY (4/25) "U.S. To Undermine Russia's Gas Monopoly In Europe" Opinion by Nick Cunningham of OilPrice.com. http://oilprice.com/Energy/Energy-General/US-To-Undermine-Russias-Gas-Monopoly-In-Europe.html

<u>Houston, TX</u> (4/25) A video clip on Cheniere's Sabine Pass facility and the LNG market.

http://www.bizjournals.com/houston/video/Axd2ozMz E6tKbjUU6SDilS-jCZZ2WWis

<u>Washington, DC</u> (4/26) According to EIA/DOE analysis, Canada's NEB expects that although pipeline exports to the US will decrease, LNG exports to other countries will increase.

http://www.eia.gov/todayinenergy/detail.cfm?id=2597 2&src#

<u>Cameron Parish, LA</u> (4/27) "A 'global bid' for US LNG as Sabine Pass celebrates grand opening" by Alison Good at SNL.

https://www.snl.com/Interactivex/article.aspx?CdId=A-36257614-12843

Washington, D.C. (4/30) "Asia's LNG Market Breaking Down, Reform Comes Next – Analysis" Analysis by Stewart Taggart in the Eurasia Review.

http://www.eurasiareview.com/30042016-asias-lng-market-breaking-down-reform-comes-next-analysis/

LNG 18 - Related (Perth, W. Australia)

(4/12) As a result of an agreement it entered into with Norway's Siem Offshore Australia, Woodside Petroleum will operate the first LNG-powered marine support vessel in 2017.

http://www.woodside.com.au/Investors-Media/announcements/Documents/12.04.2016%20Me dia%20Release%20-%20LNG- powered%20Vessel%20First%20For%20Australia.pdf

(4/11) Shell CEO, Ben van Beurden, recognizes that a reduction of capital costs is essential for the industry to remain competitive.

http://www.marketwatch.com/story/shell-ceo-lng-costs-must-drop-to-be-competitive-2016-04-11

(4/11) John Watson, Chevron's CEO projects that LNG demand will increase by 35% over the next 20 years (2016-2036) http://www.nasdaq.com/article/chevron-ceo-says-lng-demand-to-increase-35-over-next-20-years-20160411-01173

(4/12) Western Australia's department of State Development estimates that Asia-Pacific demand for LNG will increase by 36% to 245 million metric tons by 2025. http://www.platts.com/latest-news/natural-gas/singapore/asia-pacific-lng-demand-to-rise-to-245-mil-mt-27452150

(4/12) The prepared statement of Peter Coleman, CEO and Managing Director of Woodside Energy.

http://www.woodside.com.au/Investors-
Media/announcements/Documents/12.04.2016%20CE
O%20Address%20at%20LNG%2018%202016.pdf

(4/14) :Half of LNG shipment volumes could be spot in 2020"

http://fairplay.ihs.com/commerce/article/4266181/half -of-lng-shipment-volumes-could-be-spot-in-2020?utm_source=email&utm_medium=newsletter&ut m_campaign=dailynewswire&mgs1=1930mFzqvU

(4/14) Reuters: "Global LNG producers look up to open new markets to soak up surplus" http://af.reuters.com/article/energyOilNews/idAFL3N1 7G2SZ?sp=true