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Sempra's North American LNG exports could total 45 million tonnes

(Reuters; March 27) - Sempra Energy is working aggressively to become one of the biggest liquefied natural gas exporters in North America, the California-based energy company's CEO Jeff Martin told Reuters on March 27. Sempra is developing five projects — Cameron phases 1 and 2 in Louisiana, Port Arthur in Texas and Costa Azul phases 1 and 2 in Baja California in Mexico — totaling about 45 million tonnes of LNG per year, or roughly 6 billion cubic feet per day of U.S.-produced natural gas.

If Sempra builds all that capacity, it could become the second biggest North American LNG exporter behind current market leader Cheniere Energy, which is expanding its two export terminals in Louisiana and Texas. "We are going to move aggressively to unlock these five projects over the next three to five years," Martin said. The first phase at the \$10 billion Cameron project is nearing completion, at 10 million tonnes annual capacity. Martin said Sempra expects to finish the first liquefaction train in the second quarter this year, Train 2 in the fourth quarter, and Train 3 in the first quarter of 2020.

Martin said Sempra and its partners at Cameron — Mitsubishi, Mitsui and Total — already are working on a study for Phase 2 expansion at 8 million tonnes. At Port Arthur, Sempra has a "big marketing effort to see if we can get sufficient contracts to reach a final investment decision by the first quarter of 2020," for 12 million tonnes, enabling the project to secure financing, Martin said. In Mexico, Sempra also wants to build an export terminal at its underutilized LNG import facility on the Baja Peninsula.

Sempra may boost output at proposed Baja Mexico LNG export plant

(S&P Global Platts; March 27) - Sempra Energy is considering renegotiating its import and regasification contracts at the Mexico terminal where it wants to add liquefaction services. The intent is to allow even more LNG export capacity than currently planned, executives said March 27. The effort reflects the San Diego-based utility and energy infrastructure developer's confidence in the direction of commercial talks it is having with potential offtakers to support the LNG project at Energia Costa Azul in Baja California.

"The time to capitalize on this opportunity is right now," said Justin Bird, president of Sempra LNG. In November, Sempra reached preliminary agreements with offtakers that, if finalized, would cover all of the liquefaction capacity for the first phase of the export project at Energia Coast Azul. It said at the time that the heads of agreement

with affiliates of France's Total and Japan's Mitsui and Tokyo Gas put it on target to make a final investment decision on the project by late this year.

Talks have picked up, and now Sempra is eyeing possibly expanding beyond the 15 million tonnes per year of capacity proposed for the project. Bird said the company is trying to see if it can add additional capacity or work with regasification customers to terminate contracts early. He said Phase 1 of the project was proposed because it could co-exist with existing regasification contracts. Phase 2, as originally designed, could not co-exist with the existing regas contracts that expire in 2028, he said. "I have challenged the team to see if we could get more capacity out of the project," Bird said.

Freeport LNG starts commissioning work for third-quarter start-up

(Reuters; March 28) - Freeport LNG's \$13 billion liquefied natural gas export plant in Texas moved a step closer to entering service after federal regulators on March 28 approved a key step for the plant. The Federal Energy Regulatory Commission approved Freeport's request to introduce hazardous fluids to commission the liquefaction flare pilot system, a step in the process that LNG terminals go through as they prepare for service.

The first train at Freeport is expected to enter commercial service in the third quarter, according to McDermott International, which is building the plant, and U.S. pipeline company Williams Cos., which is building a pipe to connect the plant to the interstate gas system. McDermott said it expects Train 2 to enter service in the first quarter of 2020 and Train 3 in the second quarter of 2020. Each train at Freeport will have the capacity to produce about 5 million tonnes of LNG per year.

Freeport has 20-year contracts to sell LNG to Osaka Gas and JERA — an alliance between Japanese power companies Tokyo Electric and Chubu Electric — from Train 1; British oil major BP from Train 2; and Chinese chemicals company ENN Ecological Holding and South Korean company SK E&S from Train 3. Freeport also has a threeyear deal to sell 500,000 tonnes per year to commodity trading firm Trafigura Group starting in July 2020. In addition, Freeport is developing a fourth liquefaction train at the facility and could make a final investment decision in the second quarter of 2019.

Cheniere says new deals with China on hold until trade fight settled

(The Financial Times; London; March 28) - The largest U.S. exporter of liquefied natural gas said that deals for the fuel with China are on hold until the two countries resolve a trade spat that has disrupted the shipment of goods from soybeans to medical equipment. Eric Bensaude, a top executive at Houston-based Cheniere Energy, said

negotiations with Chinese importers, among the most important buyers in the LNG market, are on ice since political relations have worsened.

President Donald Trump's top economic adviser has said that talks to end a tariff war between the world's two most powerful economies could carry on for "months," in the latest sign of a lack of traction in negotiations. Bensaude said this week that Trump "is definitely making some headwinds for us to sell long-term contracts to China." Cheniere has been caught up in the spat as China added a 10 percent tariff on U.S. LNG imports as part of the tit-for-tat war. Instead, China has bought more LNG from rival producers.

"[The buyers] have received instructions not to enter into more transactions," Bensaude said, though he is optimistic the stand-off would be resolved and that Cheniere and its Chinese buyers — such as big utility companies — are ready to sign new deals when an agreement is reached. "It's down to two men," he said of the heads of both countries. LNG producers such as Cheniere need long-term purchasing agreements with Chinese importers so that lenders can feel comfortable backing new developments.

China 'quietly resumed' construction on suspended coal power plants

(Reuters; March 28) – China restarted construction on more than 50 gigawatts of suspended coal-fired power plants last year, bucking a shift away from fossil fuels, a new study showed March 28. China has repeatedly pledged to reduce its reliance on coal, a major source of smog and climate-warming greenhouse gases, and it has already cut coal's share of its energy mix to 59 percent, down from 68 percent in 2012.

But satellite images show China "quietly resumed" construction in 2018 on dozens of previously shelved plants, making it a "glaring exception to the global decline," said a joint report by environmental groups Global Energy Monitor, Greenpeace, and the Sierra Club. China's National Development and Reform Commission and its National Energy Administration did not immediately respond to requests for comment on the report.

China's domestic coal power capacity under construction rose 12 percent in 2018, though it was still a third lower than what was being built in 2015. Beijing has also cut back dramatically on new project permits. While China has vowed to cap consumption nationally and even make cuts in regions like Beijing, Hebei, and Henan, overall coal-fired generation has increased, particularly in the nation's northwest. And though it has promoted alternative fuels at home and built hundreds of solar and wind farms, China is still financing more than a quarter of all the new coal-fired plants abroad.

FERC assessment gives OK to expansion at Corpus Christi LNG

(S&P Global Platts; March 29) - Cheniere Energy on March 29 received a positive environmental assessment from the Federal Energy Regulatory Commission for its Corpus Christi Stage 3 project, the latest advance for the project that would boost capacity at the company's Texas facility. FERC staff concluded that the expansion with mitigating measures would not significantly affect the quality of the human environment.

It comes several days after the disclosure that the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) plans to complete its review of the project by May 17. The developments shed light on progress for the proposed expansion, which entails seven midscale liquefaction trains capable of producing up to 11.45 million tonnes of LNG per year. It would double the facility's capacity to 23 million tonnes.

Since starting operations in late 2018, the Corpus Christi facility has exported nine cargoes. Cheniere has not yet announced offtake agreements for the Stage 3 expansion but is continuing to talk with potential buyers. The LNG sector is watching for whether federal regulators are able to stay on pace, after FERC fell behind a published schedule earlier this year — and as some project reviews were slowed by the partial federal government shutdown, which included furloughs of PHMSA staff.

FERC issues draft EIS for LNG project and pipeline in Oregon

(The Oregonian; March 30) - Federal energy regulators issued a draft analysis March 29 of the environmental impacts of the Jordan Cove Energy Project in Oregon, the controversial \$10 billion proposal to build a liquefied natural gas export terminal on the north spit of Coos Bay and a 229-mile gas pipeline that would stretch across the southern part of the state. The Federal Energy Regulatory Commission also opened a public comment period on the draft environmental impact statement until July 5.

The draft includes 137 recommendations to reduce and mitigate impacts should the commission decide to approve the project. The company hopes for a decision by September. The draft EIS concluded that the project "would result in temporary, long-term and permanent impacts on the environment." But it said many of the impacts would not be significant or would be reduced to less than significant levels with the implementation of proposed impact avoidance, minimization, and mitigation measures.

"However, some of these impacts would be adverse and significant," the report said. Those included significant impacts on housing in Coos Bay; permanent and significant impacts on the visual character of Coos Bay; and adverse impacts on 13 threatened and endangered species, including the marbled murrelet, northern spotted owl, and coho salmon. Calgary-based Pembina Pipeline is promoting the LNG project to provide access to Asian markets for Western Canadian and U.S. gas. This is the project's second attempt at winning FERC approval.

Colorado on verge of giving communities more control over drilling

(Wall Street Journal; March 29) - A conflict between those who say oil and gas drilling has crept too close to backyards and schools and risks marring the environment and those who tout its economic benefits for rural areas is once again flaring in energy-rich Colorado. Lawmakers have long struggled to find common ground on how to regulate a surge of drilling activity along this growing corridor at the foot of the Rockies, where oil-and-gas equipment juts out from farmland and derricks loom close to new subdivisions.

Now a newly Democratic-controlled legislature is on the verge of passing regulations that backers say are the most significant new rules in 60 years. "It's been a very long time since we've had any meaningful oil and gas reforms in Colorado, and oil and gas activity has moved closer to where people live," said Rep. Steve Fenberg, a Democrat from Boulder and sponsor of the legislation. Dan Haley, president of the state's oil and gas association, said the bill is "driving a significant amount of uncertainty."

The legislation gives local communities greater control over drilling permits, the state new regulatory powers, and reduces the number of people with industry ties on a commission that oversees oil and gas, while requiring the body to place more emphasis on health, safety, and the environment. The bill initially cleared the state Senate and, after a marathon debate March 28, passed the House. It now heads back to the Senate for final approval. Democratic Gov. Jared Polis has said he would sign it.

Consultant doubts B.C. tax breaks will attract more LNG projects

(Vancouver Sun; March 27) - Legislation from the British Columbia government to change the province's tax structure to encourage liquefied natural gas development is good for the C\$40 billion Shell-led LNG Canada project but is unlikely to spur any others to move ahead, according to an energy consultant. "The legislation enshrines promised tax changes to get one project going, but I don't see anything there that is going to attract other investment. ... I doubt it incents other projects to take a final investment decision," said Ed Kallio, a principal of Calgary-based Eau Claire Energy Advisory.

The changes introduced last week by Premier John Horgan's government will amend the Income Tax Act to provide a tax credit for LNG development and also repeal the Liquefied Natural Gas Income Tax Act. That act, introduced under the previous government, was meant to create a new tax on LNG to provide additional benefits for British Columbians, including putting money into a "prosperity fund."

However, even with those barriers to industry removed, new LNG hopefuls would have to contend with the province's clean energy plan, which sets ambitious greenhouse gas reduction targets, Kallio said. That target calls for a 40 percent reduction by 2030 over 2007 levels. The plan unveiled in early December targets industry for a large chunk of the reductions, including electrifying production of the oil-and-gas industry in

northeastern B.C., which accounts for 20 percent of methane emissions. The plan also will increase the province's carbon tax, now at \$35 per tonne, to \$50 by 2021.

Developer wants to export U.S. gas from Mexico LNG terminal

(Houston Chronicle; March 28) – Houston-based Mexico Pacific Ltd. has cleared a regulatory hurdle after getting permission from the U.S. government to export natural gas from its proposed liquefied natural gas terminal south of the border. The U.S. Department of Energy approved Mexico Pacific Ltd.'s request on March 27 for exports to non-free trade nations around the world, the company reported.

Working to secure permission from U.S. and Mexican regulators, the company is seeking to build an LNG export terminal in Puerto Libertad, Sonora. Located along the Gulf of California about 325 miles southeast of San Diego, the facility as proposed would produce up to 12 million tonnes of LNG per year. It would get gas from the Permian Basin of West Texas via an existing gas pipeline. The company would like to make a final investment decision in the first half of 2020 and begin production in the second half of 2023, said Mexico Pacific Ltd. President Josh Loftus.

Putin orders Russian government to help with Arctic LNG-2

(The Moscow Times; March 28) - Russian President Vladimir Putin ordered an allocation of budget funds in 2021-2022 to help with development of the Utrenny natural gas field in Siberia and an accompanying liquefied natural gas export terminal on the Gydan Peninsula, the Kremlin said on its website. Some of the money will be used to reconstruct a navigable channel in the Gulf of Ob in the Kara Sea. The website announcement did not provide any budget numbers.

The Utrenny gas field is being developed by Russian gas giant Novatek and will serve as the resource base for the company's proposed Arctic LNG-2 project, planned for almost 20 million tonnes of annual capacity. Arctic LNG-2 would be constructed east of Novatek's first Arctic LNG terminal, Yamal, which started shipments in December 2017. The Russian government also provided funding for the Yamal development, including the port, airport, and dredging.

Novatek may move into power generation to boost demand for its gas

(Bloomberg; March 29) - Novatek is looking at power generation to unlock demand for liquefied natural gas from its massive projects in Russia's Arctic. The developer of the Yamal LNG plant in Siberia is seeking to be on a par with global majors Shell and Total

in a global push to expand its gas sales to the electricity market. Novatek will consider joint ventures to take the next step from gas to power and help nations such as India clean their air, said Chief Financial Officer Mark Gyetvay.

"There are still billions of people on this planet that don't have access to power, so we may need eventually to look further downstream, we may need in the future to partner up with other potential projects to bring power, to take it from gas to power," Gyetvay said in an interview in London. The world's biggest energy companies will gather at the LNG2019 conference in Shanghai next week amid increasing pressure from investors to protect their business from a shift to lower-emission fuels.

Novatek has already teamed up with German company Siemens to explore cooperation in areas including LNG supply and power generation. For LNG producers, investments in gas and power infrastructure in regions that offer significant demand potential helps secure an outlet for the supply from their multibillion-dollar liquefaction projects. At a time of fierce competition among global LNG producers, having a customer secured through mechanisms such as an integrated gas-to-power project is a boost.

Israeli gas producer looks to take stake in Egypt's LNG export plants

(S&P Global Platts; March 25) - Israel's Delek Drilling — partner with U.S.-based Noble Energy at the giant Tamar and Leviathan gas fields offshore Israel — said March 24 it could try to take a stake in Egypt's two liquefied natural gas export plants as part of its efforts to monetize its vast gas resources. In its 2018 annual report, Delek said it was also interested in other forms of cooperation with the operators of the two LNG facilities — the 7.2-million-tonne-per-year Idku plant and the 5-million-tonne Damietta plant.

It could include buying liquefaction capacity at the plants or "other arrangements in connection with the use of liquefaction services." Idku is operated by a Shell-led consortium, while Damietta is operated by UFG, a joint venture between Italy's Eni and Spain's Naturgy. The combined gas reserves at Tamar and Leviathan are estimated at about 32 trillion cubic feet, with Tamar to date serving the domestic Israeli gas market. Leviathan is due to start producing at the end of 2019, according to operator Noble.

Delek and Noble have a deal to supply Egypt's Dolphinus Holdings with more than 2 tcf of gas over a 10-year period, for use in the domestic Egyptian market. However, Egypt is also positioning itself as a future hub for LNG exports, and surplus Israeli gas could be supplied to the LNG plants for export. Egypt has only recently restarted its LNG exports after new production allowed the country to halt LNG imports and restart feed gas to the 15-year-old liquefaction terminals — which could handle even more gas.

Asian LNG spot-market prices continue fall, down to \$4.40

(Reuters; March 28) - Asian spot prices for liquefied natural gas this week fell to their lowest in nearly three years driven by excess supply and lack of buying interest. Spot prices for May delivery to Northeast Asia dropped to \$4.40 per million Btu, down 25 cents from the previous week and the lowest since April 2016, Refinitiv data showed.

Russia's Sakhalin-2 and Angola LNG plants are offering cargoes for April to May, traders said. Australia's new Ichthys project sold at least one cargo for April while Indonesia's Pertamina offered a spot cargo for May and 11 more cargoes for May to December, the sources said. Buying interest from North Asia was scarce except for one recent purchase from South Korea's POSCO for a May cargo at about \$4.40 per million Btu, two trade sources said. Gas inventories in Asia are high and buyers are shunning cargoes and redirecting them to Europe, sources said earlier this week.

LNG prices are collapsing across the globe as supplies from the United States to Australia flood the market, sparking concern that some exporters will have to curtail output and raising questions about new investments, Bloomberg has reported. While prices typically ease this time of year as mild weather in the northern hemisphere crimps demand, a boom in output of the fuel is exacerbating the slump.

Australian manufacturers suffer under high natural gas prices

(Australian Financial Review; March 27) – Australia's East Coast manufacturers' grievances about high natural gas prices have gone up a notch as Asian LNG spot prices sink to a three-year low amid a market oversupply, leaving local businesses paying almost double the rate some see as the benchmark price. The Pacific spot price for LNG has sunk to US\$4.50 per million Btu, though oil-price-linked long-term contract prices are substantially higher. The Sydney spot price on March 27 was about \$11.

"What is going on? If this keeps up there will be more companies going out of business," said Garbis Simonian, managing director of Australia gas wholesaler Weston Energy, which last week saw its second customer in two months bring in administrators, partly because of rising energy prices. "A lot of people are under pressure. How many more businesses do they want to go broke?" Simonian said.

Last week Queensland-based brick and paver manufacturer Claypave, a 34-year-old business that employs up to 50 people, appointed a voluntary administrator. In January the country's last producer of polystyrene coffee cups, Remapak, fell victim to high gas prices but is continuing to trade while administrators seek a buyer. Australian Competition and Consumer Commission Chairman Rod Sims last month called on East Coast gas producers to do more to help customers, warning that if more businesses start to fail governments will face increased pressure to intervene further in the market.

Korea Gas starting to see return on overseas gas investments

(Business Korea; March 27) - Korea Gas is starting to make a small profit on its overseas investments. The state-run company is pushing ahead with a total of 25 projects in 23 countries around the world in order to secure a stable supply of natural gas and create future growth engines. Its projects include natural gas exploration, development and production, liquefied natural gas projects, and construction and operation of overseas gas pipelines and LNG terminals.

KOGAS is looking to be a successful partner in the Eni-led Coral South floating liquefied natural gas project now under construction for offshore Mozambique, and the ExxonMobil-led venture that is considering an even larger, onshore LNG terminal in the same country. KOGAS posted 42.20 billion won (US\$37.18 million) in net profit in overseas projects last year. "This is the result of a strong showing in the Gladstone LNG project in Australia and the gas fields in Myanmar," a company official said.

KOGAS is also a partner in the Shell-led Prelude venture, a 1,600-foot-long liquefaction factory stationed offshore Australia. Prelude is expected to start shipping LNG soon.

Lower interest rates boost Sempra's return at Louisiana LNG project

(San Diego Union-Tribune; March 27) - Sempra Energy has made a huge investment in liquefied natural gas facilities and company executives said March 27 that they expect bigger returns than first expected from a \$10 billion project that's about to launch. The first phase of the Cameron LNG facility on the Gulf Coast of Louisiana is anticipated to generate from \$400 million to \$450 million per year for the company, compared to earlier projections of \$365 million to \$425 million.

The company said the improved estimates were due to the ability to finance the project at lower interest rates and what Sempra Chief Financial Officer Trevor Mihalik said was "a tighter handle on the total construction costs" as the facility nears completion. Liquefaction units are called trains, and the first train at Cameron is expected to begin producing LNG by the end of June, sending gas to customers around the globe.

Trains 2 and 3 are expected to come online by the fourth quarter of this year and the first quarter of next year, respectively. Trains 1 through 3 will make up Phase 1 of the Cameron project but the company said the footprint for the project — about 2 miles long and half-mile wide — is large enough so that Phase 2 could be expanded to contain as many as seven trains. Total, the French energy giant, and Mitsui and Mitsubishi of Japan have partnered with Sempra on the Cameron project.

Final EIS for Tacoma LNG says project will help reduce emissions

(Tacoma News Tribune; March 29) - After months of review, two public hearings and thousands of public comments, the final version of a report prepared for the Puget Sound Clean Air Agency likely will do little to calm the fight over a liquified natural gas plant under construction on Tacoma's Tideflats. More than a year after calling for a new environmental review of Puget Sound Energy's \$310 million LNG production and storage facility, the Puget Sound Clean Air Agency issued its final report March 29.

Similar to the draft review released in early October, the final supplemental environmental impact statement listed major conclusions that echo the first round of findings with minor tweaks. It maintains that the plant would "result in an overall decrease in greenhouse-gas emissions, a net beneficial impact compared to the noaction alternative." And it said the gas supply needs to come from British Columbia or Alberta, which have tighter emissions controls than the United States.

The draft report in October was denounced by environmentalists, people who live near the plant and others, including the Puyallup Tribe. On its website, the clean air agency said it will now "recommence processing the Notice of Construction. There will be opportunities for public comment (including a hearing) on any proposed approval, when the agency reaches that stage in the process." The LNG plant would serve the maritime transportation industry and help meet area utilities' peak-demand spikes for the fuel.

Minnesota approves oil pipeline project, leaving it up to the courts

(Minnesota Public Radio; March 26) - Minnesota regulators have granted their final approval to the contentious Line 3 oil pipeline replacement project. Opponents of the project — including the state Commerce Department — had petitioned the Minnesota Public Utilities Commission to reconsider its approval from June. The commission unanimously rejected that request March 26. Now the process moves to the courts.

Tribes and environmental groups have already sued to overturn the state-approved environmental review for Line 3. The Minnesota Court of Appeals held a hearing on that challenge last week. Appeals have also been filed to block the utility commission's route permit for the line. Last year the commission approved Enbridge's plan for replacing its aging Line 3 oil pipeline, which has been moving oil from Alberta since the 1960s. The company said then it anticipated having the new pipeline in service by the end of 2019.

But the company still needs several state and federal permits before it can break ground on the project in Minnesota. Earlier this month, the state gave the company a timeline for issuing those permits that will likely put the new line in operation in the second half of 2020. The new line would replace one of the five Enbridge pipelines that carry oil across northern Minnesota. The \$2.9 billion project has drawn opposition from environmental groups, tribal groups, and some tribal governments and climate-change activists.