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Next wave of mega-projects will test whether industry learned lesson

(Bloomberg; Aug. 14) - Investors are about to find out whether the world's largest oil and gas companies learned their lesson from cost blow-outs in major projects during the era of \$100 oil. From liquefied natural gas in Mozambique to deep oil in Guyana, the biggest energy companies are gearing up to sanction the first slate of mega-projects since the price crash in 2014, Wood Mackenzie analysts including Angus Rodger said in a report.

Firms will approve about \$300 billion in spending on such ventures in 2019 and 2020, more than in the three years from 2015 to 2017 combined. That spree will provide the first real test to the capital discipline that energy companies have vowed they adopted after the oil-price collapse, when they downsized their ambitions and began to complete projects on time and under budget. Before the crash, the 15 biggest oil and gas projects combined went \$80 billion over budget, eating away at investor returns, Rodger said.

Cost overruns on projects sanctioned from 2008 to 2014 diluted returns to 12 percent on average, compared with an expected 19 percent at the time of investment, according to Wood Mackenzie. "Oil companies already had a history of bad project management, and then adding \$100 oil to that was like pouring gasoline on a fire," Rodger said.

Most of the new planned projects are giant, capital-intensive LNG plants, such as Mozambique LNG and Canada LNG in British Columbia. LNG expansion efforts in Qatar and Papua New Guinea are also nearing final investment decisions. "There is a looming wave of big, pre-FID LNG developments building on the horizon, all aiming for sanction between 2018 and 2020," Rodger said.

Caspian Sea nations sign deal likely to boost oil and gas production

(Wall Street Journal; Aug. 12) - Leaders of five Caspian Sea nations on Aug. 12 signed an agreement that aims to settle a longstanding dispute over ownership of oil and gas reserves in the landlocked body of water. Caspian reserves as of 2012 were estimated at 48 billion barrels of oil and 292 trillion cubic feet of gas, said the U.S. Energy Information Administration, indicating that the deal could trigger a surge in exploration and the construction of new pipelines. Specific details of the deal — which the presidents of Russia, Kazakhstan, Iran, Azerbaijan and Turkmenistan signed at a summit in the Kazakh port city of Aktau weren't revealed, but details from an early draft of the agreement outlined certain key provisions. They include defining and regulating "the rights and obligations of each of the countries with respect to the use of the Caspian Sea waters, bottom, subsoil, natural resources, and airspace over the body of water." The agreement also allows each party to "lay submarine cables and pipelines along the bottom of the Caspian Sea."

Over the past decade, major oil companies have made massive investments in the world's largest enclosed inland body of water by area. The sea holds Kazakhstan's giant Kashagan oil field, the world's most expensive oil project with costs of more than \$50 billion since 2000. With shareholders including Italy's Eni, Total, Shell, and ExxonMobil, it started producing in 2016 after 16 years of development. The Caspian also contains Azerbaijan's largest gas field, Shah Deniz, operated by BP.

Shell's LNG Canada 'tremendously important' for oil patch economy

(CBC News; Aug. 13) – Canada's oil patch has been through some tough times recently and is now making the long climb back from the price crash that started in 2014 and led to tens of thousands of layoffs. One reason for cautious optimism is the proposed Shell-led C\$40 billion liquefied natural gas project in British Columbia. The LNG Canada project, first announced in 2011, would be one the largest construction jobs in Canadian history and also a linchpin for the country's foray into the expanding global gas market.

While a series of other LNG projects have fallen apart in recent years, some analysts believe this project is practically a done deal — that the consortium behind LNG Canada will give it final approval in the coming weeks. Canada's energy sector has a lot riding on Shell's decision. If the LNG industry fails to launch, some believe the future of natural gas in Western Canada will languish, as Canada's only customer — the U.S. — ramps up development of its own gas resources and weans itself off Canadian imports.

A thumbs-up could send a powerful signal to the industry that Canada wants investment and economic development. "It's tremendously important for our economy," said Jonathan Wright, CEO of NuVista Energy, a Calgary-based oil and gas company. But the LNG industry still faces hurdles. A number of countries with substantial gas reserves already have LNG export facilities, including the U.S., and Canada's lack of experience puts it at a disadvantage. "Canada is a painfully expensive place to do business, partly because of ponderous regulatory regime," said former TransCanada CEO Hal Kvisle.

U.S. LNG producers may need to cut prices for spot-market sales

(Bloomberg; Aug. 13) - This winter could be a bleak one for U.S. natural gas exporters as the fastest-growing buyer threatens to halt purchases amid an escalating trade war. PetroChina, a unit of state-owned China National Petroleum Corp., may suspend its buying of U.S. liquefied natural gas cargoes during the colder months, just as new LNG terminals start up. The move could force suppliers like Cheniere Energy to cut prices as they seek to lure other buyers during the heating season, when demand peaks.

While U.S. LNG companies make the bulk of their money from long-term contracts, Cheniere last winter reaped big earnings from the spot market, which saw Asian prices climb to three-year highs amid booming demand in China. The world's second-largest economy is boosting its use of gas as it cuts pollution from coal-fired plants. With China eyeing a 25 percent tariff on U.S. LNG, Cheniere and others may have no choice but to sell spot volumes at a discount, said Jason Gabelman, vice president at Cowen and Co.

The "U.S. is probably going to have more spot LNG available than it would have had otherwise if it had been selling into the Chinese market," Gabelman said. Other buyers in Asia may look to take advantage of low-cost U.S. gas. "If you're selling gas in the spot market, you need to find a new place" for cargoes that would have gone to China, said Nikos Tsafos, a senior fellow at the energy and national security program at the Center for Strategic and International Studies in Washington.

Russian gas line to China and Koreas could be unifying symbol

(Asia Times; Aug. 12) - Political solutions have been sought for decades to try to calm intra-regional tensions in Northeast Asia, but all have failed to deliver. However, a regional, trans-Korea energy initiative could lay the foundation for a unifying economic community that would have knock-on benefits for regional geopolitics, said David Kim, chairman of the World Energy Council with members from more than 90 countries. "This project is a symbol: One project can serve everyone," Kim said.

The project is a natural gas pipeline from Sakhalin Island in Russia's Far East, through China and North Korea and into South Korea. The project could create the physical skeleton of an East Asian common market, while offering incentives for North Korea to come out of the cold, Kim said. There are no major technical challenges, he said. A pipeline already runs from Sakhalin to the Russian port city of Vladivostok. From there to the demilitarized zone separating the Koreas is just 465 miles.

The concept of a trans-Korea gas pipeline, supplied by Russia, first rose to prominence about 20 years ago. But it was dismissed as "too huge," Kim said. There were more talks in 2011 between Russia's Gazprom and Korea Gas. But then, inter-Korean relations were at a nadir: A year earlier, North Korea had torpedoed a South Korean warship and shelled a border island. The project was not politically feasible. The possibilities are looking brighter as "we have better relations" between the two Koreas, Kim said. And the project is on the mind of Russian President Vladimir Putin, a strong promoter of energy exports. "Russia is eager to diversify its markets," Kim said.

Sempra cautions it's premature to forecast impacts of LNG tariff fight

(San Diego Business Journal; Aug. 12) - Sempra Energy's plans to build a U.S. liquefied natural gas export business could get bogged down in a widening U.S.-China trade war, though Sempra CEO Jeff Martin struck a cautious tone while speaking with analysts about the prospect. "At this point, it may be even premature to forecast the impacts of that," Martin said in an investor conference call last week after the company released its second-quarter financial results.

China announced Aug. 3 it would impose a 25 percent tariff on U.S. LNG if President Donald Trump follows through on his threat to order more tariffs on imported Chinese goods. "LNG is an important part of China's future," Martin said. "We certainly see that as the key fuel that will help push coal off of their grid. And frankly, the United States will always be one of the lowest-cost suppliers. We think this bodes well for the future."

Sempra's LNG exports are still more than a year away. The company expects the first production from its Cameron LNG plant in Louisiana in 2019. At completion, the three liquefaction trains will be capable of producing almost 14 million tonnes of LNG per year. Sempra also is mulling more production: expansion at Cameron to nearly 25 million tonnes; adding liquefaction and export to its 10-year-old LNG import terminal near Ensenada in Baja California; and building an export facility in Port Arthur, Texas.

Corps stops work on permit applications for 2 LNG projects in Texas

(The Brownsville Herald; Texas; Aug. 14) - The U.S. Army Corps of Engineers has notified two developers of liquefied natural gas plants at the Port of Brownsville, Texas, that their applications are no longer being reviewed because they missed deadlines for requested information. The Corps notified Annova LNG and Texas LNG that the agency had withdrawn the permit applications, though the companies could reapply at a later date after submitting the missing information.

The Corps sent a letter to Annova on May 21, requesting complete information about the gas pipeline that would supply the proposed LNG facility. The company was given 30 days to respond or have its permit withdrawn. Annova requested an extension until Nov. 2, but the delay was deemed "not acceptable" by the Corps, which then pulled Annova's permit application.

In a statement, Annova said it is in "confidential commercial negotiations with a thirdparty pipeline company for the transportation of natural gas supplies to the export facility and expect to reach a point in the negotiations by this fall when we can provide more information." Texas LNG said it is in close communication with the Corps and is finalizing its response to the agency's request for data, which it will submit soon and, in the process, reinstate its permit application.

Nova Scotia LNG developer says it is close to investment decision

(The Financial Post; Canada; Aug. 14) - While much of the Canadian oil patch is waiting for a decision on the Shell-led LNG Canada project in British Columbia, Pieridae Energy is on track to green light its \$10 billion Goldboro LNG project in Nova Scotia as soon as next month. "The next couple of weeks will be critical for the project," said Pieridae CEO Alfred Sorensen, adding that he is expecting a construction permit from Nova Scotia's government and finalized agreements with contractors by the end of August.

Sorensen said Pieridae is close to signing a deal to merge with an Alberta-based gas producer, which would give it a supply for LNG exports. Once the merger, construction permit and contractor agreements are announced, Pieridae plans to begin construction by the end of the year on the terminal 90 miles from Halifax. Even though Pieridae doesn't have the financial resources of a global major, it believes it can secure funding. Pieridae said it has a deal to sell half of the plant's output to German utility Uniper.

Pieridae has hired Morgan Stanley and SG Americas Securities as advisers to assist in securing financing. The company has loan guarantees from Germany and Italy and said it may also secure loan guarantees from other European countries. The terminal's nameplate capacity would be 10 million tonnes of LNG per year. About half of the gas would come from Alberta and the other half might come from plays in Pennsylvania. Talks continue with TransCanada to ship in gas from Alberta, Sorensen said.

Market appears to believe record U.S. gas output can meet demand

(Financial Times; London; Aug. 14) – Price volatility in U.S. natural gas futures fell to the lowest levels since the market's debut nearly 30 years ago. The event seemed improbable. Volatility usually fades when commodity stocks are ample. Yet the U.S. gas stockpile is 19.5 percent below average. When the winter starts, stocks are set to be at their lowest in more than a decade. This situation is the latest example of how shale gas production has transformed the world's largest gas market.

Conditions that put traders on edge a decade ago get shrugs. The U.S. this year is experiencing extremely hot weather. This summer looks to rank among the top five for heat, according to Commodity Weather Group. That has required more generation from

electric power plants that increasingly run on gas. Natural gas "power burn" surged to a record 37.7 billion cubic feet per day in July, according to S&P Global Platts. The strong summer use of gas follows a winter when heating demand left gas stocks depleted.

While producers will bank additional supplies by autumn, the U.S. Energy Information Administration forecasts that stocks at the end of the "injection season" in October will amount to just 3.3 trillion cubic feet — the lowest for that month since 2005. "It does create some concern that under the right conditions we could see some fireworks for prices," said Rich Redash, head of North American gas and power research at S&P Global. Regardless, record U.S. gas production has made traders less concerned about inventories. They have faith that gas wells will keep the market well supplied.

Maritime emissions rules will add to fuel costs for truckers, airlines

(Bloomberg; Aug. 15) - Every time Chuck Paar makes the over 500-mile round trip from his home in Mt. Jewett, Pennsylvania, to upstate New York, his 18-wheel truck burns about \$265 of diesel a day. That's up from as little as \$166 two years ago. The higher cost of fuel is squeezing already thin profits, and it's about to get worse. In 16 months new standards will descend on a corner of the global oil market that may disrupt fuel supplies crucial to transportation industries like trucking, airlines, railroads, and ships.

The goal of the change is to reduce sulfur emissions. The rules could boost diesel prices by 20 to 30 percent, said the International Energy Agency. That means Paar could be shelling out more than \$344 on fuel for each trip. "We bleed diesel," said Paar, 62, whose brothers, wife, and son are all truckers. Diesel accounts for around 20 percent of the operating costs at his company. His four trucks log a combined 28,000 miles a month at just 6 miles a gallon, compared with 30 mpg for many new passenger cars.

International Maritime Organization rules in 2020 will require oceangoing vessels to cut the sulfur content in fuel to 0.5 from 3.5 percent. Some ships may install scrubbers to clean emissions; some may switch to liquefied natural gas; but many will upgrade their fuel to cleaner diesel. That would spark a rush on supplies of middle distillates — diesel and jet fuel — forcing up prices and hitting truckers and airlines. "The consensus is that it will be expensive as hell," said John Butler, president of the World Shipping Council.

Gibraltar wants to lead in maritime switch to LNG-fueled ships

(Reuters; Aug. 15) - New rules on marine fuel are forcing shipowners to look at liquefied natural gas as a cleaner alternative, while ports such as Gibraltar are preparing to offer upgraded refueling facilities in the shipping industry's biggest shake-up in decades. In

2020 International Maritime Organization rules will ban ships from using fuels with a sulfur content above 0.5 percent, compared with 3.5 percent now, unless they are equipped to clean up sulfur emissions. IMO member states will levy enforcement fines.

Using LNG to power ships instead of heavy fuel oil or the lighter marine gasoil can reduce polluting emissions of nitrogen oxides and sulfur oxides by 90 to 95 percent, according to industry estimates. The British territory of Gibraltar is in the process of launching an LNG-fueled power station whose accompanying storage tanks also will be available for use to refuel cargo ships via barges. Gibraltar already supplies the most marine fuel of any port in the Mediterranean and aims to do the same with LNG.

The shipping industry is under pressure to cut its emissions of the main greenhouse gas that causes global warming — carbon dioxide — by at least 50 percent by mid-century from 2008 levels, after the IMO agreed on a target in April after years of debate. One of the challenges in using LNG to power ships has been the investment needed to build the required refueling facilities. In addition, commercial vessels powered by LNG cost around \$5 million more than regular ships.

U.S. oil companies hit by higher operating costs

(Wall Street Journal; Aug. 12) – U.S. oil companies — primed to reap the benefits of rising prices after years of wringing more from wells for less — are seeing profits erode in the face of rising costs. Those challenges make balancing growth objectives and demands for fiscal restraint increasingly difficult. If they continue to stumble, the result could be higher capital costs to finance the U.S. energy boom or slower growth.

Two-thirds of U.S. oil producers failed to live within their means in the second quarter, even as oil rose above \$70 a barrel. Collectively, 50 major U.S. oil companies reported in their second-quarter results that they have spent \$2 billion more than they took in, according to an analysis of free cash flow by FactSet. As oil prices have risen, profits "have improved, but they're not there yet in terms of making money," said Todd Heltman, a senior energy analyst at investment firm Neuberger Berman Group.

Pioneer Natural Resources, one of the biggest operators in the Permian Basin, told investors a year ago it expected to largely make up for rising costs with "efficiency gains" such as producing more from each well. Last week Pioneer reversed course and raised its annual spending forecast roughly 15 percent to produce about the same amount of oil. "We've had a more significant increase-in-cost issue than we would have assumed," Pioneer CEO Tim Dove said. The drilling frenzy has increased demand for materials like sand and water that are used in hydraulic fracturing, driving up prices.