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Daily Environment Report

Afternoon Briefing - Your Preview of Today's News

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Confidential Business Data Compounds Some Chemical Cleanups

Posted June 30, 2017, 10:15 A.M. ET

By Pat Rizzuto

Federal agencies are working to help state health and environmental regulators better understand which of a particular class of chemicals are contaminating groundwater supplies and other natural resources.

They want to figure out how to prevent future contamination from what are known as poly- and perfluorinated chemicals. These refer to compounds that make other chemicals—or the materials they coat—heat, stick and stain resistant.

One challenge: the precise chemistry of some of these substances is considered confidential business information, making it difficult to come up with a mitigation strategy, Linda Birnbaum, director of the National Institute of Environmental Health Sciences and the National Toxicology Program, said during a June 29 meeting of NTP's Board of Scientific Counselors.

Some of these substances are toxic, can persist in the environment for long periods of time, and can even potentially accumulate in various organisms that come into contact with them, according to information from the Organization for Economic Cooperation and Development.

Perfluorinated chemicals are used in a variety of household products, ranging from non-stick cookware to stain-resistant carpets, according to the National Institute of Environmental Health Sciences.

Contamination is a costly issue for the U.S. military due to the use of a foam containing perfluorinated chemicals to fight petroleum fires. The Air Force needs to inspect nearly 200 bases for potential contamination, while the Navy estimates it could face billions in cleanup costs.

3,000 Chemicals

The most recognized perfluorinated chemicals, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), are no longer made in the U.S. However, similar substitutes for both chemicals are being made, according to Birnbaum.

Scientists have detected some 3,000 variations of poly- and perfluorinated chemicals in drinking water, she said.

For example, the North Carolina Department of Environmental Quality is working with the state's Department of Health and Human Services to investigate the Chemours Co.'s discharge of GenX, a PFOA substitute, into the lower Cape Fear River.

These agencies and those in other states face challenges in figuring out the best way to address the substitutes because confidential business information protections prevent agencies from knowing exactly what chemicals they are dealing with, Birnbaum said.

Seemingly small changes to a substance's chemistry can alter the technique for removing them from drinking water, according to Birnbaum.

For example, she said, long-chain molecules, such as PFOA and PFOS, can be removed from drinking water with carbon filters, but many shorter chained substitutes can't.

The National Institute of Environmental Health Sciences, and the National Toxicology Program will analyze a subset of the poly- and perfluorinated chemicals to help scientists and agencies understand what's getting into the environment, Birnbaum said. The precise number of chemicals that will be analyzed has yet to be determined, she told Bloomberg BNA by email.

The NIEHS and National Toxicology Program are working with other agencies to address concerns about these types of chemicals, Birnbaum told the advisory board.

Base Closure Implications

For example, the Air Force already has stopped using a perfluorinated-based petroleum fire fighting foam, Aqueous Film Forming Foam, for training exercises, according to information that military branch provided Bloomberg BNA.

The Air Force no longer uses the foam unless it is warranted by an emergency or is in a contained environment certified by a civil engineer's environmental representative at the base where the chemical would be used, an Air Force spokeswoman told Bloomberg BNA June 29.

The Air Force has spent $152.5 million investigating and mitigating sites for PFOS and PFOA contamination, according to a fact sheet it updated on June 20. Further site inspections are needed at 190 bases, the fact sheet said.

Navy Defense Base Closure and Realignment, or BRAC, officials have said the cleanup of PFOS and PFOA at both active and closed installations could cost billions of dollars, according to a Government Accountability Office report released in January.

Wind Industry Tacks as Trump Shifts the Political Climate

Posted June 30, 2017, 10:12 A.M. ET

By Ari Natter

Three days after Energy Secretary Rick Perry directed his staff to find ways to give a boost to coal and nuclear power, the rival wind industry kicked its lobbying response into action.

The American Wind Energy Association would tap allies in Congress willing to weigh in with Perry and buy advertisements on “news channels closely followed by the Trump administration,” according to a memo its leader sent to board members. During the Obama administration it had touted its role in addressing climate change, but now it would emphasize an economic message, something sure to resonate with President Donald Trump.

“The wind industry drives over 100,000 American jobs, more than coal, nuclear, or hydropower electricity generation,” Chief Executive Officer Tom Kiernan wrote in the eight-page memo on April 17. The memo was provided to Bloomberg News by a competing lobbyist and confirmed by AWEA.

Once a darling of federal policy makers during the tenure of President Barack Obama, wind energy has been buffeted under Trump, who frequently complains that wind turbines kill eagles and aren’t a reliable power source. In the administration’s efforts to help coal miners, oil drillers and nuclear-plant operators, wind is the variable, subsidized power that is making life difficult for those so-called baseload electricity producers.

“I don’t want to just hope the wind blows to light up your homes and your factory—as the birds fall to the ground,” Trump said this month in Iowa, a state that gets more than a third of its electricity from wind power.

Republican Lobbyists

Kiernan has taken to fact-checking Trump’s comments on Twitter. And the group has hired Republican lobbyists this year to help it gain a foothold in a very different Washington.

Last month, AWEA hired Amy Farrell, a former official in the administration of President George W. Bush and natural gas lobbyist, as its senior vice president for government and public affairs. It also hired William Myers, Bush’s former Interior Department solicitor, as a lobbyist that same month.

The Energy Department study of the electric grid, however, poses the most tangible risk to wind power, which more than doubled in capacity during the Obama administration to more than 82,000 megawatts. A memo from Perry ordering the study posited that the reliability of the power grid was at risk, and listed factors such as regulations that could be forcing the “premature retirement of baseload power plants,” which refers to mostly coal and nuclear facilities. While Perry didn’t mention wind, he did discuss tax subsidies, which wind producers receive, and highlights a preference for on-site fuel, which wind doesn’t have.

“Political driven policies, driven primarily by a hostility to coal, threatens the reliability and the stability of the greatest electrical grid in the world,” Perry said this week. “Over the last few years, grid experts have expressed concern about the erosion of critical baseload resources, specifically how it is dispatched and compensated.“

Publicly the wind industry says it’s doing just fine under Trump.

Tom Vinson, vice president of federal regulatory affairs for the group, which counts subsidiaries of wind turbine makers such as Vestas Wind Systems A/S and Siemens AG on its board of directors, dismissed the memo as “old news” and said wind doesn’t face overwhelming opposition as it supports the president's quest for "energy dominance." And it creates jobs, he added.

Perry, who had mostly praised coal, natural gas and nuclear power since becoming secretary, went out of his way to praise wind and solar this week.

"We are going to ensure that renewable energy finds its way to the grid and that the tremendous resources presented by the wind, the sun and hydro are efficiently captured and then delivered," he said.

When he was governor of Texas, Perry said in a blog post this week, that state took a lead in pursuing wind development, and it now stands as the top wind producing state in the U.S.

That shift in tone may, in part, represent that AWEA's efforts are paying dividends.

Soon after the the wind association started its lobbying campaign, wind-friendly lawmakers such as Sen. Charles Grassley (R-Iowa) sent letters with pointed questions about the study. Environmental groups filed Freedom of Information Act requests about the study and what prompted it. The industry group got in to brief administration officials on the benefits of the power source, Vinson said.

"We hope the Department of Energy will be taking this substantial body of existing research into account when they issue their study," Evan Vaughan, a spokesman for the trade group, said in an email.

And in another small victory for the industry, Trump announced June 28 that he would nominate Richard Glick, a Democratic Senate staff member and former wind lobbyist, to the Federal Energy Regulatory Commission.

While representatives of the wind industry continue to exude confidence, "I think privately they are a little concerned," said Paul Bledsoe, a former climate adviser in the Clinton administration. "It seems as if the administration is pursuing an ideological agenda against renewables based on political animus towards the Obama administration."

"They are anxious about some unexpected assault, but they are not quite sure what to prepare for," he added.

German Court Ruling for Daimler Bucks Trend Against Diesel

Posted June 30, 2017, 01:57 P.M. ET

By Jabeen Bhatti

German auto giant Daimler didn't misrepresent the effectiveness of pollution control technology in one of its Mercedes diesel vehicles, the Regional Court of Stuttgart ruled June 29.

Berlin-based environmental nonprofit Deutsche Umwelthilfe (DUH) alleged in its Februrary 2016 lawsuit that Daimler overstated emissions efficiency on its Mercedes C-Class BlueTEC 220 CDi model in advertisements. According to the organization, the standard exhaust purification system on the car didn't reduce nitrogen oxide emissions by up to 90 percent when compared to diesel engines not outfitted with the software.

But the court dismissed that claim, ruling in favor of Daimler's argument that context of the advertisement was a comparison between diesel vehicles in its own fleet, rather than all diesel vehicles on the market.

DUH officials told Bloomberg BNA they will consider an appeal of the decision once the court officially releases it, which was not available as of June 30.

Test Results

In its claim, DUH cited an independent study conducted by the nonprofit Netherlands Organization for Applied Scientific Research (TNO) to dispute Daimler's efficiency claim.

TNO laboratory tests verified figures the automaker cited in its advertisements. But road tests TNO conducted during days when temperatures ranged between 7 and 10 degrees Celsius (45 to 50 degrees Fahrenheit) yielded nitrogen oxide emissions that were about 28 times higher than the acceptable limit of 0.08 grams per kilometer for Euro 6 class vehicles, according DUH. The Euro 6 standard is currently the most stringent emissions class for new vehicles in Europe.

Still, the court found no grounds for ruling Daimler and its subsidiary Mercedes misrepresented the efficacy of its technology because both the government-funded and private laboratory tests affirmed the advertisement's claim, as well as the context of the claim—a Mercedes-to-Mercedes comparison, rather than a comparison between Mercedes' vehicles and all other diesel engine vehicles, Juergen Resch, chief executive officer of Deutsche Umwelthilfe, told Bloomberg BNA.

"We completely reject that reasoning," he said. "Daimler is making itself very small," he added, referring to the defendant's argument.

A Daimler spokeswoman told Bloomberg BNA that "we welcome the fact that the court confirmed our legal position."

Diesel Drop

The court's ruling bucks the anti-diesel trend currently shaking the auto industry in Germany.

In March, the Bavarian High Administrative Court upheld a 2012 decision instructing authorities in Munich to begin drafting plans to institute a partial driving ban on diesel vehicles due to a DUH suit. Meanwhile in Duesseldorf, regional courts ordered city officials to begin drafting similar regulations in September 2016. In Stuttgart, partial driving bans of diesel engines will begin taking effect in 2018 following a lawsuit by DUH.

Despite DUH's recent loss in its efforts against Daimler, the impact of the numerous cases is making the car industry and consumers nervous, according to Ferdinand Dudenhoeffer, director of the Center for Automotive Research at the University of Duisberg-Essen.

"This current case of Deutsche Umwelthilfe against Daimler is just one mosaic stone in the greater diesel-gate trend," Dudenhoeffer told Bloomberg BNA, referring to the emissions-cheating scandal involving Volkswagen that began in 2015.

Diesel engine vehicles comprise one-third of all private vehicles on German roads, but their market share could easily drop if the courts continue to issue anti-diesel rulings, Dudenhoeffer said.

"Because of these cases, there's a lot of insecurity among consumers to buy new diesel vehicles," he said.

Rebirth of Canadian Oil Sands From Fire Stymied by Market Slump

Posted June 30, 2017, 10:14 A.M. ET

By Robert Tuttle

In the heart of Canada's biggest oil province, life is slowly returning to normal in Fort McMurray, Alberta. After a fire last year destroyed entire neighborhoods in the town and halted about a million barrels of daily production, green leaves are beginning to bud on charred trees and new construction is replacing homes that were burned to the ground.

But hopes for a complete rebirth are being undermined by a global oil slump. It's become less attractive to invest in the region, where tar-like reserves are among the most expensive and difficult in the world to extract. After 17 years of uninterrupted expansion around Fort McMurray -- which drove an 86 percent increase in the nation's output -- no new projects or expansions will go into operation next year, an analysis of company spending plans shows.

Producers including Royal Dutch Shell Plc and Koch Industries Inc. have shelved or put on hold billions of dollars of projects since crude fell from more than $100 a barrel in 2014 to as low as $26 last year. The economics of the business remained lousy in 2017. That's because sticky oil sands in Alberta have to be mined and then converted into liquid using a costly conversion process or loosened with steam and sucked out of wells. To justify expanding existing projects or starting new ones, crude needs to fetch at least $50.

"We will not see a pickup of significant work for two to three years," once existing expansions are completed in 2017, Jay Bueckert, regional director of the Christian Labor Association of Canada, a union representing oil-sands workers, said in an interview at his office in Fort McMurray.

The investment slowdown is a double blow for the town. It's still recovering from the May 2016 blaze that swept through neighborhoods such as Beacon Hill and Timberlea, destroying about 2,000 homes and forcing shutdowns of oil production for almost a month. The damage will wind up costing the government and insurers more than C$5 billion ($3.8 billion), according to the Conference Board of Canada.

As many as 5,000 people haven't returned, according to municipal population figures. While home sales were up in the first five months of the year, prices continued a decline that started after the oil-price slump began three years ago, according to the Fort McMurray Real Estate Board.

'People Left'

"A lot of people just sold and left," Sam Keane, a 27 year-old scaffolder from Ireland, said as he stood beside a rebuilt home he had just bought from a previous resident of a neighborhood that burned down.

As the community rebuilds, international companies are pulling back. Since March, Shell, ConocoPhillips and Marathon Oil Corp. have agreed to sell oil-sands assets to domestic producers Canadian Natural Resources Ltd. and Cenovus Energy Inc.Exxon Mobil Corp., majority owner of

Imperial Oil Ltd., slashed billions from its Canadian reserves.

While prices have recovered from last year's low, they're down 21 percent this year to less than $45 a barrel. That's too cheap to justify most projects that require billions of dollars in up-front investment and years of development, said Kevin Birn, a director at IHS Energy in Calgary.

Fort McMurray has vast reserves. Only Saudi Arabia and Venezuela have bigger crude deposits. The town transformed from a remote trading outpost to an energy center in the late 1960s, when what is now Suncor Energy Inc. began extracting the viscous hydrocarbons from the soil under the dense boreal forests of remote Northern Alberta.

Early Growth

As crude prices surged after the turn of the millennium, concerns about oil scarcity drew more than C$200 billion of investment from the U.S., Asia and Europe. As money poured in, so did people from around the world seeking steady jobs and a higher standard of living. With the population growing 4 percent a year, the municipal government struggled to build infrastructure fast enough. Traffic jams lasting hours would tie up oil sands workers on the one road into the oil-sands mines to the north.

The boom ended abruptly in late 2014 with the surge in U.S. shale production that sent prices plunging. The number of oil-sands-related engineering and construction jobs will shrink by 9,300, or 30 percent, by 2023 from "already diminished employment in 2016," according to a report by BuildForce Canada, a trade organization.

"We always talk about diversification and it's something that's really hard to do when we are in the heart of the oil sands," said Alexis Foster, executive director of the Fort McMurray Chamber of Commerce.

Limited Expansion

In the past year, MEG Energy Corp., Cenovus and Canadian Natural announced plans to expand operations later in the decade. But those expansions are to thermal oil sands projects in an area located about two hours south of Fort McMurray. New projects near Fort McMurray, such as Suncor's newly proposed Lewis or Imperial Oil's Aspen, have yet to be sanctioned.

With investment in new oil sands winding down, Fort McMurray residents are left with jobs maintaining and repairing existing operations. Sustaining capital and maintenance work will rise "moderately" over the next decade and become an "increasingly important source of employment," according to BuildForce Canada.

As Fort McMurray contracts, expansions are occurring elsewhere in Canada. In the western Alberta town of Grande Prarie, drilling in the Montney shale formation was up an annual 80 percent early this year.

But Fort McMurray will remain the dominant oil town in Canada for now, Birn said. The provincial government said in its most recent budget that the reconstruction of the town after the fire and plans for increased oil production will add 1 percent to the gross domestic product this year.

There are signs of improvement: Unemployment is down from last year, Foster says construction work is expected to expand, and the median single-family home price in April rose from a year earlier.

Some people are moving back because they “saw opportunities to purchase,” said Andrew Weir, president of the Fort McMurray Real Estate Board. They “don’t feel like the sky is falling anymore,” he said.

Canada Floats New Environmental Review Rules for Pipelines

Posted June 30, 2017, 10:00 A.M. ET

By Josh Wingrove

Canada is proposing consolidating environmental reviews under a single agency while adding an approval step for proponents of pipelines and other major projects—in what it said is a bid to both strengthen and clarify environmental rules.

The proposal would add a requirement for an “early engagement” phase for projects that the government said would lead to “clear guidance” for industry on how a full assessment will proceed and how long it will take. The move is aimed at industry frustrations that Canada’s existing environmental approval process is already a maze—unclear, time-consuming, legally fraught, and under the watch of multiple agencies.

The proposal, contained in a discussion paper published June 29, lays out a framework that comes after a review of environmental assessment rules; fisheries laws; and the National Energy Board, which oversees pipelines in the country with the world’s third-largest proven oil reserves. A range of projects is subject to environmental assessments. The changes would affect only new ones, as Prime Minister Justin Trudeau’s government said existing proposals such as TransCanada Corp.’s Energy East pipeline won’t be sent back to square one.

The proposal raises the prospect of greater “cost recovery” from the oil and gas industry, while also focusing on ensuring a “single window” agency for federal environmental approvals and permitting while expanding the power of people to intervene in the process and making more data publicly available.

Court Challenges

Major energy projects in Canada have regularly run into a tangle of court challenges, evolving government policy, and environmental protests, raising doubts about their fate. Trudeau introduced interim rules early last year before approving a pair of pipelines while rejecting a third—which his predecessor approved before being blocked by the courts.

The discussion paper proposes expanding the review of projects to consider a broader range of factors, including economic benefit, which is presently considered in a final Cabinet decision on any major proposal. The new assessment system will consider “both positive and negative impacts of a project,” the discussion paper said.

So far, the paper has won positive reviews from energy-industry groups. Canadian Energy Pipeline Association Chief Executive Officer Chris Bloomer said June 29 that while his organization is taking time to fully review the paper, it supports the principles laid out in the document and is “encouraged” by its content. Canadian Association of Petroleum Producers Executive Vice President Terry Abel said his group backs the proposal as well.

"They've done a really good job of identifying opportunities where there could be improvements, and it's reflective of the broad range of input they've heard," Abel said in an interview.

Cumulative Effect

The proposed system will pay greater attention to so-called cumulative effect, or the total impact over time of a single project, and others near it, on the environment. That measure in particular could ripple through regions with high levels of industrial development, such as Alberta's oil sands, the heart of the country's energy sector.

The federal government is proposing to expand the ability of opponents and proponents to weigh in on a project by eliminating a test of which participants were given "standing," by the NEB while also allocating more "participant funding," the document said. It also commits to a process that "advances the government's commitment" to the United Nations Declaration on the Rights of Indigenous Peoples, though stops short of fully committing to the declaration. The U.N. document places an emphasis on "free, prior, and informed consent" of indigenous peoples, though Trudeau's government argued that doesn't amount to a veto on energy projects.

The scale of environment assessments will be "aligned" with the scale of a project and its impacts, the discussion paper said. The report commits both to peer-reviewed science and incorporating indigenous knowledge in reviews. The proposal also pledged "greater participation of indigenous peoples on assessment boards and review panels and in regulatory processes."

The NEB regulator will remain in Calgary, but board members and hearing commissioners will no longer have to live there, the paper said.

The paper comes after a review launched a year ago. The measures are classified as proposals only. Final changes to the environmental assessment and regulatory system are due this fall.

South Korea to Study, Plan for Climate Impacts on Infrastructure

Posted June 30, 2017, 9:21 A.M. ET

By Elaine Ramirez

Eighteen South Korean public and private institutions have agreed to assess the effects of climate change on infrastructure and devise ways to prevent further damage.

Through a convention facilitated by South Korea's Ministry of Environment and Korea Adaptation Center for Climate Change, 13 public institutions and five companies—Kumho Buslines; Samsung Engineering; construction company Halla OMS; and logistics companies CJ Korea Express and Hyundai Glovis—will work with the government to evaluate and diagnose climate change-related risks to infrastructure to develop countermeasures, the Ministry of Environment said.

The project also will identify facilities that are vulnerable to the effects of climate change and help public institutions set up adaptive measures to ensure national safety and to minimize economic losses, according to the environment ministry.

“This convention is particularly meaningful in that it promises voluntary efforts by public authorities and industries to provide a pre-emptive response to climate change risks,” the Ministry of Environment said in a June 27 statement.

“Since we want to reduce CO2 emissions as a long-term goal, we think the plan of the ministry is proper, and we can focus on the goal not only for our company but also for Korea to help with the development of climate change improvement,” Jin Hartmann, spokesman for Samsung Engineering, told Bloomberg BNA.

The ministry and the Korea Adaptation Center for Climate Change will provide risk assessment tools, including those to analyze the impacts on facilities of climate situations such as extreme temperatures and heavy rain. Companies will then prioritize items and devise countermeasures with mid- and long-term objectives and action plans to minimize climate impacts.

Jung Seon-hee, research specialist at the (KACCC), said, “In addition to promoting governmentwide measures to adapt to climate change, South Korea is promoting climate change adaptation via infrastructure institutions. However, [this initiative] is still in its infancy, so additional policy support and investment is needed to improve effectiveness.”

Project planning started before Korean President Moon Jae-in took office last month, and is expected to be more actively pursued during his governance, she added.

Establishing Adaptive Measures

Damage caused by climate change-related natural disasters affect mostly social infrastructure such as power, railways, and roads, and have a great social and economic impact, the ministry said. The damage to public facilities in 2013, amounting to nearly 150 billion won ($131.4 million), made up 87 percent of all natural disaster impacts during that year, the ministry said. Restoration of public facilities such as roads, rivers and harbors cost 8.9 trillion won ($7.8 billion) between 2004 and 2013.

In response, the government in 2016 launched a reporting system for public institutions to evaluate and diagnose the climate change-related risks they faced.

The Ministry of Environment said it will help the public and private sectors scientifically predict and evaluate the risk factors of climate change and establish effective adaptive measures. The institution will then decide on voluntary climate change adaptation measures and incorporate them into management plans and strategies.

Sharing Know-How

Samsung Engineering has carried out business partnerships with large and midsize companies to share carbon management know-how and energy-saving methods with subcontractors, according to company spokesman Lee Ho-jae. In 2016, the company concluded an agreement with the Ministry of Environment to reduce dust emissions.

Unforeseen natural disasters caused by climate change could have a profound impact on Samsung’s project performance, Lee said, adding that the company plans to explore ways to contribute to the climate change action plan in the overall process of plant construction.

“[Addressing] climate change requires a national approach. At the same time, voluntary effort from individual companies is needed,” Lee told Bloomberg BNA. “We hope the recognition of climate change spreads throughout the industry and many companies can participate."

The government also will evaluate other public agencies' adaptation measures for climate change and determine how to reflect them nationwide.

The 13 public institutions participating in the agreement include expressway, port and airport authorities, and coal, gas and heating companies.

"We anticipate that it will become a new paradigm of management strategy … to grasp the effects of climate change on sales and tangible assets," said Kumho Buslines spokesman Oh Kil-joong.

South Korea Is Very, Very Interested in America's Natural Gas

Posted June 30, 2017, 10:32 A.M. ET

By Ryan Collins

One thing became clear on the fourth day of the White House's Energy Week: South Korea is really, really into U.S. natural gas.

In less than 24 hours, South Korea's energy companies had announced four partnerships with U.S. companies to explore opportunities in the U.S. natural gas business. Korea Gas Corp., the state-owned gas supplier, said it will look into potential investments in liquefied natural gas projects in Alaska, Texas and Louisiana. SK Group signed an agreement with General Electric Co. and Continental Resources Inc. to pursue shale gas developments.

It makes sense. South Korea is one of the world's biggest importers of LNG and has bought eight cargoes of U.S. gas from Cheniere Energy Inc.'s Sabine Pass terminal in Louisiana. While Sabine Pass is the only one sending shale gas abroad, dozens of terminals have been proposed along U.S. coasts to do the same. The exports have put the U.S. on a path to becoming a net gas exporter for the first time in decades.

President Donald Trump noted during a June 29 Energy Week event in Washington that South Korea leaders were visiting the White House. He said they would be "talking about them buying energy from the United States of America. I'm sure they would love to do it."

U.S. LNG may in fact play a big role in furthering South Korea's energy policies. After the election of Moon Jae-in as president in May, the country is looking to transition away from coal and nuclear power in favor of cleaner natural gas-fired electricity generation. And buying more U.S. fuel could allow the country to smooth geopolitical disputes over unbalanced trade, Korea Gas Chief Executive Officer Lee Seung-Hoon said Sunday at the Sabine Pass terminal, where the company celebrated the start of an LNG contract with Cheniere.

"All of these projects are looking to find more long-term offtake in order to get the financial support they need to move forward," said Anastacia Dialynas, analyst at Bloomberg New Energy Finance, in a phone interview June 29. South Korea "might even be pitting them against each other" by exploring several projects to "see who offers the best terms," she said.

The Port Arthur, Texas, LNG export terminal is being developed by Sempra Energy and Woodside Petroleum Ltd., and Energy Transfer Equity LLC and Royal Dutch Shell Plc are planning the Lake Charles, Louisiana, one. The Alaska LNG export project is being proposed by the state's Alaska

Gasline Development Corp.

Spot LNG prices in Singapore traded at about $5.244 per million British thermal units Thursday, according to a Singapore Exchange Ltd. assessment. That's down from more than $14 in October 2014 as production capacity rises and oil prices have tumbled.