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Japanese LNG engineers JGC and Chiyoda rethink strategies

Liquefaction plant builders around the world feel oil price pressures
Our Asia-Pacific editor

Japanese liquefied natural gas LNG engineers JGC Corp and Chiyoda Corp have been hurt by the global downturn in energy prices that has led to profit tumbles and strategy rethinks.

JGC, the company that helped build the processing Trains in Qatar and is working on projects around the world including the US, is overhauling its strategy to better compete with its peers and part of the plan is to set up a European base.

Liquefaction

JGC, based in Yokohama, has competence in liquefaction plant building and has also constructed a third of Japan's import and re-gasification capacity.

Its "new horizon" programme is a medium-term plan to advance its business and compete better for LNG and energy contracts and boost earnings.

JGC said that in addition to competing with its main rivals it also wants to cooperate more with them.

"JGC intends to actively promote a wide range of collabora-



JGC and Chiyoda are working on Australian Ichthys LNG

tions with Bechtel, Fluor, KBR, Technip and the South Korean firms, GS Engineering and Construction and SK E&C, and domestic engineering companies that have joint-venture experience for EPC implementation," it said.

The Japanese company also intends to create a European site for global operations with three main centres.

"JGC considers it needs an engineering site in Europe to address markets in the Middle East, North Africa and Russia as it promotes the market expansion strategy," it stated.

JGC also aims to compete in terms of sales and earnings. It put the sales levels of the top global engineering contractors as: Bechtel at 4 trillion yen (\$36 billion), Fluor at 2 trillion yen, and Technip, CB&I of the US and Italy's Saipem each at 1.5 trillion yen.

"JGC must pursue further expansion of sales, profits and other business values in order to genuinely put itself on the same footing as these firms," it said.

The new JGC plan calls for 1 trillion yen (\$9Bln) in annual sales and 60 billion yen in net profit from fiscal 2020.

For its part Chiyoda, working on projects in Australia, Mozambique and the US, has just posted a net operating income drop of more than 25 percent.

"The operating income was lower than the forecast due to the increase in construction costs to meet the delivery schedule for some petroleum-related projects, as well as the worsening performance of overseas group companies including one in England and the prolonged tumble in oil prices," Chiyoda stated.

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Japanese government passes report on new planned LNG strategy through G7 meeting

Our Asia-Pacific editor

The Japanese government has developed a new strategy for liquefied natural gas in response to the changes in the market, including the start of exports from the United States and the full liberalization of Japan's domestic power market.

The strategy was drawn up by Japan's powerful Ministry of Economy, Trade and Industry. A presentation of the LNG strategy was made in the form of report made to the recent G7 meeting in Kitakyushu City in Japan ahead of the G7 summit to be held on May 26-27, 2016.

Attendance

The LNG statement was heard by the G7 energy ministers comprising those from Japan, the US, Canada, Germany, France, the UK and Italy.

It noted that Japan accounts for around one-third of total global LNG demand and outlined "challenges and countermeasures" towards the creation of a flexible LNG market and an LNG trading



Energy ministers in Kitakyushu in Japan ahead of G7 summit

hub in Japan. "Japan has regularly been procuring LNG through the pricing system linked to crude oil prices under long-term contracts, and a surge in the procurement costs has presented a significant challenge since the Great East Japan Earthquake," the report said.

"The US and European countries are adopting a pricing system which reflects the actual supply and demand of natural gas and the impact of their pricing system is increasing.

"In addition, while a growth in global LNG demand and a growing amount of LNG exports from the US, Australia and other countries is expected, Japan will face addi-

tional changes to its LNG procurement structure due to the liberalization of domestic electricity and gas markets.

"Such changes are considered good opportunities to realize a more flexible global LNG market. To this end, Japan is expected to improve the environment in which LNG is stably procured at a reasonable price, thereby leading to the stabilization of the LNG supply-demand balance and the suppression and stabilization of the price in Japan," it stated.

The report also explained the form of LNG trade Japan should pursue.

"Based on the recent fundamental changes in the LNG mar-

ket, Japan will attempt to establish a highly fluid LNG market and become an LNG trading and price formation hub sometime in the first half of the 2020s," the Japanese said.

The hub will have three fundamental principles: enhancement of tradability, elimination of destination clauses and revising approaches to public financing in relation to LNG projects.

Japan said it would also encourage new demand for gas and LNG domestically and internationally in the form of LNG-fueled trucks and the introduction of more LNG-related infrastructure into the Asian region.

Other plans in the Japanese strategy include "engaging in initiatives for facilitating increasingly efficient operation of LNG tankers" and the creation of "a price discovery mechanism" reflecting supply and demand.

The Japanese government would also provide "necessary support for the efforts related to forward transactions of LNG at the Tokyo Commodity Exchange.

LNG equipment maker Air Products off-loads unit to German company for \$3.8Bln in cash

Air Products of the US, the leading maker of liquefied natural gas processing equipment, has sold its Performance Materials Division (PMD) to Germany's Evonik Industries AG, a specialty chemicals and materials company, for \$3.8 billion in cash.

The Lehigh Valley, Pennsylvania-based company said the sale of PMD to the German firm was expected to be completed before the end of 2016 and was subject to regulatory approvals.

"Under the terms of the agreement, operational facilities, supplier contracts, labs, contracts, customers, and employees and certain legal entities associated with PMD would transfer to

Evonik," Air Products said.

It was also stated that Evonik, whose headquarters are in Essen, Germany, intended to continue to run PMD from its current location in Allentown, Pennsylvania.

Air Products additionally intends to spin-off its Electronic Materials Division (EMD) to shareholders as a separate public company, called Versum Materials, by the end of September 2016.

Much of the worldwide supply of LNG is produced with technology supplied by Air Products.

The company's portfolio of equipment is currently operating in over 100 LNG liquefaction Trains around the world.

The sale of its unit to Evonik is

part of its strategic five-point plan, which includes focusing on industrial gases and off-loading non-core businesses.

"The sale of PMD is consistent with the long-term strategy for Air Products that we announced in September 2014," said Seifi Ghasemi, Chairman, President and Chief Executive of Air Products.

"I am very pleased that PMD has a great future ahead of it as a core business of a company which is even larger than Air Products," Ghasemi stated.

"As for the balance of our Materials Technologies segment, I am also very excited about the future of EMD, which we currently intend to spin-off as a new, world-class

public company named Versum Materials.

"Guillermo Novo will be the CEO of the new company, and I will be non-executive chairman of Versum Materials while maintaining my current roles at Air Products," Ghasemi explained.

"As a result of these moves, Air Products will be in an even stronger position to take advantage of the exciting investment opportunities to grow our core Industrial Gases business," the CEO added.

The PMD business sold to the German company generated more than \$1 billion in revenue over the past 12 months.

US firm raises more funds for Louisiana LNG plants

Venture Global LNG, a Washington DC-based company, said it raised additional equity investments for the two liquefaction and LNG export plants it is developing in Louisiana, one at Plaquemines on the banks of the Mississippi River and a second near the Calcasieu Ship Channel.

The VG Plaquemines project will be located on 630 acres near river mile-marker 55 on the west side of the Mississippi, 30 miles south of New Orleans.

The Mississippi river project will produce 20 million tonnes per annum of LNG and will include 20 small-scale liquefaction Trains, four LNG storage tanks and three marine loading berths for ocean-going vessels.

VG is also planning to produce 10 MTPA of LNG at its Calcasieu Pass facility to be developed on a 1,000-acre site located at the intersection of the Calcasieu Ship Channel and the Gulf of Mexico.

The VG development company was founded by a banker and a lawyer.

The two are Michael Sabel, an equity fund manager and venture capitalist, and Robert Pender, a former partner at Hogan Lovells, a global law firm.

Both are now joint chief executives and co-chairmen of the VG LNG company.

VG said it raised additional capital of \$55 million, bringing the total funding to date to more than \$265M.

The proceeds will fund VG LNG development activities for both of its proposed export facilities. ■

Shell maintains leadership role in LNG marine fuel in US Gulf of Mexico

Our North America editor

Royal Dutch Shell has taken delivery of a third liquefied natural gas-powered Offshore Supply Vessel (OSV) at Port Fourchon on the Louisiana Gulf Coast.

The "Harvey Liberty", chartered from specialist company Harvey Gulf International Marine, will join its sister ships, the "Harvey Energy" and "Harvey Power".

Support role

Shell Offshore said the three LNG-powered vessels will refuel from Harvey Gulf's new LNG bunkering facility at Port Fourchon, where they will support Shell's offshore platforms in the Gulf of Mexico, transporting supplies, equipment and drilling fluids.

The latest LNG vessel was built by the Gulf Coast Shipyard in the US state of Mississippi.

"The 'Harvey Liberty' highlights our efforts to grow LNG as a fuel in the transport sector, and is a welcome addition to our portfolio," said Tahir Faruqi, Shell's General



Shell's 'Harvey Liberty' charter can refuel at Port Fourchon

Manager LNG North America.

Harvey Gulf Marine's Chief Executive and Chairman, Shane Guidry, added: "Harvey Gulf is excited to share these historical maritime events with Shell. This represents another significant step in the path for Harvey Gulf to establish itself as a leader in utilizing LNG as a marine fuel."

The "Harvey Liberty" and its sister ships run on 99 percent LNG and can operate for up to 15 days before re-fueling.

The LNG-powered vessels provide vessel owners with an alternative fuel to meet sulphur and nitrogen oxide emissions regula-

tions in the North American Emission Control Area.

The "Harvey Liberty" is 302-feet long and operates on three dual-fuel engines supplied by Finland's Wärtsilä.

Shell is one of the largest global transporters of LNG on the oceans, with Shell Shipping & Maritime managing more than 40 LNG carriers.

In the Netherlands, the Anglo-Dutch company is also planning to deploy a specialized LNG bunkering vessel in the port of Rotterdam with a capacity of around 6,500 cubic metres. ■

Regulator gives Cameron LNG in Louisiana permit for two more trains

The US Federal Energy Regulatory Commission has authorized Cameron LNG, being developed by California-based Sempra Energy and Japanese and French investors, to build two additional liquefaction Trains and five in total for almost 25 million tonnes per annum in production.

Sempra's existing LNG import terminal is being transformed into a liquefaction plant on the shore of the Calcasieu Ship Channel at Hackberry in Cameron Parish, Louisiana.

Sempra is developing the Cameron plant with Japanese partners Mitsui & Co. and Mitsubishi Corp. and French utility and LNG player Engie, the former GDF-Suez.

The Hackberry liquefaction plant is being built by LNG engineering companies CB&I of the US

and Japan's Chiyoda Corp. The new FERC order will allow Sempra to build what it will call Train 4 and Train 5 as well as a fifth LNG tank with 160,000 cubic metres of storage.

"The design of these Trains is identical to the design of the three other trains currently being constructed at the LNG terminal.

"Cameron also proposes to construct and operate a condensate product storage tank and associated utilities and infrastructure consisting of two new boil-off gas compressors to be used during the liquefaction process, three 2.5-megawatt diesel engine backup generators, a diesel storage tank and a new demineralized water system," the FERC authorization noted.

The proposed expansion would

allow Cameron to export an additional 515 billion cubic feet per annum of domestically-produced natural gas or the exact equivalent of 9.97 MTPA.

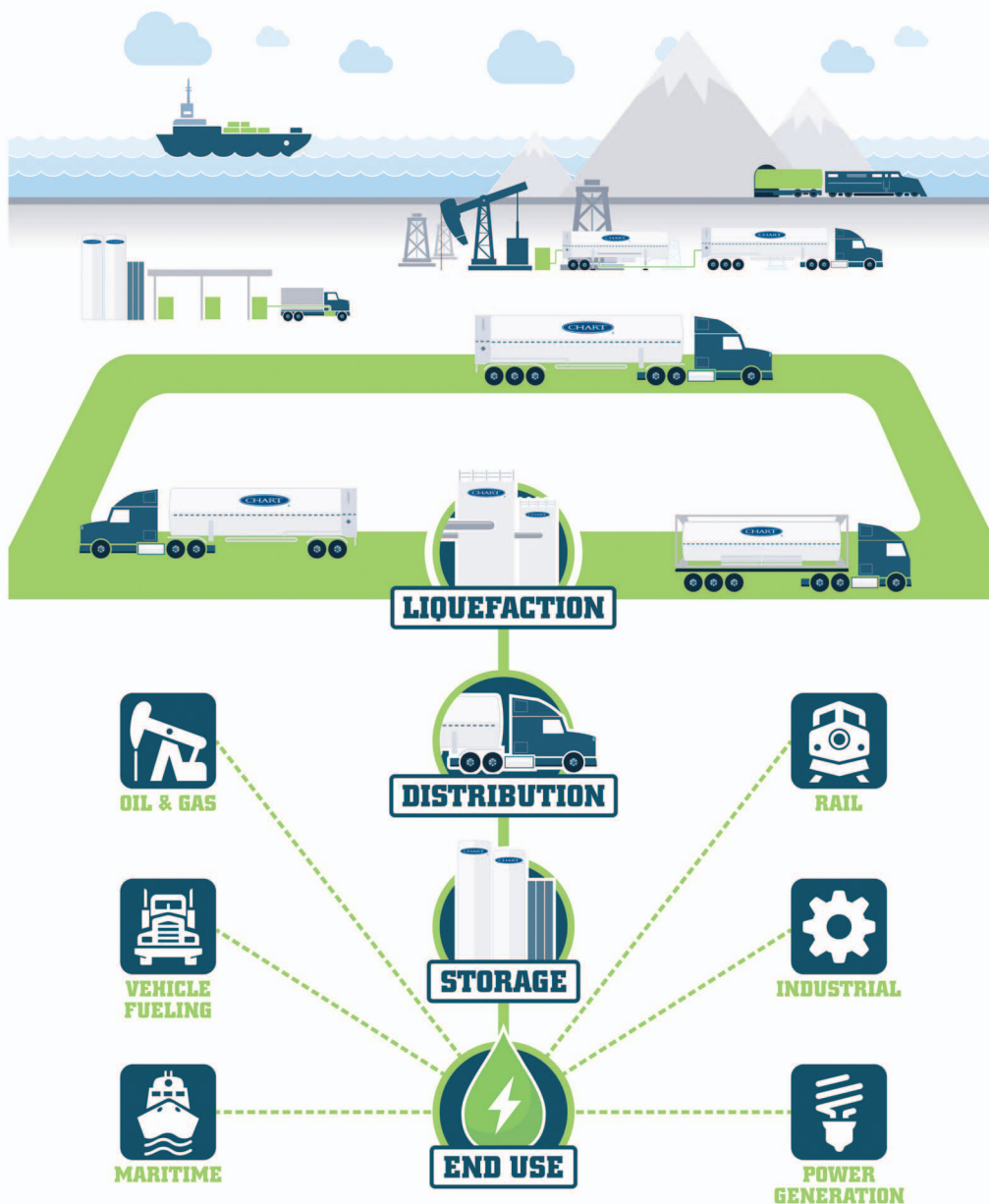
"The proposals would increase the LNG terminal's export capability to approximately 1.29 trillion cubic feet per year of domestically-produced natural gas or 24.92 MTPA of LNG," it said.

"The Sempra project states that the liquefaction facility would receive feed-gas for the expansion via an existing interconnection with Cameron Interstate Pipeline and a recently certified interconnection with Columbia Gulf Transmission, LLC," the FERC report said.

The whole Cameron project already has environmental approval. ■



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NEWS NUDGES

Technip-Woodside contract accord

French LNG and energy engineering company Technip was awarded a multi-disciplinary engineering services contract by Woodside, the largest LNG plant operator in Australia. "This contract covers all Woodside operated onshore, offshore and subsea producing assets," Technip said. Under the agreement, Technip and its subsidiary Genesis can provide a comprehensive suite of engineering services to Woodside. "We are delighted to continue our relationship and journey with Woodside in the pursuit of innovative engineering solutions for their existing and extensive onshore LNG facilities, offshore oil and gas assets and subsea infrastructures," said Arnaud Pieton, President of Technip in the Asia-Pacific region.

Sevan Marine FLNG deal

Sevan Marine, the Norwegian design, engineering and project company, said it was continuing with a floating LNG feasibility study for the use of its cylindrical hull concept for a specific FLNG development involving a US major. "Sevan Marine has been awarded a follow-up study focused on the marine aspects of Sevan's unique cylindrical design. The study is expected to generate approximately 9,000 hours of paid engineering work through 2016," the Norwegian company said.

FMC names new CEO

FMC Technologies, the energy and LNG project contractor, appointed Douglas J. Pferdehirt, 52, as the next President and Chief Executive, effective September 1, 2016. Pferdehirt will succeed John T. Grempe, 64, who will continue to serve as Chairman while the company completes its transition.

UK-based BMT Group wins design contract for Ivory Coast LNG project

Our Europe editor

BMT Group Ltd, the London-based engineering consultant, was awarded the owner's engineer and lead design consultancy contract for the development of a liquefied natural gas storage and regasification facility in the Ivory Coast in West Africa.

The contract was awarded by Endeavor Energy, an independent power development and generation company focused on Africa, to BMT's Asia-Pacific unit for work on the LNG facility that is part of the African nation's Songon gas-to-power project.

Greenfield

The Songon venture is a greenfield development consisting of combined-cycle gas-fired power generation, featuring purpose-built LNG infrastructure and a floating storage and regasification unit (FSRU) to import cargoes.

Endeavor and its partners have



Port facilities are varied near Ivory Coast capital Abidjan

already significantly advanced the project in terms of obtaining the coastal site and starting the environmental approvals process with the Ivory Coast government.

"At Songon, BMT will be conducting front-end-engineering level studies, including operability assessments, infrastructure design and optimization studies for the supply of gas from the LNG FSRU via subsea infrastructure to the onshore gas turbines outside the capital of Abidjan," BMT explained.

Endeavor said previously it had

initiated the environmental assessment for the transmission line and LNG infrastructure which will be completed in 2016.

The company focuses on African power projects by providing and organizing development plans, financing and engineering and construction.

Its headquarters are in Houston, Texas, with other offices in Abidjan in the Ivory Coast and Accra in Ghana, as well as Dubai in the United Arab Emirates.

Dallas-based Kosmos remains on track with Senegal LNG venture

Kosmos Energy, a US exploration and development company based in Dallas, Texas, said it was pushing ahead with its plans for a liquefied natural gas project in West Africa using its feed-gas discoveries offshore Senegal and Mauritania.

Kosmos Energy, a company listed on the New York Stock Exchange and with operations centred in Africa, gave an update on its activities in its latest earnings for the first quarter of 2016.

"Kosmos continued to build momentum in the first quarter," said Andrew G. Inglis, Chairman and Chief Executive officer.

"With the announcement of our Teranga-1 result in Senegal we continue our exploration success in opening a world-class basin offshore Mauritania and Senegal.

"We completed our appraisal

drilling of the Tortue West discovery and delineated a world-class LNG resource with fewer wells than anticipated," Inglis added.

Kosmos said in January 2016 that the Guembeul-1 well, located in Senegal and five kilometres south of the Tortue-1 well, made a significant natural gas discovery, extending the Tortue West discovery into Senegal.

In March 2016, Kosmos announced that the Ahmeyim-2 well, located about five kilometres northwest of the Tortue-1 well offshore Mauritania had successfully delineated the Tortue West gas field.

"The results of both wells resulted in an increase in the discovered resource of Tortue West and the Greater Tortue Complex, and based on these results the

appraisal drilling of the Tortue West structure was concluded," Kosmos said.

The Texas company added that it exited the first quarter of 2016 with \$1.5 billion of liquidity and \$826 million of net debt.

This compares to \$1.8Bln of liquidity and \$614M of net debt at the end of December 2015.

In its first-quarter earnings, Kosmos said 2016 oil revenues so far were \$62M versus \$109M in the same quarter of 2015, on sales of 1.9 million barrels of oil for 2016 as compared to 1.9M barrels in 2015.

The US company's Tweneboa, Enyenra and Ntomme (TEN) project, the second major oil development in Ghana, remains on-budget and is expected to deliver first oil in the third quarter of 2016.

Flogas Britain will supply LNG deliveries to four Scottish towns outside gas grid network

Our Europe editor

Flogas Britain, the liquefied natural gas provider for commercial and industrial customers, has signed a landmark deal with UK gas distribution company SGN to supply LNG to an independent grid system that serves four Scottish towns lying outside the national gas network.

Flogas, based near the city of Leicester in central England, said it signed a five-year accord to supply 10,000 tonnes of LNG a year to the system that provides natural gas to the towns of Oban and Campbeltown on the west coast of Scotland and to the northern Scottish towns of Thurso and Wick.

Kent source

The deal will see Flogas supply the fuel sourced from the UK's largest



Flogas has 1,000 truck slots at UK's biggest import terminal

import terminal on the Isle of Grain in Kent. The regasified LNG will be fed directly into SGN pipelines serving the towns.

LNG was previously supplied from the peak-shaving and storage site at Avonmouth in southwest England which, after 40 years of operation, has recently been decommissioned.

The UK's five peak-shaving facilities, owned by National Grid,

were at Glenmavis, Partington, Avonmouth, Dynevor Arms and Isle of Grain. They have all now closed commercial operations, while Grain LNG alone was expanded into an import terminal.

The four Scottish towns are served by around 90 kilometres of local pipelines supplied with the regasified LNG.

The towns are not physically connected to SGN's main distribu-

tion network and the LNG will be transported north by truck.

The LNG had previously been sourced from the Glenmavis LNG peak-shaving plant in central Scotland and then transported by trucks to smaller local storage sites.

Avonmouth and Partington had previously acted as back-up sources whenever Glenmavis was unable to provide LNG to the Scottish towns.

Joel Martin, Regulatory Finance Manager at SGN said: "With Avonmouth closing, we had to find an alternative solution for our customers that are connected to the LNG-fed Scottish Independent Undertakings.

"Following a competitive tender, it was Flogas's pricing, infrastructure and professionalism that led us to choose them for our supply."

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Golar LNG replaces CEO Gary Smith in overhaul

Golar LNG, the Norwegian owner of LNG carriers and Floating Storage and Production Units as well as developing production hulls, has overhauled its management and replaced Chief Executive Gary Smith.

Golar, founded in Norway and now based in Hamilton, Bermuda, said it was adapting to industry changes by changing its strategy.

The company said Smith had resigned from his position and been replaced by Oscar Spieler, who has been responsible for the conversion of the former LNG carrier "Hilli" into a floating production hull to be deployed offshore West Africa.

"Smith who was also Golar's CEO between March 2006 and July 2009 was re-hired as a consultant in 2014 to assist Golar in developing the LNG shipping business," Golar explained.

"He was promoted to Chief Executive in January 2015. Mr Smith has an excellent standing within the LNG industry and has contributed positively in the process of developing Golar into a midstream LNG player. The board wish him well in the future," it added.

Golar said the organizational changes were made to meet new challenges and "better align technical and operational activities which are based in Oslo."

In another management move, Golar said Doug Arnell who was CEO of the company until January 2015 remains as a senior advisor and will assist Spieler "to ensure strong leadership" of Golar's commercial activities.

The company additionally stated that it had hired Krzysztof Zielicki to structure the cooperation with energy services company Schlumberger.

France may seek ban on US LNG as part of Socialist anti-fracking mania

Our Asia-Pacific editor

French Minister of the Environment, Energy and Marine Affairs, Segolene Royal, the former partner of current Socialist President Francois Hollande, says she will examine ways to ban liquefied natural gas imports sourced from shale gas and cited cargo imports from the US in a speech to parliament.

In her statement to the French National Assembly, Royal spoke out against shale gas, or as it is called in French 'Gaz de schiste'.

Royal by name

Royal, whose title also includes responsibility for "International Climate Relations", said she would "examine from a legal standpoint" ways to ban imports of shale gas.

France banned all hydraulic fracturing to extract oil and natural gas from underground shale formations in 2011.

This put an end to shale exploration and production moves on French territory, except for exper-



Minister Segolene Royal with Engie CEO Isabelle Kocher

imental drilling or research. Three French energy companies, the oil and gas major Total, the utility Electricite de France (EdF) and gas and energy utility Engie have contracts to receive LNG cargoes from the US Gulf Coast.

"Since France banned hydraulic fracturing for environmental protection reasons, I interviewed these two companies (EdF and Engie) on the reasons why they had not been vigilant when these con-

tracts were drawn up," Royal said.

"These companies will have to shift providers to import only conventional liquefied gas," the minister added.

Engie, headed by new Chief Executive Isabelle Kocher, also has a stake in the Cameron LNG plant being built in Louisiana, along with developer Semptra Energy of California and Japanese trading houses Mitsubishi Corp and Mitsui.

Major Total wants US claims and fines for natural gas price-fixing heard in court

French energy company Total has taken its defence against a recent ruling and fines imposed by the US Federal Energy Regulatory Commission's enforcement office for trading manipulation and price fixing in the US Southwest to a federal district court in Texas.

The US subsidiary, Total Gas & Power North America Inc., is claiming that the US federal courts are the only places where alleged violations of the federal Natural Gas Act can be heard and settled.

The French company has filed a civil action with the Western District of Texas federal court division in the town of Midland.

The Total action is seeking a jury trial over the FERC allegations to be heard in a federal district court.

The FERC imposed fines of \$216.6 million and found Total and two of its traders guilty of manipulating natural gas market prices over a three-year period after a detailed investigation by the regulator.

The trades allegedly took place at four Southwest locations over the period of June 2009 to June 2012.

Fines were assessed at \$213.6 against the company, \$2M against a trader named as Therese Nguyen Tran and \$1M for a second trader, Aaron Hall.

The FERC Enforcement Office has given the Total US subsidiary and traders Hall and Nguyen Tran 30 days to "show cause why it should not be required to disgorge unjust profits of \$9.18 million, plus interest" as well as the fines.

FERC further directed Total, Hall and Nguyen Tran to show cause why they should not be assessed for the civil penalties at the given amounts.

The case followed a detailed FERC investigation and alleges that Total and the traders Hall and Nguyen Tran violated section 4A of the Natural Gas Act and section 1C of FERC's regulations, which prohibit natural gas market manipulation.

The FERC claims that Total, through Hall and Nguyen Tran, deliberately traded to affect monthly natural gas indexes "by transacting at prices and in ways that were designed to move index prices in a direction that benefited its related derivative positions."

Kunlun Energy aims to expand city-gas and LNG businesses and sell overseas assets

Our Asia-Pacific editor

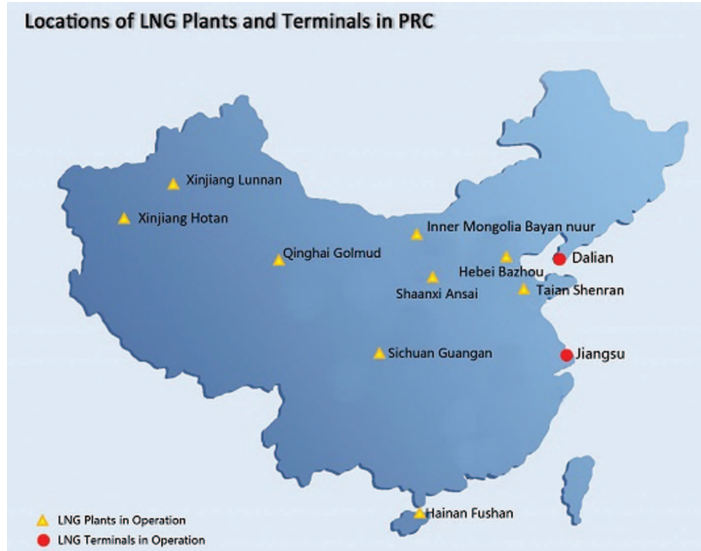
Kunlun Energy Co., a subsidiary of PetroChina, plans to sell upstream assets and may buy an LNG import terminal in northern China to go with the two it already operates and to expand its city-gas distribution business.

Kunlun owns the import and re-gasification facilities at Rudong in Jiangsu province in eastern China and Dalian in northeastern China and it may now purchase the LNG terminal in Tangshan.

Downstream

"We've made it clear that we want to be a downstream-focused gas distributor in China, and we don't feel that carrying upstream oil and gas assets will help us fulfill that goal," said Chairman Huang Weihe at the company's annual meeting of shareholders in Hong Kong.

Kunlun also owns nine small-scale LNG liquefaction plants that enable natural gas distribution by



Kunlun owns LNG production and import facilities

trucks from areas such as Bayan-nur in Inner Mongolia, Fushan in Hainan, the Lunnan plant and the Guangan LNG plant in Sichuan province.

PetroChina, the biggest domestic oil and natural gas producer, transferred its own domestic gas distribution company to Kunlun in

November 2015 to help it expand city-gas sales and compete with rivals such as China Gas Holdings and ENN Energy.

Kunlun owns nine oil and gas producing assets in China as well as six other countries, including Kazakhstan, Oman, Peru, Thailand, Azerbaijan and Indonesia.

As has happened to other energy companies, Kunlun's upstream assets began to lead to falling earnings since the oil price slump in mid-2014.

Kunlun added that its fourth natural gas pipeline linking Shaanxi and Beijing will be completed before 2017. The company said it intended to keep its pipeline assets.

Kunlun has also been developing LNG fuel use in China by implementing the "gas in substitution of oil" strategy.

The company also promotes the use of LNG for shipping on the Yangtze River and the Beijing- Hangzhou Grand Canal.

Additionally, Kunlun has sought to support and construct more LNG re-fueling stations across the country for heavy-duty trucks and other vehicles and has supported LNG public transport projects in the cities of Beijing, Chongqing, Haikou and Baoding.

Asian-led Canadian LNG project given party blessing at signing of China supply accord

A Canadian LNG export project controlled by Indonesian billionaire Sukanto Tanoto has held a formal signing of an agreement to supply China's Guangzhou Gas Group at a meeting in Vancouver of the visiting leader of the communist party in Guangdong province.

Tanoto and his Pacific Oil and Gas company are building their liquefaction and export project called Woodfibre LNG at the site of an old pulp mill near the town of Squamish, north of Vancouver.

The facility recently became the first LNG export project in the province of British Columbia to receive its full environmental approval from the federal ministry in Ottawa.

The export facility will produce 2.1 million tonnes per annum of LNG and the engineer-

ing and construction work has been awarded to US engineering company KBR.

The LNG contract signing to supply Guangzhou Gas with 1 MTPA of LNG over 25 years starting in 2020 came as BC Premier Christy Clark met a visiting Chinese delegation of more than 200 business and government officials, led by Hu Chunhua, a member of the Politburo of the Communist Party of China (CPC) Central Committee and the Party Secretary for Guangdong.

"The LNG offtake contemplated in the Heads of Agreement will provide a long-term stable supply of natural gas to meet the rapidly-growing demand for clean energy in Guangzhou City," Woodfibre LNG said.

Guangzhou is the capital and

largest city in the Guangdong Province of southeast China. The LNG unit of Tanoto's company has corporate offices in Singapore, Beijing, Hong Kong and Jakarta.

Woodfibre is constructing its plant on traditional lands claimed by the Squamish First Nation of native North Americans, apparently with their approval after initial opposition.

The First Nation, which numbers around 4,000 members, is set to give the venture overall approval after setting some of its own environmental review conditions.

The Asian-led LNG development has already received environmental approval from two provincial ministries.

Tanoto's Pacific Oil and Gas holds a 35 percent share in China's

Rudong LNG receiving terminal in Jiangsu, the coastal province north of Shanghai, with 55 percent held by Kunlun Energy, a Hong Kong listed subsidiary of PetroChina.

The remaining 10 percent share is held by Jiangsu Guoxin, the investment company of Jiangsu province.

"The Heads of Agreement with Guangzhou Gas shows there is an appetite in Asia for made in BC LNG," said Byng Giraud, manager and vice president corporate affairs for Woodfibre LNG.

"This preliminary agreement gets us one step closer to making the Woodfibre LNG project a reality, and bringing much-needed jobs and other economic benefits to Squamish and the surrounding area," Giraud added.