

LNG Unlimited

LNG JOURNAL PUBLICATION

27 June 2017

Japanese energy group Inpex bolsters LNG trading for Ichthys and Prelude

Firm has reorganized its Global Energy Marketing Division in terms of manpower and leadership for July 1 start
Our Asia-Pacific editor

Japanese energy company Inpex Corp. has bolstered its liquefied natural gas trading unit ahead of the coming on stream at the end of 2017 of the Ichthys LNG export project near Darwin in Australia's Northern Territory.

Inpex has reorganized its Global Energy Marketing Division in terms of manpower and leadership effective from July 1.

Objective

The establishment of the "LNG Trading Unit" will have as its objective to steadily improve the flexibility and efficiency of business operations relating to the regulation of the LNG supply and demand across the company's supply chain, as well as LNG transportation.

"These business operations including LNG trading and transportation from the company's projects outside of Japan have until now been carried out in part by the Gas Business Unit of the Global Energy Marketing Division," Inpex explained.

"This move reflects Inpex's initiative to enhance its management structure in the pursuit of the company's three growth targets," it added.

Inpex said LNG Trading would be a sub-division of Global Energy Marketing and would be headed by Masaru Miyana.

Inpex Chief Executive Toshiaki Kitamura is strengthening the Inpex LNG trading arm as he pushes for completion of Ichthys



Ichthys LNG plant at Darwin in Australia's Northern Territory

LNG near Darwin being developed with French energy company Total and which has twice pushed back its completion date.

Kitamura has said that the Ichthys venture was also likely to be expanded with the building of additional liquefaction Trains near the Bladin Point plant site.

Inpex is also a shareholder in the Prelude floating LNG project being developed by Royal Dutch Shell off the northwest coast of Australia, adding more volumes to its future LNG portfolio.

The company also owns the Naoetsu import terminal in the Japanese port of Joetsu. The facility opened in 2013 with two storage tanks with the capacity to import 1.5 million tonnes per annum with possible expansions increasing this to 3 MTPA.

Inpex's domestic market assets additionally include the Toyama Line, a natural gas pipeline that supplies customers based along its route in Toyama Prefecture, located on the coast of the Sea of Japan in the Chubu region.

Natural gas was received for the first time at the end of 2016 by the Hokuriku Factory of Asahi Soft Drinks Co. through the Toyama Line extension of its trunk

network that travels from Itoigawa City in Niigata Prefecture to Toyama City.

Deliveries to its latest domestic customer come as Inpex is building its LNG assets overseas and awaits the start of Ichthys LNG.

The Inpex Australian plant will deliver cargoes on a long-term basis to Japanese utilities Tokyo Gas, Osaka Gas, Kansai Electric Power, Toho Gas and Jera Co. Inc., the joint procurement venture between Tokyo Electric Power and Chubu Electric.

Latest customer

The Hokuriku Factory of Asahi Drinks is the third customer along the Toyama Line to which Inpex supplies natural gas.

The Hokuriku plant is located 400 metres from the Nyuzen Valve Station on the Toyama Line, which Inpex last year made fully operational.

Inpex began supplying natural gas, including regasified LNG from the Naoetsu Terminal, based on a natural gas sales and purchase agreement.

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Indian LNG imports decline even as Angola volumes add to Qatar and Nigeria shipments

Indian liquefied natural gas imports dropped by more than 7 percent last month as shipments came from regular suppliers such as Qatar and Nigeria, though there were fewer spot deliveries except one notable cargo from Angola in southwest Africa.

LNG imports by India during May 2017 amounted to 1.46 million tonnes, or 1.93 billion cubic metres of natural gas, a fall of 7.5 percent compared with the 1.58MT, or 2.14 Bcm of gas, received in May 2016.

Suppliers

During May cargoes arrived in India mostly from Qatar and were delivered to its three main regasification terminals, Dahej, Dabhol and Hazira, all on the West Coast near Mumbai.

Among the May imports the Dahej terminal, operated by Petronet, received a shipment from the 160,400 cubic metres capacity



The Angolan carrier 'Cubal' unloaded at Dahej on May 10

vessel "Cubal" on May 10 from the Soyo export plant of Angola LNG.

Among other May cargoes, the 136,000 cubic metres capacity "Raahi" unloaded a shipment from Ras Laffan in Qatar on May 6 at the Dahej facility.

The 145,000 cubic metres capacity "LNG Enugu" delivered a Nigerian cargo on May 17 to the Hazira terminal, operated by Shell India.

LNG imports by India in April had been 1.65MT, or 2.18 Bcm of

gas, an increase of 1.90 percent on the 1.58MT (2.14 Bcm) brought in during April 2016.

The 2017 fiscal year is now two months in and data from the Ministry of Petroleum and Natural Gas shows that LNG imports total 3.11MT.

Cumulative LNG imports for the past fiscal year from April 2016 to March 2017 rose 15.5 percent higher to 18.20MT compared with 15.76MT in the previous fiscal year.

Shipments to India had risen 30 percent in the 2016 calendar year to 18.99MT from 14.60MT in 2015, led by Qatar with 11.37MT and countries such as Nigeria with 2.63MT, Equatorial Guinea with 1.33MT and Australia with 1.11MT.

India will receive more US cargoes from the end of 2017 when the Cove Point plant in Maryland starts up and sends shipments to the tolling contract holder, Gas Authority of India.

Total net domestic production of natural gas rose by 10 percent in May to 2.69 Bcm compared with 2.45 Bcm in April 2017.

With domestic natural gas output being flat over the last few years India has plans to double its nationwide LNG import terminal capacity to around 50MT per annum by 2022.

However, this would require significant developments in LNG import capacity to take place.

BP and Reliance to spend \$6Bln to develop Indian offshore gas fields and compete with LNG

BP of the UK and one of India's largest conglomerates, Reliance Industries, plan to develop two deepwater natural gas fields to bring new production to India at a time when the nation is also increasing its LNG imports and expanding its regasification and pipeline infrastructure.

BP and Reliance said they would award contracts to advance development of the deepwater gas fields in Krishna Godavari Dhirubhai Block 6 offshore the East Coast of India.

The project takes its name from India's Krishna-Godavari Basin, which covers more than 19,000 square miles offshore the state of Andhra Pradesh in the Bay of Bengal.

The KG-D6 block was Reliance's first offshore gas field development and its first underwater discovery. It was also India's largest deposit of natural gas when first

found in 2002. The new BP-Reliance project will be known as the "R-series (D34)" project, a gas development in water depths of more than 2,000 metres and about 70 kilometres offshore.

The KG-DG well pressure and overall complexity of the offshore area in the Bay of Bengal will make it a difficult project.

The R-series fields will be developed as a subsea tieback to the existing control and riser platform off Block KGD6.

The project is expected to produce up to 12 million cubic metres (425 million cubic feet) of gas a day, coming on stream in 2020.

"This is the first of three planned projects in Block KGD6 that are expected to be developed in an integrated manner, producing from about 3 trillion cubic feet of discovered gas resources," said the statement from BP and Reliance.

Development of the three projects will involve total investment of 40,000 crore of Indian rupees (\$6 billion) and is expected to bring a total 30-35 million cubic metres (1 billion cubic feet) of gas a day in new domestic production. The gas will come on stream in a phased manner between 2020 and 2022.

"We are delighted to progress these developments, which will provide India with much needed indigenous energy and support the Prime Minister's call for import substitution and the development of a gas-based economy," said Mukesh Ambani, Chairman and Managing Director of Reliance.

"The solid relationship between our two companies is a great example of what can be achieved while working together at scale," added Ambani.

The two companies have also

agreed to deepen and expand their partnership to work jointly across a wide range of areas throughout India's energy sector.

Speaking in New Delhi after the project was announced, BP Chief Executive Bob Dudley stated: "This is an important step forward for BP in India. Working closely together, Reliance and BP are now able to develop these major deepwater gas resources offshore India efficiently and economically."

India currently consumes more than 5 billion cubic feet a day of natural gas and aspires to double gas consumption by 2022.

"Gas production from the integrated development is expected to help reduce India's import dependence and amount to over 10 percent of the country's projected gas demand in 2022," said BP and Reliance.

Latest Qatar accord will see more cargoes for Dutch and UK

Qatargas, the world's largest LNG exporting company, said it signed a new sales agreement with Royal Dutch Shell to deliver up to 1.1 million tonnes to the European energy major for up to five years.

The deal with the Gulf state of Qatar boosts the volumes of cargoes available to the Anglo-Dutch company to a new high following its takeover of LNG portfolio player BG Group of the UK.

The Qatargas-Shell accord provides for the supply to begin from January 2019.

"It is expected that the LNG will be delivered to either the Dragon LNG Terminal in the United Kingdom or the Gate LNG Terminal in the Netherlands," said Qatargas.

Shell acquired a stake in the UK Dragon terminal in Milford Haven in Wales as part of the BG takeover.

Qatari volumes are already shipped into the UK South Hook terminal in Milford Haven, owned by Qatar Petroleum and ExxonMobil.

Shell sold 15.84 million tonnes of LNG in the first three months of 2017 and 15.34MT in the fourth quarter of 2016.

The full-year 2016 LNG sales by Shell had been 57.11MT compared with 39.24MT in 2015, an increase of over 45 percent.

"We are pleased to have signed this agreement, strengthening our relationship with Qatargas," said Maarten Wetselaar, Director of the Integrated Gas division at Shell.

Australian plants boost shipments as Wheatstone set for start in August

Our Asia-Pacific editor

Australian LNG export plants performed strongly last month with the established West Coast facilities, North West Shelf, Pluto and Darwin all producing at above contract levels, while the new Gorgon plant continued to ramp up.

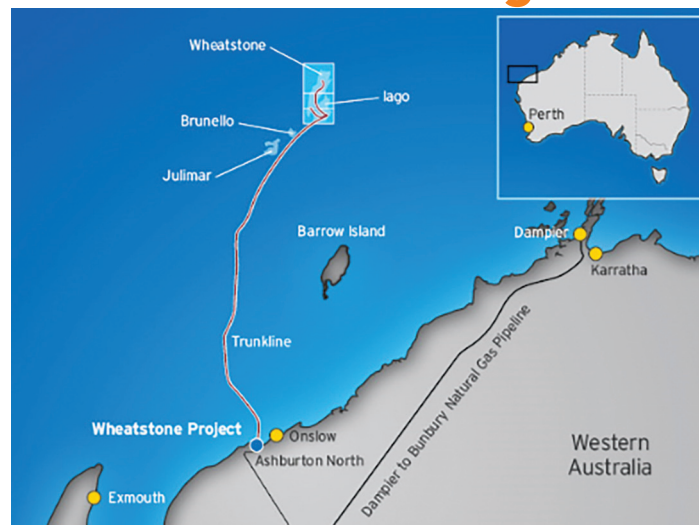
Despite problems with Train 1, the Chevron-operated Gorgon facility produced more than its two-Train nameplate capacity, according to the latest report from Australian consultants EnergyQuest.

Queensland

Shipments from the Australia Pacific LNG plant in the East Coast state of Queensland also exceeded nameplate capacity as the plant underwent its operational test, suggesting APLNG will have future capacity for spot cargoes.

West Coast plants shipped 2.8 million tonnes (up from 2.2MT in April) and Queensland plants delivered 1.7MT, up from 1.6MT in April.

The new Wheatstone project being developed by Chevron and with Woodside Petroleum as a partner is due to start production in August.



Asian nation to have imports and infrastructure put in place

The volume of LNG deliveries from Australia was higher in May than April, rising to 4.3MT compared with 4.0MT.

"Australia is more than holding its own in its key North Asian markets. Australia continues to be the largest LNG supplier to Japan and China and the second-largest to Korea after Qatar," said EnergyQuest.

Based on April import data, Australia supplied 46 percent of Chinese LNG imports, 29 percent of Japanese imports and

21 percent of Korean imports.

"Japan, China and Korea continue to be the dominant destinations for Australian exports, comprising 89 percent of deliveries in May (90 percent in April)," said EnergyQuest.

May deliveries to Japan were the lowest this year at 30 cargoes but 21 cargoes were delivered to China, up from 14 in April, with increased deliveries from most plants but particularly APLNG, where Sinopec has a stake.

South Korea expands LNG facilities for new Australian and US volumes

South Korea is continuing to expand its liquefied natural gas infrastructure as it imports more volumes from new plants in Australia and from other liquefaction and export facilities coming on stream over the next two years on the US Gulf Coast.

The South Koreans have just expanded an existing terminal, are ramping up a sixth facility and plan to start a seventh terminal by the end of 2017.

Korea Gas Corp. said it was completing tests on three large-scale LNG storage tanks, each with capacity of 270,000 cubic metres capacity, at its newest import terminal in the eastern

South Korean port of Samchoek. The Samcheok facility, located 300 kilometres east of Seoul, currently operates nine 200,000 cubic metres capacity storage tanks.

The Samcheok terminal began operations in 2014 with three storage tanks, each with 200,000 cubic metres of capacity, and it then built a further six tanks during 2015 and 2016 to give a capacity of 1.8 million cubic metres.

The three newest tanks with a combined 810,000 cubic metres of storage have now been completed to give the facility 2.6 million cubic metres of storage.

Samchoek is still only the

fourth-largest of Korea's six import terminals after three other Kogas-owned facilities, Pyeong-Taek, Incheon and Tong-Yeong.

However, Samchoek is twice as large as the biggest UK terminal at the Isle of Grain on the Medway River, south east of London.

During 2017, Kogas also plans to open the company's fifth import terminal at Jeju Island off the southern coast.

South Korean imports rose 2.3 percent last year to 34.19 million tonnes as volumes rose from new projects in Australia and will rise in the future from the US export plant build-out.

At the Core of LNG

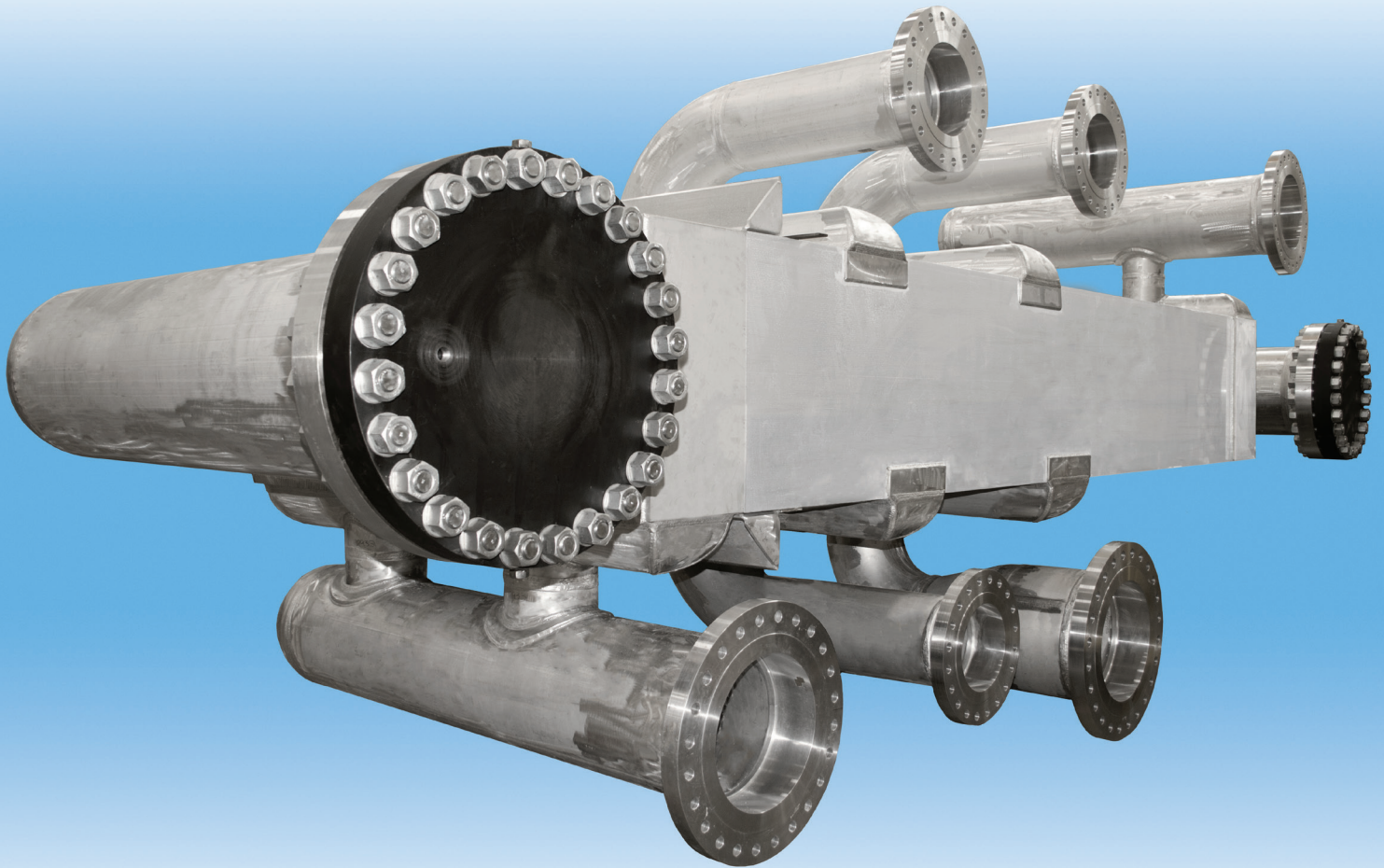


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NEWS NUDGES

Armenia gas fuel lead

Armenia's position as the world's largest user of gas-fueled vehicles as a proportion of cars, trucks and buses on the road was highlighted during a visit to the former Soviet state by Alexey Miller, Chairman of Russian natural gas giant Gazprom. Miller noted that Russian gas exports to Armenia amount to 1.9 billion cubic metres per year as the country has no energy resources of its own. "Gazprom expressed its appreciation for a robust use of natural gas in different economic sectors, including transportation. At present, around 80 percent of vehicles in the country run on natural gas," said Gazprom.

GTT LNG storage order

GTT, the French LNG maritime storage technology company, said it received an order from Hyundai Heavy Industries of South Korea to equip a new LNG carrier with its Mark III Flex containment system. Hyundai's shipyard based in Ulsan will build the 180,000 cubic metres capacity vessel for the Norwegian shipping company Norspan LNG (Knutsen). Delivery is scheduled for 2019. The Knutsen fleet contains 10 large-scale LNG carriers in service and one on order. These LNG carriers are all equipped with GTT containment systems.

Mexico bid round ends

Mexico has awarded 10 out of 15 licences for exploration in shallow water blocks in the Tampico-Misantla, Veracruz, and Southeast basin areas along the country's Gulf Coast. Twenty companies and 16 joint ventures from 15 countries took part in the bidding. Italian energy company Eni and Russia's Lukoil were two individual operators awarded offshore acreage.

Singapore performs first small-scale LNG re-loading on new Shell vessel

Our Asia-Pacific editor

Singapore LNG Corp., the owner of the city-state's sole liquefied natural gas import terminal on Jurong Island, said it had performed its first small-scale LNG re-loading operation for a newbuild owned by Royal Dutch Shell to underline its capabilities as an Asian fuel hub.

The loading was carried out for the 6,500 cubic metres capacity vessel "Cardissa", an LNG bunkering vessel just completed at a South Korean shipyard for Shell and co-financed by the European Union's programme to bring more LNG to Northwest Europe.

Secondary jetty

The operation was conducted at Singapore's Jurong LNG terminal's secondary jetty, which was originally designed to accommodate LNG vessels from 60,000 cubic metres capacity to 265,000 cubic metres capacity, though can now handle small-scale vessels.

"Detailed compatibility studies were carried out in advance to ensure that the vessel could safely call at the jetty," said SLNG.



The Shell-owned 6,500 cubic metres capacity vessel 'Cardissa'

"Among other things, the compatibility studies involved checking whether the vessel's equipment would be able to connect with the equipment at the secondary jetty, and the marine conditions needed to ensure that the operations could be conducted smoothly.

"Prior to this, the smallest LNG carrier that had called at the SLNG terminal for unloading or reloading was about 65,000 cubic metres in size," the company added.

Commenting on the first small-scale loading operation, John Ng, Chief Executive of SLNG, said the event was "significant" as it demonstrated the SLNG terminal's capacity to play the role of an LNG supply hub for the region.

"The terminal is able to break LNG cargoes into smaller parcels and facilitate deliveries of small volumes of LNG to other terminals in the region, or as bunker fuel to ships in our port," explained Ng.

"We are already looking ahead to further enhance our capabilities in this area, by exploring possible modifications to our secondary jetty to accommodate LNG vessels as small as 2,000 cubic metres. This is expected to come onstream in 2019," said the CEO.

Shell's LNG bunkering vessel "Cardissa" is now heading towards Europe after leaving the STX Offshore & Shipbuilding's yard in South Korea where it was constructed.

Energean to produce East Med gas off Lebanon to compete with LNG

Greek company Energean Oil & Gas will become a main East Mediterranean natural gas player from 2020 with the expected start of production from the Karish gas field offshore Lebanon and later from the Tanin field off the Israeli coast.

With nine exploration and production licenses, encompassing offshore Israel, Greece and the Adriatic, Energean said it expected to invest up to \$1.5 billion to bring the Karish field on stream.

The company, which has a spread of regional offices, including in Athens and Nicosia in Cyprus, was preferred as the Karish and Tanin offshore fields developer as Israel opted to diversify its E&P players,

who currently mainly comprise of Noble Energy of the US and subsidiaries of the Israeli Delek Group.

Energean bought rights to the Karish and Tanin fields from Delek in 2016 for \$148 million and has signed a contract to supply up to 1.5 billion cubic metres of gas annually to Dalia Power Energies, a private concern that plans to compete with Israel Electric Corp.

However, it is still seeking customers for a further 1.5 Bcm of pipeline natural gas.

Energean has just submitted its Field Development Plan for the Karish and Tanin gas fields to the Israeli Petroleum Commissioner.

Energean's Israeli subsidiary

holds 100 percent of Karish and Tanin, which combined have 2.7 trillion cubic feet of natural gas and 41 million barrels of oil equivalent of light hydrocarbon liquids in place.

The Karish development envisages drilling three wells and using a Floating Production Storage and Offloading (FPSO) unit that will be installed about 90 kilometres offshore Lebanon with 400 million standard cubic feet per day of capacity.

"The development through an FPSO will enable Energean to maximise the recovery of reserves and minimize environmental impact," the company said.

LNG producer Woodside faces arbitration claim by another Australian firm over Senegal stake

Our Asia-Pacific editor

Woodside Petroleum, the largest Australian LNG producer, has finally completed its entry into the new oil, gas and LNG province offshore Senegal in West Africa after receiving government approval despite plans by another Australian energy company to seek international arbitration in a dispute over the Woodside buy-in.

Woodside said that the Government of Senegal had now issued a ministerial order which provides further confirmation of Woodside's participation in the Rufisque, Sangomar and Sangomar Deep Joint Venture (RSSD).

Costs

Woodside spent \$US446 million to acquire a 35 percent stake from ConocoPhillips in the RSSD discov-



FAR Ltd MD Catherine Norman takes her claim to Paris

eries offshore Senegal. The Woodside acquisition of the Senegal block sparked a dispute between the Perth-based LNG producer and Melbourne-based Australian exploration and production company FAR Ltd, which also holds a 15 percent stake in the licence.

The blocks cover 7,490 square kilometres in the new hydrocarbon

basin of the Atlantic Margin.

They are in the same area where BP of the UK and Kosmos Energy of Dallas, Texas, are developing two floating LNG projects.

The BP-Kosmos two FLNG projects are based on a resource estimate for the Greater Tortue Complex offshore both Senegal and neighbouring Mauritania of more

than 25 trillion cubic feet of gas. First gas from Kosmos-BP FLNG Train 1 is scheduled for 2021 and the start of FLNG Train 2 is set for 2023.

Woodside said on June 21 that it had noted the announcement by FAR Ltd. on 20 June that it has made a request to the International Chamber of Commerce to commence arbitration proceedings "in relation to FAR's asserted right to pre-empt the sale of ConocoPhillips's interest in the RSSD Joint Venture" to Woodside.

"Woodside does not believe that FAR's claim has any merit. As FAR has apparently initiated arbitration proceedings, Woodside does not intend to make any further comment on the arbitration proceedings at this stage," Woodside stated.

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European LNG importer Spain gets more cargoes from key suppliers

Spain, the largest European importer of LNG, posted a 15 percent increase in shipments last month at its six operating regasification facilities compared with the same period a year ago.

Imports came from Qatar, Nigeria, Algeria, Norway and Peru, according to data from the national gas transmission company and terminal owner Enagas.

The Barcelona regasification terminal received six out of the total of 15 shipments brought into Spain.

The Huelva terminal in the southwest of the country received four cargoes while the southeast Sagunto facility and the northwest Bilbao terminal each received two shipments in May. The Cartagena LNG terminal received one cargo.

Spain received a net 10.17 million tonnes of LNG in 2016 compared with 8.82MT the previous year when it re-exported more shipments. It was the largest European importer last year followed by the UK, France and Turkey.

The first cargo to arrive in Spain last month was on May 1 when the 148,300 cubic metres capacity "LNG Ondo" unloaded a Nigerian cargo at the Sagunto terminal.

Enagas has four fully owned regasification terminals in Barcelona, Cartagena, Huelva and Gijón.

It also has 50 percent of the Bahía Bizkaia Gas (BBG) plant in Bilbao and 72.5 percent of the Saggas terminal in Sagunto.

All of them have the necessary technology for the unloading and reloading of carriers, which allows the company to reinforce the supply structure in Spain.

Monadelphous wins A\$600M of work for Australian LNG plants

Our Asia-Pacific editor

Monadelphous, the Australian engineering company based in Perth, was awarded a A\$600 million (US\$453M) contract by LNG producer Woodside Petroleum for the provision of gas asset general maintenance services over the next five years.

"The contract, which is for an initial period of five years with a further two one-year extension options, includes maintenance, shutdown work and offshore brownfields implementation for Woodside's onshore facilities," said Monadelphous.

Facilities

The plants covered include the Karratha Gas Plant, part of the North West Shelf LNG facility, the nearby Pluto LNG plant as well as its offshore facilities in Western Australia.

"Monadelphous has developed a strong reputation as a major onshore construction and maintenance partner on LNG projects around Australia," the company said.

"This contract, which adds to our Shell Prelude and offshore Ichthys LNG project contracts, rep-



Woodside-owned Karratha plant in Western Australia

resents another step towards Monadelphous achieving its long-term goal of becoming the partner of choice for the provision of offshore maintenance services," it added.

Monadelphous Managing Director Rob Velletri said the contract was a "significant strategic award", further demonstrating the leadership position in onshore and offshore maintenance services for gas production facilities in Australia.

"We have a long history of delivering on our promises to customers, maintaining the highest standards of quality and safety, and implementing innovative solutions that deliver continual improvements in

productivity," said Velletri. "It's pleasing to see our work in these areas recognised by Woodside with the award of a new, expanded contract which includes a significant portion of their offshore gas production facilities in the north west of Western Australia, in addition to the onshore maintenance services we currently provide," he added.

Monadelphous has worked with Woodside since 2002 by undertaking project activities.

Since 2012, it has also been performing shutdown and maintenance services for the Karratha Gas Plant and Pluto LNG production facility.

Australian APA Group plans to unlock more Queensland feed-gas

The Australian APA Group, the Sydney-based company that previously purchased an LNG feed-gas pipeline in Queensland, said it planned to build a new gas pipeline as part of an expansion to its East Coast grid.

APA said it would study the development of a pipeline from the coal-seam gas fields in the Bowen Basin to near the Queensland port of Gladstone, where three CSG-to-LNG plants are located.

The three plants are the Queensland Curtis LNG (QCLNG), owned by Royal Dutch Shell, Australia Pacific LNG, operated by ConocoPhillips, and Gladstone LNG, run by Santos.

The LNG plants have been at the centre of allegations, also involving Australian Prime Minister

Malcolm Turnbull, that they are using too much gas and tightening the market, leading to price rises for domestic consumers.

The average East Coast domestic prices have recently been as high as A\$9.95 per gigajoule, the equivalent of US\$7.10 per million British thermal units.

However, the Australian Energy Market Operator's most recently quoted price in the Brisbane-based East Coast market was much lower on June 21 at A\$7.32 per gigajoule, or US\$5.23 per MMBtu.

APA previously purchased the main supply pipeline to Shell's QCLNG plant when it was owned by BG Group.

The gas infrastructure company

agreed in December 2014 to pay US\$5 billion for the 543-kilometre pipeline that runs between CSG fields in the Surat Basin to the QCLNG liquefaction plant on Curtis Island.

The new APA plan will be underpinned by a memorandum of understanding with another Australian company Blue Energy, the gas sector operator with Bowen Basin development proposals.

Coupled with APA's recently announced plans for a pipeline connecting the Galilee Basin gasfields into the East Coast grid, the company is now studying two projects that would involve about 750km of pipelines.

Tokyo Electric and Chubu conclude integration deal for fuel and LNG receipt and storage assets

Our Asia-Pacific editor

Tokyo Electric Power Co. and Chubu Electric Power have concluded their agreement on the integration into their Jera Co. Inc. joint venture of their fuel receipt, LNG storage and gas transportation businesses, as well as existing thermal power generation assets with synergy savings alone estimated at more the \$890 million a year.

The two companies concluded a basic agreement on the integration of existing thermal power generation businesses into Jera earlier in 2017 and have been engaged in detailed studies and discussions about achieving the business integration.

Framework

“As a result, the two companies concluded a joint-venture agreement after having agreed on the basic business model framework that is to follow the integration and benefits the integration will bring, as well as detailed rules on



Executives handling the Tepco and Chubu Electric consolidation are from left to right: Chubu President Akihisa Mizuno, Jera President Yuji Kakimi, Jera Chairman Yoshihiro Naito and Tepco President Naomi Hirose

steps that would enable Jera to engage in unconstrained business activities,” they said.

The gas-fired, coal and fuel power operations, which account for half of Japan’s total thermal capacity, are being brought under the control of Jera, founded by Tepco and Chubu initially for LNG procurement in 2015.

Tepco formed a subsidiary called Tepco Fuel & Power Inc. to

merge the generating and other assets with Chubu. However, all Tepco and Chubu assets will be totally merged under one company by the end of fiscal 2019.

“Following the integration, Jera will promote such plans as strengthening the competitiveness of the domestic power generation businesses, expanding earnings in new business areas and achieving synergetic effects with Jera’s ex-

isting operations,” added the statement.

Tepco and Chubu said they expected the Jera venture to generate integration benefits amounting to at least 100 billion yen (\$895 million) a year within five years from the merger.

Their joint annual LNG requirement is around 45 million tonnes. The Tepco-Chubu LNG alliance under Jera has also been signing LNG cooperation agreements with other global players in Europe and elsewhere.

Jera made its first LNG cargo purchase from the US Lower 48 states in the form of a shipment from Cheniere Energy’s Sabine Pass facility on the Gulf Coast.

The cargo was bought under a sale and purchase agreement with Cheniere.

The first Jera US LNG cargo was delivered by the 173,000 cubic metres capacity vessel “Oak Spirit” to Chubu’s Joetsu LNG import terminal in early January 2017.

Japanese LNG imports jump 13 percent and monthly cost of cargoes soars more than \$1Bln

Japanese liquefied natural gas imports jumped 13 percent in May compared with a year ago and the cost to Japan of the shipments was \$1.13 billion more in terms of higher volumes and rising prices.

Cargo deliveries to Japan increased to 6.23 million tonnes in May compared with 5.52MT in May 2016.

A decline in Asia cargo volumes was offset by rises in deliveries from Australia, the Middle East and Russia and the start of a steady trickle of US cargoes, set to rise in the future.

Shipments to Japan last month also reflected a higher year-on-year cost of the fuel to the tune of more than 68 percent on a weaker yen against the dollar.

May 2017 shipments cost 309.54 billion yen (\$2.78Bln) compared with 183.62Bln yen (\$1.65Bln) in the same month a year ago.

Imports in April 2017 had increased 3 percent to 6.57MT compared with 6.38MT in April 2016.

The latest thermal coal imports dropped 10.8 percent in May to 7.68MT as LNG was preferred to coal for power generation use or storage.

Imports of thermal coal to Japan, a competitor to LNG, dropped 10.8 percent to 7.68MT year-on-year, according to the trade figures from the Japanese Finance Ministry.

The Ministry data on LNG imports showed that Asian shipments

in May from nations such as Malaysia and Indonesia, Papua New Guinea and Brunei fell 15.3 percent from a year ago to 1.58MT.

Imports from the Middle East region rose 7.6 percent compared with May 2016. The shipments from countries like Qatar, the United Arab Emirates and Oman totalled 1.34MT.

While there were no shipments from the US in April, the Japanese logged 143,000 tonnes of US LNG in May.

Monthly Russian shipments, mostly from the Sakhalin Island plant in the Far East, rose 35 percent to 803,000 tonnes.

The balance of March LNG imports from other nations in the preliminary figures rose year-on-

year to 2.62 million tonnes (versus 2.62MT in April 2017), covering shipments from countries such as Australia and Nigeria, as well as from the spot market.

Japanese LNG imports for all of 2016 amounted to 83.34MT, a decline of 2 percent on the previous year. Those shipments cost the equivalent of \$28.94Bln, a drop of 40.4 percent compared with 2015.

Japanese figures reported earlier in June showed that the average delivered price of spot liquefied natural gas shipments arriving in Japan was \$1.40 per million British thermal units higher at \$5.70 per MMBtu in May compared with \$4.30 per MMBtu in the same month of 2016.

US shale-gas firms EQT and Rice Energy in \$6.7Bln merger to create Marcellus giant for American supplies

Our North America editor in New York

Two of the largest US shale-gas producers, EQT Corp. and Rice Energy, have agreed to merge in a transaction valued at \$6.7 billion to create the nation's largest producer, holding 1 million net acres of the Marcellus Shale play to feed America's LNG export and gas-fired power plans.

EQT Corp., based in Pittsburgh, Pennsylvania, is essentially acquiring Rice Energy, whose headquarters are in Canonsburg, Pennsylvania, in an agreed deal that also involves \$1.5 billion in net debt and preferred equity as well as other key assets in the Utica Shale, spanning Ohio, West Virginia and New York state.

Common HQ

The Pennsylvania companies noted that production of the new shale-gas giant will be 1.3 billion cubic feet per day of natural gas.

This is one of the first major US shale-gas upstream mergers for several years as the new energy price environment has made companies seek opportunities such as the build-out of US LNG export plants to monetize the shale-gas boom.

EQT and Rice said their com-



New York Stock Exchange on day of merger announcement

bined pipeline access portfolio would enable them to send more shale-gas to the "premium Gulf Coast and Midwest markets through combined firm transportation."

"Additional infrastructure and optimization benefits also include rig allocation, pad sites, water, access roads and EQT's controlled natural gas gathering systems which are the fourth-largest in the US," they said.

"This transaction brings together two of the top Marcellus and Utica producers to form a natural gas operating position that will be unmatched in the industry," said Steve Schlotterbeck, EQT's Chief Executive.

"Rice has built an outstanding company with an acreage foot-

print that is largely contiguous to our existing acreage, which will provide substantial synergies and make this transaction significantly accretive in the first year," added Schlotterbeck.

"Since the beginning of 2016, we have added more than 485,000 acres to our development portfolio and have achieved significant scale in the core of the Marcellus," he stated.

"We will now shift our focus from acquisitions to integration as we work to drive higher capital efficiency through longer laterals and reduce operating costs," added the CEO.

Analysts point out that lower costs have been the key to the success of US development that

brings the shale resources to customer with much value to add in producing LNG or power.

"The vast majority of the acquired acreage is contiguous with EQT's existing acreage position and EQT anticipates a 50 percent increase in average lateral lengths for future wells located in Greene and Washington Counties in Pennsylvania," said the state-based companies.

"This same land synergy also complements the infrastructure footprint of EQT Midstream Partners, where growth opportunities are expected through drop-downs and additional projects.

"Already a leading producer in the Appalachian Basin, this acquisition will make EQT the largest natural gas producer in the United States," they stated.

Daniel J. Rice, Chief Executive of Rice Energy, stated that natural gas was the key to a cleaner energy world and the combination would advance US production.

"The combination of Rice and EQT - two of the largest, lowest-cost and most responsible natural gas producers in the US - creates an unparalleled leader in shale-gas development that will benefit the environment and our shareholders for many decades to come," said Rice.

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