

Baker Hughes independence is marked by solid set of results

Industry is forecast to reach investments in 100 MTPA of new output by end of 2019
LNG Journal editor

Baker Hughes Co., the energy services provider and LNG equipment supplier, said it expected an increase in liquefied natural gas project activity as it posted solid third-quarter results and more contract wins since regaining its independence from General Electric.

Baker Hughes posted third-quarter revenues of \$5.88 billion, an increase of 4 percent from the \$5.66Bn in the year-ago quarter, and the results included a modest net profit.

Increase

The company reported third-quarter net profits of \$57 million compared with \$13M in the same three months of 2018 and a \$9M loss in the second quarter of 2019.

Orders received in the quarter amounted to \$7.8 billion, an increase from the 2018 quarter of 35 percent.

"We delivered a solid third quarter with strong growth in turbomachinery (for LNG) and Oilfield Equipment orders, and continued margin improvement in our Oilfield Services business," said Lorenzo Simonelli, Baker Hughes Chairman and Chief Executive.

"Overall, we are very pleased with our execution as a team, and we believe Baker Hughes is firmly on the right path financially, operationally, and strategically," stated Simonelli in reference to General Electric giving up its majority ownership and the company regaining the Baker Hughes name.

"In Oilfield Services (OFS), we



Simonelli sees strength in LNG projects and equipment

continue to execute as the team drives operational improvements and wins commercially. Moving forward, we are increasingly focused on driving the next stage of margin improvement," added the CEO.

Simonelli said that in the LNG-led Turbomachinery and Process Solutions division, order growth remained solid compared with 2018, driven by strength in LNG activity and resilient order activity in the non-LNG businesses.

"We have seen approximately 80 million tonnes per annum of new capacity reach final investment decisions since the fourth quarter of 2018, and the industry is on track to reach the 100 MTPA we outlined by the end of 2019," said Simonelli.

Baker Hughes has already been awarded a contract and granted notice to proceed for Venture Global LNG's Calcasieu Pass project in Louisiana.

The US-listed company with main offices in Houston and London will provide an LNG liquefaction train system with 18 modularized compression trains across nine "blocks" for a total nameplate capacity of 10 MTPA.

"As we look to the remainder

of the year and into 2020, we believe we are well positioned for several large LNG projects still to come," he stated.

The Baker Hughes OFS division also secured contract wins in key international markets in the quarter.

The company signed a large agreement with Saudi Aramco to provide completions, liner hangers, well intervention equipment and associated services for a number of key projects over the next five years.

OFE also won a contract to provide subsea trees, wellheads, and associated services for Apache's UK North Sea development activities for the next three years.

Ichthys LNG

Also in the quarter, Inpex awarded OFE a subsea contract for its Ichthys LNG feed-gas field development, located off the northwest coast of Western Australia.

"Baker Hughes will deliver subsea production systems, including vertical trees, associated production control systems, distribution equipment, and topside controls," it said.

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PetroChina reports 23 percent drop in profits amid concern on LNG and pipeline imports

LNG Journal editor

PetroChina, the Hong Kong-listed arm of China National Petroleum Corp. (CNPC), reported a drop of just over 23 percent in nine-month net profits to 37.25 billion yuan (\$5.28 billion) due to a lower oil price and intensified competition in refining as it also faced revenue problems with LNG and pipeline gas imports.

Net profit for the third quarter was 8.83Bln yuan (\$1.25 billion), down by just over 58 percent compared with the 21.04Bln yuan (\$2.98Bln) reported in the same period a year ago.

Import losses

PetroChina, led by Chairman Wang Yilin, said the LNG and gas import losses were 1.80Bln yuan (\$256 million) higher than in the same period of last year.

The company explained that in the nine-month period, as a result of such factors like the change in the price and sales of all natural gas supplies, the gas and pipeline



Chairman Wang Yilin pleased by progress in onshore basins

segment posted an operating profit of 21.95Bln yuan (\$3.10Bln), which was 11.3 percent higher than the 19.72Bln (\$2.80Bln) recorded last year.

"However, as a result of the change in foreign exchange rates and the increase in procurement costs, the net loss incurred from sales of imported gas and LNG in the natural gas and pipeline segment amounted to 21.76 billion yuan (\$3.08Bln)," explained the company.

"The Group will make further efforts in loss-control for its im-

ported gas business," stated PetroChina.

PetroChina, the owner of LNG import facilities at ports such as Dalian, Rudong and Tangshan, said the average realized price for natural gas was \$5.49 per thousand cubic feet, representing a decrease of 4 percent compared with the same nine-month period last year, of which the domestic realized price was \$5.94 per thousand cubic feet.

PetroChina said the marketable natural gas output of the Group amounted to 289.2 billion cubic

feet, representing an increase of 8.7 percent compared with the same nine-months of 2018.

The CNPC company and its PetroChina unit have substantial LNG assets, including stakes in the Russian Yamal export plant and projects in countries such as Mozambique.

The company additionally reported some successes with its shale oil and gas exploration and development activities inside China.

"A significant discovery was made in the Chang 7 oil exploration block in the onshore Ordos Basin in Central China and progress was also made in shale-gas exploration in the Sichuan Basin," said PetroChina without giving details.

"In respect of overseas oil and gas business, the Group strengthened the management and risk controls of key projects," it added.

PetroChina also gave a downbeat view of the energy business in the past year and going forward.

French major Total sees LNG volumes soar but lower prices reduce earnings from expansion

French energy major Total said it continued its "dynamic strategy of growth" in natural gas with its acquisition of the Mozambique LNG stake and the launch of the Arctic LNG II project even as third-quarter net income dropped 29 percent to \$2.80 billion compared with \$3.95Bln a year ago on lower prices.

"The Group continues to achieve solid results despite a third quarter environment compared to a year ago that was marked by an 18 percent decrease in the Brent price to \$62 a barrel and gas prices that fell by about 55 percent in Europe and Asia," said Chairman and Chief Executive Patrick Pouyanné.

"Cash flow was essentially stable at \$7.4 billion compared to a

year ago, thanks to production growth of more than 8 percent from cash flow accretive projects," added Pouyanné.

"Year-to-date cash flow increased by nearly \$1 billion, driven by LNG production growth of 55 percent (Yamal LNG in Russia and Ichthys in Australia)," he said.

The quarterly sales of LNG volumes rose but at lower prices. Third-quarter LNG sales were up 20 percent at 7.4 million tonnes versus 6.2MT in the 2018 quarter, while nine-month LNG volume sales jumped 71 percent to 23.7MT from 13.9MT from the same period of last year.

Total's LNG activities are part of its Integrated Gas, Renewables and Power division.

"Total LNG sales increased by 20 percent compared to last year for the third quarter, thanks to the ramp-up of Yamal LNG and Ichthys as well as the start-up of the first Train at Cameron LNG in the US," said Total.

The sales numbers also include the acquisition of the portfolio of LNG contracts from French utility Engie in the third quarter of 2018.

Adjusted net operating income was down 18 percent to \$574 in the third quarter and was also 8 percent lower for the nine-month period at \$1.59Bln, impacted by lower gas prices in Europe and Asia.

Total also posted a 12 percent decline in overall nine-month net income to \$10.67Bln from

\$12.11Bln in 2018. "Thus Total reduced its organic pre-dividend breakeven to less than \$25 per barrel," stated CEO Pouyanné.

Total said that adjusted net income was \$3.02Bln in the third quarter and nearly \$9Bln in the first nine months of the year.

"The Group continues its dynamic strategy of growth in natural gas to contribute to the energy transition in concrete terms with the acquisition of Anadarko Petroleum's stake in Mozambique LNG, the launch of the Arctic LNG II in Russia and the investment in the gas marketing partnership with conglomerate Adani in India," said Total.

Air Products confirms \$11.5Bln deal in Saudi

Air Products, the US LNG equipment-maker and industrial gas company, said it was in final negotiations to form a joint venture with Saudi Aramco and Acwa Power to acquire the gasification, power and industrial gas assets at Jazan Economic City, representing a total investment value of about \$11.5 billion.

The confirmation from Air Products follows an announcement made by Saudi Aramco at the Future Investment Initiative conference in Riyadh and builds on previous Air Products statements on the world-class project.

The US company said it looked forward to concluding negotiations and expects to close the transaction by the end of 2019.

The Lehigh Valley, Pennsylvania-based company conducts its industrial gases business alongside its provision of LNG equipment products such as the main cryogenic heat exchangers for plants and its proprietary propane pre-cooled mixed refrigerant liquefaction process.

Most of the worldwide LNG production comes from Air Products technology and the company provides key equipment for the natural gas liquefaction process for large export plants, small and mid-sized plants and floating LNG facilities.

Air Products said it would provide additional comments in its forthcoming fiscal fourth-quarter earnings on November 7.

The Jazan Region is in the far southwest corner of Saudi Arabia and stretches some 185 miles (300 kilometres) along the southern Red Sea coast, bordering Yemen on its Southern edge.

Gladstone LNG to explore for more Surat Basin feed gas

LNG Journal editor

The Gladstone liquefied natural gas joint venture involving Santos of Australia, Petronas of Malaysia, Korea Gas Corp, and French major Total, plans to open up more Queensland coal-seam gas supplies to boost the long-term viability of the plant on Curtis Island.

The GLNG joint venture said that the Queensland Government had nominated the partners as the preferred tenderer for two new onshore exploration areas in the state's Surat Basin.

The CSG-to-LNG plant came on stream in 2015 and has two liquefaction Trains producing about 8 million tonnes per annum of cargoes, all point at the Asia market.

The exploration blocks made available by the Queensland state government are lease 2019-1-10, located 67 kilometres east of the town of Roma and amounts to 89 square kilometres.

The second lease 2019-1-9 is sited 41km east of Roma in an area of 12 square kilometres.



CEO Gallagher: 'We will leverage our extensive knowledge of the Basin to quickly and efficiently define resources'

"The work programs involve seismic, pilot wells and extended production testing and work will start after all environmental approvals are in place and the acreage is formally awarded to the GLNG joint venture," said Santos, operator of the GLNG plant.

Santos Chief Executive Kevin Gallagher said the GLNG partners would bring their low-cost disciplined operating model to the two developments.

"We will leverage our extensive knowledge of the Surat Basin to quickly and efficiently define the

resource," explained Gallagher.

"By using existing infrastructure located in the adjoining GLNG Roma Development project, Santos and its partners will maximize the extent and value of the resource," he added.

The GLNG facility is adjacent to two other LNG export plants, operated by ConocoPhillips and Royal Dutch Shell.

These are the Australia Pacific LNG and Queensland Curtis LNG facilities and are big suppliers to North Asia, especially China.

Origin Energy reports a steady Australia-Pacific LNG cargo flow

Origin Energy, the Australian utility and upstream supplier for the Australia-Pacific LNG export plant in Queensland, whose other shareholders are ConocoPhillips and Chinese major Sinopec, said its share of quarterly LNG sales rose by 8 percent to 828,700 tonnes from the total of 31 cargoes shipped from the facility.

Origin's statement came in its quarterly activity report from its two divisions, Integrated Gas for LNG and domestic supplies and Energy Markets containing its electricity and utility business.

Total commodities revenue in Integrated Gas for LNG and domestic gas came to A\$687.9 million versus A\$640.5M in the year-ago quarter.

Origin received an average cargo price of US\$9.67 million

British thermal units compared with US\$9.93 per MMBtu in the same three months of 2018 and US\$9.31 per MMBtu in the previous quarter of 2019.

The plant on Curtis Island in Queensland produces almost 9 million tonnes per annum from two Trains and 7.6 MTPA is contracted to Sinopec, whose formal name is China Petroleum & Chemical Corp.

Sinopec holds a 25 percent stake in APLNG while Origin and ConocoPhillips each hold 37.5 percent of the shares.

The Sydney-based utility said the average domestic natural gas spot gas price for the quarter to the end of September was A\$8.11 per gigajoule (about US\$5.32 per MMBtu) compared with \$9.53 per gigajoule in the prior quarter and

\$9.45 per gigajoule in the same three months of 2018.

"The price decline was driven by softening Asia region LNG pricing and milder domestic winter conditions," said Origin.

Origin narrowed losses from hedging and trading costs reported as A\$21.9 M, down 57 percent from the A\$51.1M spent in the same three months of 2018, reflecting lower oil hedge premium amortisation and a smaller LNG hedge position.

The company said total retail electricity sales volumes dropped to 4.4 terawatt hours with a similar 4.4 TWh reported for power sales to business in the states of New South Wales, Queensland, Victoria and South Australia.

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NEWS NUDGES

South Korean imports fall

South Korean LNG imports are forecast to decline over the next five years after reaching record volumes in 2018 as nuclear and coal power plants come on line. The world's third-biggest LNG importer received record shipment in 2018 of 44 million tonnes. LNG imports are expected to fall in 2019 by 9 percent compared with last year to around 40.5MT. "As we move through the early 2020s, LNG will come under pressure in the power sector as new coal-fired power capacity starts up and imports will fall towards 36 million tonnes per annum," according to energy consultancy Wood Mackenzie.

Novatek stake sale boost

Russian natural gas company Novatek reported a 7.9 percent rise in nine-month revenues of 641.8 billion rubles (\$10.5Bln) and a 14 percent jump in gross earnings to 338.3Bln rubles (\$5.30Bln). "This was largely due to an increase in LNG sales volumes and our domestic average natural gas sales price, which was offset by a decrease in prices," said Novatek. Profit in the third quarter rose eight-fold to 370.0Bln rubles (\$5.79Bln) from 45.90Bln rubles (\$775 million) and in the nine months period was up seven-fold to 820.9Bln rubles (\$12.85Bln).

Modec LNG contract

Modec Inc. of Japan said it signed a contract with ConocoPhillips (Australia) to provide a Floating Production Storage and Offloading (FPSO) vessel for the Barossa field, offshore northwest Australia that will supply the Darwin LNG plant.

India's Petronet sees profit up as US investment considered

LNG Journal editor

Petronet LNG, the largest importer of cargoes in India from nations like Qatar and Nigeria, posted a 13 percent fall in third-quarter revenues as net profits jumped while the company was considering taking an equity stake in a US export plant in Louisiana.

Petronet reported net profits in the third quarter of 1,089 crore rupees (\$153.6M), an increase of 90 percent on the 572.89 crore rupees (\$80.80M) logged in the same period of 2018.

Operator

Third-quarter revenues declined to 9,449 crore rupees (\$1.33 billion) from 10,852 crore rupees (\$1.53Bln) posted in the same three months a year ago.

Petronet currently operates India's busiest regasification facility at Dahej, north of Mumbai, with 15 million tonnes per annum of capacity and six storage tanks. The terminal is being expanded to handle 17.5 MTPA.

The company was formed by the Government of India in 1998 specifically to import LNG and will be ex-



The Dahej import terminal located north of Mumbai

panding its interests in the years ahead into LNG fuel distribution.

Shareholders in Petronet, which began operations in 2004, include the other big Indian energy players, Gas Authority of India, Indian Oil Corp., Oil and Natural Gas Corp. and Bharat Petroleum Corp.

Petronet said its board of directors approved a special interim dividend of 5.50 rupees (\$0.08) per share for the 2019-2020 fiscal year.

"Petronet is also looking at buying a 26 percent stake in Bharat Petroleum's planned East Coast LNG import terminal," said Prabhat Singh, Petronet Chief Executive.

Singh added that the company's net earnings had benefited

from lower corporate tax rates.

Petronet's Dahej import terminal is operating at full capacity while its second terminal at Kochi in the southwest state of Kerala is unable to handle many cargoes because pipeline links to potential customers have yet to be completed.

The company has signed an accord with US company Tellurian, developer of the Driftwood LNG export project in Louisiana, to receive future shipments and to possibly take a stake in the plant.

The initial agreement with Tellurian signed in Houston in September 2019 allows Petronet to negotiate to buy up to 5 MTPA of US volumes.

Tokyo Gas improves income and expands business in Asia and US

Tokyo Gas, the Japanese utility and importer of 14 million tonnes per annum of LNG, said fiscal half-year net sales from April to September increased by 9.4 percent as it benefited from the nations liberalization of the utility sector and from diversifying and expanding the sources of its LNG imports.

The Tokyo Gas first-half revenues amounted to 910.481 billion yen (\$8.36 billion) compared with 832.3Bln yen (\$7.64Bln) in the same six months of 2018.

The utility, which has four LNG import terminals and 13 LNG carriers owned or managed, reported that net profits for the six months were 5.3 percent higher at 28.3

billion yen (\$260.5 million) versus 26.9Bln yen (\$247.3m) in the year-ago period.

That's as total city-gas sales volumes fell 1.7 percent to 6.70 billion cubic metres versus 6.82 Bcm in the fiscal first half of 2018 as it faced more competition from other utilities while also increasing its own customer base in Japan's electricity market.

Part of the Tokyo Gas strategy has also been to diversify and expand raw materials procurement and overseas upstream projects including in the LNG value chain.

The company has a tolling agreement share in the Dominion Energy Cove Point plant in Mary-

land and is also involved in upstream projects in the Eagle Ford and Barnett shale-gas basins in Texas.

The largest Tokyo Gas LNG volumes come from Australia where it has foundation customer stakes in five projects.

These are the Chevron-operated Gorgon plant, Woodside Petroleum's Pluto LNG, the Inpex-run Ichthys project at Bladin Point, the Darwin LNG plant and the Royal Dutch Shell-operated Queensland Curtis LNG facility.

Tokyo Gas also has stakes in southeast Asia and is expanding its business in Thailand and Vietnam.

Kosmos and BP make largest deepwater find this year with Mauritania gas to boost LNG plans

LNG Journal editor

Kosmos Energy, the US stakeholder in floating LNG projects offshore Mauritania and Senegal with BP of the UK, said they made a major natural gas discovery at the Orca-1 exploration well offshore Mauritania in West Africa.

"The results continue the 100 percent success rate from nine wells targeting the inboard gas trend in Mauritania-Senegal," stated Kosmos.

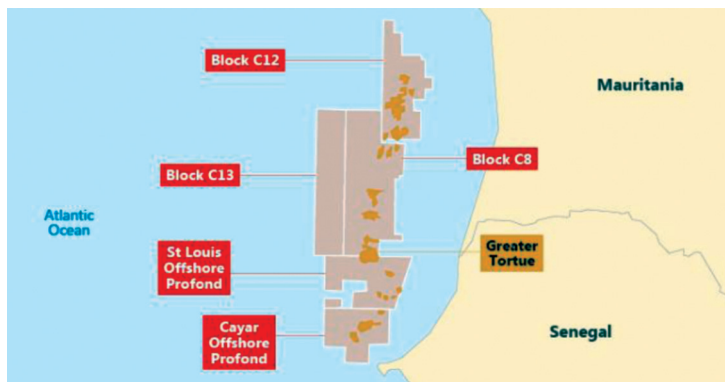
Reservoirs

Dallas, Texas-based Kosmos said the Orca-1 well exceeded pre-drill expectations encountering 36 metres of net gas pay in excellent quality reservoirs.

Kosmos explained that the area of the Orca-1 prospect has gas initially in place (GIIP) of 13 trillion cubic feet.

Kosmos and its partners, BP and the Mauritanian state-owned energy company, SMHPM, are now calling the area of the discovery the BirAllah gas hub.

The Orca-1 well is located about 125 kilometre offshore Mauritania and was drilled in about 2,510 metres of water to a total measured depth of around 5,266 metres.



US and UK partners now have substantial gas for projects

"In total, we believe that Orca-1 and Marsouin-1 have de-risked up to 50 Tcf of GIIP from the Cenomanian and Albian plays in the BirAllah area, more than sufficient resources to support a world-scale LNG project," stated Kosmos.

"In addition, a deeper, untested Aptian play has also been identified within the area and surrounding structures," added Kosmos.

The Orca-1 was another plus for the Kosmos exploration track record within the 400-kilometres long Mauritania-Senegal gas basin.

Kosmos said that because of the latest find it was extending into 2020 its sales process for a stake in the growing natural gas assets it owns in the prolific

Atlantic Margin fields of West Africa.

"The Orca-1 well concludes a very strong year for exploration and appraisal in Mauritania and Senegal," said Kosmos Chairman and Chief Executive Andrew G. Inglis.

"Orca-1, which we believe is the largest deepwater hydrocarbon discovery in the world so far this year, further demonstrates the world-scale quality of the Mauritania gas basin," added Inglis.

"With sufficient resource in place at the BirAllah hub, Kosmos looks forward to working with the Government of Mauritania and its partners to bring benefits to the people of Mauritania through the

development of cost competitive, low carbon intensity projects," stated the Kosmos CEO.

"Due to the scale and materiality of the Orca-1 discovery, Kosmos is extending the timeline of its Mauritania-Senegal sell down process into 2020, giving potential bidders additional time to analyze the new data," said Inglis.

Kosmos, BP and its partners are already developing the Greater Tortue-Ahmeyim field off Mauritania and Senegal and two FLNG projects.

The Greater Tortue-Ahmeyim LNG project is on track and all engineering contracts have been awarded.

The first gas from the Kosmos-BP FLNG Train 1 is scheduled for 2021 and the start of the second FLNG Train is set for 2023.

Kosmos was the original successful explorer of the Senegal-Mauritania reserves and agreed to sell BP around 60 percent of the licences in 2016 with the UK major taking over operatorship.

The US company retained around 30 percent of the Senegal fields and licence and about 28 percent of the project's Mauritania holdings.

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Mitsui & Co emerges as partner in US plans

Japanese trading house Mitsui is emerging as a key partner in the liquefied natural gas projects being built up on the US Gulf Coast and on the Pacific Coast of Mexico by California-based utility Semptra Energy.

Mitsui & Co. has just signed an accord with Semptra on its participation in the phase two expansion of Cameron LNG and in the transformation of the Costa Azul terminal in Mexico into a sizeable liquefaction and export plant.

"This agreement signals continued momentum in the growing US LNG export market, while reinforcing the unique competitive advantage that Semptra offers customers seeking LNG export capabilities from the Gulf Coast, as well as the West Coast of North America," said Justin Bird, President of Semptra LNG.

"We are pleased to expand our relationship with Mitsui and advance the development of both LNG projects," added Bird.

Motoyasu Nozaki, the Chief Operating Officer of the Energy Business for Mitsui, which is already a founding shareholder in Semptra-run Cameron LNG with Japan's Mitsubishi Corp. and NYK Line as well as French major Total, said he was pleased to further expand the strategic relationship with Semptra.

"This agreement will contribute to expanding Mitsui's uniquely diversified supply portfolio worldwide by utilizing the strengths and capabilities of both companies," added Nozaki.

While the Semptra-Mitsui accord is a non-binding memorandum of understanding, it emphasizes continued mutual support for phase two of Cameron LNG, including Mitsui's purchase of up to one-third of the available capacity of the project.

South Korea plans LNG-powered newbuilds for state-owned fleet

LNG Journal editor

South Korea said it would start replacing 140 government-owned coastal ships with newbuild vessels using clean fuel and with the largest having propulsion systems powered by liquefied natural gas.

"The project will help South Korea to reduce fine dust, greenhouse gas and air pollution, and contribute to developing technologies in the field for an environmentally-friendly shipping industry," said the statement from the Minister of Oceans and Fisheries Moon Seong-hyeok.

Legislation

The move is in line with a new South Korean law coming into force in 2020 and requiring public bodies and organizations to adapt ships so that they run on cleaner energy sources such as LNG within 10 years.

The government has also been seeking to help develop the emerging LNG-fueled shipping sector to comply with the International Maritime Organization's sulfur cap of 0.5 percent on



South Korean Minister is opting for more use of LNG

marine fuel content set to be enforced from 2020.

LNG-powered ships are considered one of the options to meet strengthened IMO regulations, but the high cost of the ships has posed a challenge for ship owners.

Currently only one LNG-powered vessel is operating in South Korea and the Ministry is leading plans for up to 200 orders to be made for ships with LNG capability, including dual-fuel vessels, over the next three years.

The Ministry said that under its new plan ships that weigh 200 tons or more will be powered by LNG, while other smaller vessels will have electric propulsion or

have hybrid engines. It added that the replacement programme would be guided by the current life expectancies of government-owned ships.

For the ships whose life expectancy is beyond 2030, the Ministry said that it would install new equipment such as diesel particulate filters to reduce harmful emissions.

The latest move is part of the government's policy to order vessels powered by LNG to support a more environmentally-friendly shipping sector and to develop associated industries as well as more LNG bunkering facilities in its ports.

Hyundai shipbuilding units return to profit amid industry's overhaul

Hyundai Heavy Industries Group said its shipbuilding units swung back to profit in the third quarter because of increased sales of high-value liquefied natural gas carriers to shipping companies around the world and as more shipyard berths are set to be booked for the next couple of years for LNG projects in nations such as Qatar and Mozambique.

Hyundai said that third-quarter profit of Korea Shipbuilding & Offshore Engineering (KSOE), a holding company that oversees shipbuilding units in the group, came to 20.4 billion South Korean won (\$17 million) on a consolidated basis compared with a net loss of 23.1 billion won (\$19.8M) in

the same three months a year ago.

KSOE currently manages the group's three shipbuilding companies, Hyundai Heavy Industries, Hyundai Mipo Dockyard and Hyundai Samho Heavy Industries.

Sales at KSOE amounted to 3.6 trillion won (\$3.1 billion) in the third quarter, a rise of more than 12 percent compared with the same quarter of 2018.

"We're continuing with our solid performance in the broad shipbuilding sector, but due to global uncertainties sparked by the US-China trade dispute, global orders have fallen compared with last year," said the earnings statement from KSOE.

"We're currently focusing on

securing orders for LNG carriers and LNG-powered ships," added the company.

LNG carriers are currently priced at around \$190 million per ship and at least 70 are expected to be ordered in the next year or so for the Qatar LNG expansion at Ras Laffan in the Gulf and the Mozambique LNG buildout of multiple Trains in southeast Africa.

Hyundai Heavy Industries was split into two entities, KSOE and a reorganized Hyundai Heavy, under an agreement with the Korea Development Bank regarding the acquisition by Hyundai of rival shipbuilder Daewoo Shipbuilding & Marine Engineering (DSME).

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Germany's winter natural gas market has ample supply and storage ahead of LNG projects

LNG Journal editor

The body representing German pipeline operators said the leading European Union nation would have enough natural gas this winter, despite restrictions on transit routes for Russian supplies because of an EU ruling in favour of Poland and as Germany is developing its first LNG import facilities.

"The Opal and TENP 1 pipelines will have capacity restrictions while storage levels are close to 100 percent," said the German Association of Transmission System Operators (FNB) in its winter outlook.

Weather

"Mild weather in 2018-2019 has meant gas storage, accounting for about a fifth of annual demand, is well up on the roughly 52 percent level of a year ago," added the FNB.

German natural gas is supplied by Russia, Norway and the Netherlands and is delivered through



Nord Stream volumes came ashore at Greifswald in Germany

530,000 kilometres of pipelines from far-flung areas of Russia and the Norwegian Continental Shelf.

The Germans form Europe's biggest natural gas market after the UK and the nation is an importer of more than 90 percent of its needs.

It receives Russian natural gas via Ukraine and Poland and from the Nord Stream 1 pipeline across the Baltic Sea for onward distribu-

tion to other EU countries in the region.

The Opal pipeline was ordered in September to cut some 40 percent of shipments received from Nord Stream after Poland successfully contested Russia's supply dominance in the EU courts.

The effect of the reduction has been limited so far because of the availability of cheap alternative supplies in the pre-winter market.

Restrictions also apply for different reasons to the TENP 1 pipeline, which runs from the Netherlands to Italy and Switzerland via south-western Germany and has suffered from corrosion problems. Major repairs to TENP 1 are now likely to be scheduled.

Norway and the Netherlands also supply large volumes of gas directly to Germany.

Germany will additionally be joining the LNG market in the next couple of years with volumes from North America and elsewhere with regasification and import terminals planned for Elbe River at Brunsbüttel near Hamburg and at the North Sea port of Wilhelmshaven.

"Against the background, the role of gas for the German energy system, which was emphasized by Federal Minister of Economics Peter Altmaier, continues to gain in strategic importance," said Inga Posch, Managing Director of the FNB.

Naturgy Energy of Spain swings to profit after overhaul as LNG improves amid lower prices

Naturgy Energy Group, the Spanish utility with Latin American assets and LNG volumes from the US and Russia, swung to a profit after losses last year linked to restructuring as it invested in natural gas infrastructure and renewables.

The Spanish utility posted a nine-month profit of 901 million euros (\$1Bn) compared with losses of 3.04 billion euros (\$3.38Bn) in the same period of 2018 amid a corporate overhaul.

During last year, Naturgy's transformation included the disposal of the gas distribution and supply business in Italy, the sale of the gas distribution business in Colombia and offloading of a minority stake in the gas distribution business in Spain.

Naturgy logged a 10.6 percent rise in nine-month gross earnings

to 3.29Bn euros (\$3.65Bn) from 3.24Bn euros in the same nine months of 2018.

Net sales during the nine months declined by 3.2 percent to 17.10Bn euros from 17.67Bn euros.

In its international LNG activities, the contribution to gross earnings from the maritime transport activity amounted to 139M euros versus 104M euros in 2018.

"LNG volumes sold declined by 18.4 percent from the same nine months in 2018 because of the reduction in short-term sales. Long-term sales continue to show a healthy growth (up 64.7 percent), supported by the commercial efforts intended to reduce margin volatility," said Naturgy.

Naturgy is one of the companies that have signed 20-year

agreements for US cargoes from Cheniere Energy's Sabine Pass and Corpus Christi plants and is also a main contract holder for cargoes from the Yamal LNG plant in Arctic Russia operated by natural gas company Novatek.

The US and Russian volumes were booked under Naturgy's previous name, Gas Natural Fenosa.

The Spanish company's diverse LNG supply portfolio also includes shipments from nations such as Algeria, Qatar and Nigeria. The company additionally owns a small fleet of LNG carriers.

"The first nine months of 2019 have been marked by growth in international activities and efficiencies across businesses, which have compensated for a more challenging energy scenario," said Naturgy.

"In the Gas and Power division, the first nine months have been driven by a notable improvement in services sales, which experienced a recovery of margins for power supply, offsetting a challenging scenario in international LNG and European power generation," said Naturgy.

"The company's new commercial policies and de-risking efforts, together with efficiencies, have also helped offset the low gas prices in recent months," it added.

The utility has also just invested 400M euros in the development of renewables projects.

"Indeed Naturgy has become one of the leading investors in clean technologies in Spain in the year 2019," it said.