LNG Unlimited

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Osaka Gas with world-class portfolio offers value chain know-how for region

From its base in Honshu's largest port, the company seeks LNG terminal building and consulting expansion

LNG Journal editor

The 'LNG Juno' is part of the Japanese company's fleet

Osaka Gas, the Japanese utility is advancing its strategy of US shale investments and with world-class LNG supplies backed by a gas-fired power generation model for Japan and Asia.

Osaka Gas, whose brand is under the Daigas Group banner, said in its latest strategy update that its proposed Himuka small-scale LNG import terminal planned for the far south of Japan's third-largest island Kyushu was on schedule for start-up in 2022.

Small-scale plan

The Himuka facility will supplying imported LNG to a new gas-fired power plant to replace coal power for chemicals company Asahi Kasei Corp.

The Osaka Gas onshore terminal is small-scale and could be replicated elsewhere in Asia.

The simple facilities will comprise the terminal jetty, one LNG tank and LNG vaporizers to enable supplies to the 35-megawatts power plant.

"We will leverage our value chain know-how to expand our energy business in Asia," explained Osaka Gas.

"The company will continue working toward winning orders for LNG terminal construction and consulting services outside our territory and overseas, by effectively applying the know-how acquired through our extensive experience," it said.

The utility and energy company aims to contribute to group profit growth by steady execution and expansion of East Texas shale-gas project through the Sabine Oil & Gas Corp.

The company, which imports around 10 million tonnes per annum of LNG, said it was additionally pleased to be the recipient of volumes from the Freeport LNG export plant on Quintana Island in Texas.

US power ventures are being targeting and it has a joint venture with General Electric in the 1,050 MW Fairview Energy Center project in Jackson Township in Pennsylvania.

Osaka Gas is also an LNG volume holder from projects in the Asia-Pacific region as well as the US. It has eight major suppliers and controls seven LNG carriers.

Its contracts are with plants such as the Chevron Corp.-operated Gorgon plant on Barrow Island in Western Australia and the Ichthys LNG plant in Australia's Northern Territory, operated by Japanese energy company Inpex Corp.

The Japanese utility has other long-standing LNG contracts with Qatar, Indonesia, Malaysia, Brunei, Papua New Guinea and Russia.

In Japan, Osaka Gas is involved in value chain operations in the Greater Tokyo area, including natural gas supply in Ogishima and thermal power generation in Fukushima.

The Fukushima gas power plant of 1,180 MW is scheduled to start up in several week in April, 2020.

The company said it was also working on upgrading and replacing ageing pipelines among its more than 20 high-pressure trunk lines and in Japan.

"We aim to enhance the resilience of gas distribution facilities for gas supply security and stability, speedy recovery from disasters, and efficient business operations," said the company.

"We will solve ageing pipeline issues for the execution of the advanced gas safety plan and will enhance capabilities of early recovery from disasters such as earthquakes, typhoons and heavy rains," it added.

UNLIMITED AGENDA

Fleet owner Höegh LNG reports market progress closer to normal despite the various challenges

LNG Journal editor

Höegh LNG, the Norwegian project company and fleet owner, said it was business as usual on the high seas, at import terminals for deliveries and production plants for liftings despite the challenges.

Höegh said that it had implemented a number of mitigating measures to secure the health and safety of its employees and ensuring safe and continued operations for its customers.

'Höegh Esperanza' has been on FSRU duty in Tianjin port

Progress

"The LNG markets are functioning more or less as normal and commercial activities are making progress," said Höegh President and Chief Executive Sveinung J.S. Stohle.

"Even with major populations being quarantined countries around the world need energy and electricity to function, where low-priced LNG and flexible LNG is an attractive solution," added Stohle.

Höegh said that like many other companies it had implemented a work from home policy for all onshore employees on a worldwide basis. At the same times all vessels had been locked down with no crew rotation and no visitors allowed onboard until further notice.

The Norwegian-listed company based in Bermuda said that all of its floating storage and regasificaion units (FSRUs) and conventional carriers are fully operational and manned according to relevant safety requirements.

"The technical availability for the fleet is close to 100 percent in the year to date," it added.

"All charter parties remain in full force and effect and the revenues from the contracts are maintained as per their contractual terms," stated Höegh.

Its operating assets include the "Höegh Esperanza" which resumed FSRU operations in Tianjin port in China in mid-November 2019 under charter to China National Offshore Oil Corp.

"Höegh is managing this unprecedented crisis in an efficient manner first and foremost thanks to the tremendous efforts by all the people working in our organisation, but also because the company has a robust crisis management system in place supported by modern IT solutions," said the CEO.

"All our assets are operating according to contracts and we are in close dialogue with all our customers to make sure any issues are addressed in a coordinated manner," added Stohle.

Höegh in its fourth-quarter earnings reported a total income of $94.2 million compared with $82.2M for the third quarter and $122.3M for the fourth quarter of 2018.

Stohle said at the time that the "competitive LNG price" clearly has a positive effect on LNG demand, supporting the case for additional import facilities, where FSRUs have an advantage due to the short time to market.

Höegh has been selected or has exclusivity for three FSRU contracts, including two projects in Australia and a third in south Asia.

In its Australian contracts, Höegh signed a conditional 10-year FSRU charter party with AGL Energy for its LNG import facility at Crib Point in the state of Victoria in southern Australia. ■

Shell given until May 31 by regulator to meet Australian offshore safety requirements for Prelude FLNG hull

Royal Dutch Shell has been given more time by the Australian regulatory authorities to meet additional safety requirements on its Prelude floating LNG export hull deployed offshore northwest Australia.

Shell was told that due to "mitigating circumstances" of the coronavirus, it had been given until May 31 to satisfy the list of requirements that followed a previous inspection visit.

The Australian regulator that has issued new directives to Shell is the National Offshore Petroleum Safety and Environmental Management Authority (Nopsema).

The Prelude FLNG hull, located 475 kilometres north-northeast of the town of Broome in Western Australia, started commercial operations in June 2019 and has capacity to produce 3.6 million tonnes per annum of LNG.

It is anchored in the Browse Basin and is the world's fourth FLNG venture to start operations.

According to Nopsema, Shell had made significant progress during the previous audit to ultimately comply with the regulations.

At the end of January 2020, Shell was asked to act on two particular issues on the Prelude hull.

It was firstly told, to conduct a detailed review of those aspects of the safety management system (SMS) that related to the safe isolation of plant and equipment and to identify the gaps with industry good practice.

Another directive told Shell "not to conduct intrusive activities into plant and equipment where the loss of containment as a result of that intrusive activity could result in risk to the health and safety of persons."

Nopsema had conducted an inspection that included the topic "Safe Isolation of Plant and Equipment". It said at the time that Shell's written aspects of the SMS were broadly consistent with good industry practice.

However, the report made 10 recommendations to improve minor gaps.

"Since September 2019 there have been three notifications of dangerous occurrences at the Prelude FLNG Facility that Nopsema inspectors attributed to deficiencies in the aspects of the SMS that relate to the safe isolation of plant and equipment," it added.

There are currently four FLNG production vessels in commercial operation worldwide. The first FLNG hull to enter production was one developed by Petronas of Malaysia and which has already been moved to a new stranded gas field location. ■

Transco owner Williams has plan to protect share value

The US owner of the Transcontinental Gas Pipe Line (Transco), the nation's largest interstate natural gas delivery system linking LNG export plants and domestic natural gas markets in 12 Southeast and Atlantic Seaboard states, has become the latest company to adopt protective measures from takeovers at a time of low equity prices.

Transco owner Williams, based in Tulsa, Oklahoma, has adopted a limited duration stockholder rights agreement for almost a year from March 30, known commonly as a "poison pill", to protect shareholders from the speculative acquisition of company shares at bargain prices amid current market volatility.

"In light of the company's strong position, the board wants to support the rights of shareholders and protect a fair value for their investment," said Chairman Steve Bergstrom.

"We are witnessing a unique dislocation in equity market valuations, with particular impact to Williams' equity value," added Bergstrom.

"We do not believe the best interests of shareholders are served by allowing those seeking only short-term gains to take advantage of current market conditions at the expense of the company and its long-term investors," stated the Williams Chairman.

The Williams board approved a dividend of one right for each common stock, effective March 30, and expiring on March 20, 2021. The rights become exercisable if a person or group acquires beneficial ownership of 5 percent more of Williams common stock in a transaction not approved by the Williams board. ■

First US West Coast LNG export plant approved in state of Oregon

LNG Journal editor

Pembina Pipeline Corp. of Canada said US regulators had approved its Jordan Cove LNG liquefaction and export plant at Coos Bay in the northwest state of Oregon as well its Pacific Connector Gas Pipeline project.

"Jordan Cove is the first ever US West Coast natural gas export facility to be approved by US Federal Energy Regulatory Commission," said Pembina.

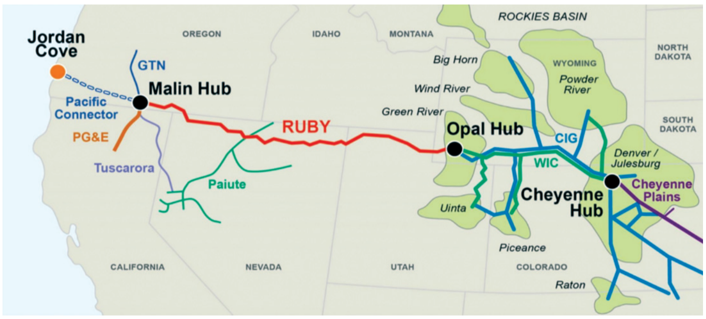
Significant

"This federal approval is a significant milestone for the project and for Pembina," added the Calgary, Alberta-based company.

Pembina acquired Jordan Cove in late 2017 in its takeover of another Canadian company, Veresen Inc., and has since been working towards obtaining extensive local, state and federal regulatory approvals.

The project includes a 230-mile pipeline which would traverse four counties in Southern Oregon on the route to the liquefaction plant.

The liquefaction plant and other facilities are planned for a 200-acre site and comprise five small-scale Trains each with 1.5 million tonnes per annum of output for a total of 7.8 MTPA.



Feed-gas will come from areas such as the Rockies Basin

The Jordan Cove venture's other facilities would include two full-containment LNG storage tanks with total capacity of 320,000 cubic metres, gas treating facilities, an export jetty and access to more than 25 billion cubic feet per day of gas supply from Western Canada and the US Rockies.

The US Coast Guard had already issued a Letter of Recommendation indicating that the Coos Bay Federal Navigation Channel would be considered suitable for the LNG marine traffic associated with the project.

The plant would be visited by about 120 LNG carriers per year and Pembina has confirmed that it had signed preliminary accords with Jera Co. Inc. and Itochu Corp. of Japan for the supply of LNG.

The project's affiliated Pacific Connector pipeline will have a 36-inch diameter with capacity to transport up to 1.2 billion cubic feet of natural gas per day.

The pipeline will originate at interconnections with existing pipeline systems in Klamath County, Oregon, and would span parts of Klamath, Jackson, Douglas, and Coos Counties before connecting with the export plant.

"Natural gas for Jordan Cove would be sourced at the Malin Hub, creating a new outlet for natural gas from areas such as the Rockies Basin," said Pembina. ■

Mexican Costa Azul project set to advance with second-quarter FID

Sempra Energy said its Mexican subsidiary would move forward in 2020 with the Costa Azul liquefied natural gas export project in the northern Pacific Coast state of Baja California with permits already in place to re-export as LNG pipeline supplies imported from the US.

Sempra said a final investment decision to transform the existing Costa Azul import terminals into an export plant would come in the second quarter, pushed back from the first quarter, though all preparations were on track.

"The current economic environment may impact the schedule," said Justin Bird, President of Sempra LNG. "However, the company remains confident in the long-term demand for LNG," added Bird.

Sempra subsidiary IEnova, or Infraestructura Energetica Nova SA as it is officially known, is overseeing the project.

Costa Azul will have its liquefaction capability constructed in two phases.

The first part of the transformation of the plant will see the building of a single liquefaction Train to be located adjacent to the existing terminal and with capacity for 2.4 MTPA of exports.

The Mexican project has already signed three accords with French major Total and Japanese companies Mitsui & Co. and Tokyo Gas for the full export capacity of Phase 1 development at Costa Azul.

The Costa Azul venture has additionally received US authorizations for natural gas to be exported to Mexico and re-exported to Non-Free Trade Agreement countries.

Costa Azul was the first LNG import terminal on North America's West Coast and was built in 2008 about 15 miles north of Ensenada and with bi-directional pipeline connects to the US. ■

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NEWS NUDGES

Greek LNG progress

Greek LNG developer Gastrade said the binding phase of a market test for reservation of capacity at the floating LNG terminal proposed for offshore Alexandroupolis in northeastern Greece was successfully completed. "With an aggregate long-term profile of binding offers for up to 15 years, reaching 2.6 billion cubic metres per year, Greek and international natural gas companies, as well as end-consumers, confirmed their interest in the reservation of regasification capacity at the FSRU terminal," said Gastrade.

Chinese natural gas

Chinese January-February domestic natural gas production rose 8 percent to 31.4 billion cubic metres with an average daily output of 520 million cubic metres, according to data from the National Bureau of Statistics. Imports of pipeline natural gas and LNG together reached 17.80 million tonnes compared with 17.36MT in Jan-Feb 2019, up 2.6 percent year on year. Domestic crude oil output rose 3.7 percent year on year to 32MT from January to February, while imports increased 5.2 percent from a year earlier to 86.09MT.

Finnish China order

WE Tech Solutions of Finland, the shipping consultancy and equipment provider offering energy efficiency designs, has received a repeat order from Jiangnan Shipyard Group Co. in China to deliver its "Solution Four" package for efficient power distribution for the third new battery and LNG-powered Pure Car Truck Carrier (PCTC) ordered by United European Car Carriers (UECC). ■

Russian Far East Sakhalin plant ships cargo 1,800 after 11 years

LNG Journal editor

Sakhalin Energy's plant shipped first cargo in March 2009

Russian natural gas company Gazprom said the 1,800th cargo departed from the Port of Prigorodnoye on Sakhalin Island in Russia's Far East from the liquefaction plant that is marking its anniversary after being over-shadowed for the last few years by the larger Yamal facility in the Arctic region.

Gazprom said the latest Sakhalin shipment was lifted by the 135,000 cubic metres capacity vessel "Hyundai Aquapia", 11 years after the first cargo departed on March 29, 2009.

The cargo was purchased by Korea Gas Corp. and is scheduled to be discharged on March 30 at the South Korean terminal at Incheon.

The main buyers of Sakhalin cargoes are Japanese, South Korean and Chinese energy companies.

The shareholders in the plant are Gazprom with 50 percent plus one share Royal Dutch Shell 27.5 percent minus one share and Japanese trading houses Mitsui and Co. with 12.5 percent and Mitsubishi Corp. with 10 percent.

The rival Yamal LNG plant with output of 16.5 MTPA from three Trains is operated by independent Russian natural gas company Novatek and also has overseas investors in French major Total and China National Petroleum Corp.

The company is also developing the Arctic LNG II project on the Siberian Gydan Peninsula with shareholders, including Total and from Chinese and Japanese companies. A long-planned expansion at the Sakhalin plant and the construction of a third liquefaction Train has so far failed to take place.

However, Gazprom notes that regular de-bottlenecking and equipment adjustments over the past 11 years has seen output raised to more than 11 million tonnes per annum from the nameplate capacity of 9.6 MTPA.

LNG cargoes produced and marketed by operating company by Sakhalin Energy are supplied on a free-on-board basis and shipped by the company's LNG carriers, "Grand Elena", "Grand Aniva" and "Grand Mereya". ■

Russia offers tax breaks to boost LNG and oil in Siberia

Russia has brought in tax breaks for Arctic region liquefied natural gas and oil projects proposed for Northern Siberia where increased output will help take the Russian LNG export total to 75 million tonnes per annum.

The tax relief will primarily benefit independent natural gas producer Novatek, operator of the three-Train Yamal LNG plant at Sabetta, with nameplate capacity of 16.5 MTPA, and developer of the Arctic LNG II project on the Gydan Peninsula, which will have 20 MTPA of output.

The new Russian law also includes taxation support for the Vankor oil and gas fields being developed by state-backed oil company Rosneft.

Under the new law, taxes on all new Arctic Shelf oil recovery projects will be reduced to 5 percent for the next 15 years and the tax percentage falls to 1 percent or lower for all new natural gas projects.

The law also stipulates that oil drilling in the eastern Arctic will be even more advantageous for investors and will incur a zero-level production tax.

Onshore natural gas developers in northern Siberia, such as Novatek's, will also have a zero-percent mineral extraction tax for the next 12 years.

The cost of the Arctic LNG II project, matching Novatek's Yamal plant, is estimated at more than $20 billion and the venture ncludes Russian, French, Japanese and Chinese investors.

A final investment decision on Arctic LNG II was taken in September 2019.

The joint venture participants in addition to Novatek include French energy major Total, a shareholder in Novatek.

The Asian investors are two Chinese majors, China's National Petroleum Corp. and China National Offshore Oil Corp., Japanese state body, Japan Oil, Gas and Metals National Corp. (Jogmec) and Japanese trading house Mitsui & Co.

Novatek's Arctic joint venture proposes constructing three liquefaction Trains, each with output of 6.6 million tonnes per annum using gravity-based structure platforms made of concrete and attached to the sea floor. ■

Swedish refiner Preem signs bunkering fuel deal with Gasum for two LNG-powered oil-chemical tankers

LNG Journal editor

Preem, the Swedish refining company and fuel exporter, signed an agreement with Gasum of Finland to purchase a new liquefied natural gas blend containing 10 percent biogas to fuel two LNG-powered oil-chemical tankers.

Gasum is the largest LNG distributor in the Nordic region for LNG and biogas truck fuel and a leading LNG bunkering provider for Baltic and North Sea shipping.

Exporter

Preem has two refineries and supplies gasoline, diesel, heating oil and renewable fuels to companies and consumers in Sweden, though exports two-thirds of its production.

State-owned Gasum said its deal with Preem is the first involving a blend biogas made from waste, and which some refer to as renewable fuel, to a maritime customer on a regular basis.

Preem's vessels to be supplied with Gasum's blend of blended LNG maritime fuel are the LNG-powered and time-chartered tankers "Tern Ocean" and "Thun Evolve".

'Thun Evolve' is a small-scale tanker chartered by Preem

The "Tern Ocean" is 14,827 deadweight tons and carries oil and chemicals and is Danish-flagged.

The second vessel, the Dutch-flagged "Thun Evolve", is also an oil-chemical tanker but is smaller at 7,999 Dwt.

"Maritime transport is an important part of Preem's operations," said Anna Karin Klinthäll, Manager of Trading Operations at Preem.

"We are very pleased to be able to introduce renewable liquefied biogas into our fuel mix," she added.

"This opportunity supports our high-end sustainability requirements," stated Klinthäll.

Using LNG as maritime fuel reduces emissions of greenhouse gas (GHG) by up to 20 percent when compared to conventional fuel.

LNG is the most environmentally friendly fossil shipping fuel, meeting both current and long-term environmental requirements set by the International Maritime Organization.

"Gasum is committed to working for a carbon-neutral future and helping our customers to reduce their own carbon footprint by providing cleaner energy," said Jacob Granqvist, a Maritime business executive for Gasum.

"We are happy to support Preem towards greener shipping and particularly their vision of leading the transition towards a sustainable society," added Granqvist.

Preem supplies more than half of Sweden's industrial companies and one third of the small companies with heating and energy products.

It also has a nationwide service network with some 570 fuel stations for cars and commercial vehicles.

Preem's two refineries employ 950 workers at Gothenburg and Lysekil.

Japan LNG drop set to continue this year

Japanese liquefied natural gas imports dropped last month and the nation's cargo costs fell along with lower LNG prices while thermal coal deliveries were preferred for power generation.

Japan imported 6.64 million tonnes of LNG in February 2020, down 9.6 percent from the 7.35MT received in February 2019.

The Japanese had imported 7.51MT in January 2020, down 0.5 percent from the 7.54MT received in January 2019.

The shipments cost the nation 351.42 billion yen ($3.26Bln), 24 percent lower in yen terms than the import bill for February 2019 when it was $462.22Bln yen ($4.13Bln), according to the preliminary figures from the Japanese Finance Ministry.

Thermal coal imports, a major replacement for LNG in the power sector, came to 9.14MT in February 2020, down just 1.6 percent on the 2019 figure and in line with the January 2020 shipments.

The country's imports of LNG fell for the whole of last year to 77.32MT, which was 6.7 percent lower than the 82.85MT of shipments that arrived in 2018.

The costs of cargoes sent to Japan amounted to 4,354 billion yen ($39.72Bln) in 2019, down 8.1 percent from the previous year.

Annual thermal coal shipments came to 111.05MT in 2019, down just 2.2 percent on the 2018 total.

Asian LNG cargo deliveries from nations such as Malaysia and Indonesia, Papua New Guinea and Brunei amounted to 1.66MT in February 2020, down 18.7 percent on the same month a year ago.

Middle East deliveries from countries like Qatar, the United Arab Emirates and Oman came to 1.31MT, a drop of 15.1 percent. ■

Indian LNG imports continue to rise with regas capacity

LNG Journal editor

Indian liquefied natural gas imports jumped by more than 67 percent last month to 40 cargoes as import capacity gradually increases to handle the shipments, mainly from Qatar, Australia, the US and Africa.

LNG imports for the month of February amounted to 2.55 million tonnes (3.45 billion cubic metres), which was 67.5 percent higher than the 1.52MT recorded in February 2019.

Volumes received in January had come to 2.05MT, about 25 percent up on the 1.64MT received in January 2019.

For the first 11 months of the fiscal year, Indian LNG imports surged 16.9 percent to 27.80MT compared with 19.50MT in the period from February 2018 to the end of March 2019, according to the Indian Ministry of Petroleum and Natural Gas.

The main operating terminals on India's West Coast are at Dahej, Hazira and Dabhol, near Mumbai. The newest terminal at Mundra is north of Mumbai and is now operational and awaiting more shipments.

The 'Raahi' does shuttle deliveries from Qatar to Dahej

There is additionally the Kochi facility in the southwest state of Kerala and one East Coast terminal at Kamarajar, 25 kilometres north of Chennai Port in Tamil Nadu, and also known as Ennore.

The total of LNG imports has been rising towards 250 cargoes a year as more infrastructure is constructed, including pipelines to reach more industrial and city-gas customers. The Ministry noted that February 2020 imports cost $900 million compared with $700M in February 2019 on higher volumes.

Costs for the fiscal year to date came to $8.8 billion versus $9.5Bln in the first 11 months of 2018-2019.

Domestic natural gas output for February 2020 was 2.341 Bcm, down 8.8 percent from the 2.82 Bcm logged in February 2019. ■

Petronet shares fall after claims of corruption received by minister

The Indian Ministry of Petroleum and Natural Gas said it had received several complaints of alleged corruption and irregularities against senior executives of Petronet LNG, the owner of two import terminals.

Petroleum Minister Dharmendra Pradhan said in a written reply to a question in the Indian lower house of Parliament, the Lok Sabha, that among those complained about was Petronet Chief Executive Prabhat Singh.

The Minister said that the complaints against the CEO and other executives had been forwarded to the Chairperson of Audit Committee of Petronet for appropriate action.

Petronet shares are listed on the Bombay Stock Exchange and fell 5.5 percent on March 24 to 179.20 rupees after the allegations were made and had been at 189.70 rupees at the previous close.

The shares have declined in the past six months along with other energy stock and had reached a 52-week high of 302 rupees on the 23rd of September 2019.

Petronet is India's largest LNG importer and CEO Singh has been at the helm since September 2015.

His five-year term comes to an end in six months from now and he is eligible for a two-year extension of service until he achieves the age of 65 years.

"Several complaints have been received in the Ministry of Petroleum and Natural Gas against MD & CEO, PLL and other officers of PLL regarding alleged corruption-irregularities," said the official statement.

Asked if the government has conducted any audit of the accounts of Petronet regarding the irregularities during the last three years, the Minister said that Petronet was board-managed company and not a government company as per the Companies Act.

Petronet currently operates India's busiest regasification facility at Dahej, north of Mumbai, with 17.5 million tonnes per annum of capacity and six storage tanks. ■

China's CNOOC posts jump in annual profits helped by natural gas rise and timely start-ups

LNG Journal editor

China National Offshore Oil Corp., the state-backed oil and gas producer and the nation's largest LNG import terminal owner, said annual net profits rose almost 16 percent as it achieved record production in 2019.

"Total net oil and gas production of the company amounted to 506.5 million barrels of oil equivalent, exceeding 500 million Boe for the first time as multiple projects safely commenced production ahead of schedule," said CNOOC.

Chairman Wang Dongjin has active development plans

Net income

CNOOC said net profits rose by 15.9 percent to 61.05 billion Chinese yuan ($8.6Bln) compared with 52.67Bln yuan ($7.42Bln) because of volume growth and effective cost control.

In relation to the changed oil market and the plunge in prices, along with other challenges in 2020, CNOOC said it would keep a close watch on events.

"CNOOC will closely monitor the trend of the international crude oil markets and changes in the macroeconomic environment," said the company.

"It will conduct in-depth research, timely formulate and take counter-measures and strive to maximize shareholder value," it added.

Its marketing revenues, including LNG imports at its nine regasification terminals, dropped 13.9 percent to 30.86Bln yuan ($4.34Bln) compared with 35.83Bln yuan ($5.05Bln) in 2018.

The company said its average realized oil price was US$63.34 per barrel, down 5.8 percent year-over-year.

CNOOC's annual natural gas production rose 5.2 percent to 561.3 billion cubic feet.

The average realized natural gas price was US$6.27 per thousand cubic feet, down 2.2 percent from the previous year.

CNOOC's oil and gas sales revenue reached 197.2 billion yuan ($27.2Bln), an increase of 5.7 percent compared with 2018.

The company said that last year it had continued to strengthen its exploration and development efforts, and the workload reached a record high.

Beijing-based CNOOC, which is listed on the Hong Kong Stock Exchange, said that during the year there were 23 commercial discoveries made and 30 oil and gas bearing structures were successfully appraised.

"The appraisal of Bozhong 19-6 condensate gas fields in offshore China made a breakthrough again, with newly-added proved in-place volume of nearly 200 million cubic metres of oil equivalent," explained the company.

CNOOC also made progress in its overseas exploration and production activities.

"Five new discoveries were made in Stabroek block in Guyana, with aggregate recoverable resources of more than 8 billion Boe," said CNOOC. ■

Chinese gas company ENN Energy boosts city franchises and small-scale distribution profits

ENN Energy Holdings, the Chinese city-gas company and owner of the Zhoushan LNG import terminal in eastern Zhejiang province, reported a jump in annual profits and increased retail gas sales.

ENN posted annual revenues of 70.18 billion yuan (US$9.9Bln) a 15.6 percent increase on the 60.69Bln yuan US$8.58Bln) of income recorded in the previous year.

Sales jump

"The increase was mainly driven by the robust growth of natural gas sales, the integrated energy business and value added activities," said ENN.

The company said its profits from pipeline natural gas, city-gas supplies and a growing gas-fuel business for vehicles increased by 18 percent to 5.27Bln yuan (US$746 million) from 4.47Bln (US$632M) during the year.

ENN, which is listed on the Hong Kong stock exchange, said profits attributable to owners of the company doubled to 5.6Bln yuan (US$802 million) from 2.81Bln yuan (US$398M) the previous year.

"The surge in net profit was attributable to the strong growth of the group's core businesses mentioned above and the improvement of its operating efficiency," explained ENN.

"In addition to that, oil price movements also led to a large fair value change of the derivative contracts which were used to hedge the group's long-term liquefied natural gas contracts," it added.

ENN's retail natural gas sales volumes rose 14.7 percent in the year to 19.92 Bcm cubic metres, the equivalent of almost 15 million tonnes of LNG, from 17.37 Bcm the previous year.

At year-end ENN had a total of 217 city-gas franchises spanning 22 provinces and added 30 more during the year.

"The Group upheld its customer-oriented philosophy, dug deep into the existing customer base and explored new customers with potential demand," said ENN.

"Most of the ENN's franchises are located in key areas of air pollution prevention and control, including Beijing-Tianjin-Hebei, Henan, Shandong, Jiangsu, Zhejiang, Guangdong, where local governments strictly implement environmental protection policies," it explained.

ENN said it took advantage of strategic positioning of its Zhoushan LNG import terminal to expand its wholesale and retail gas businesses.

"We distributed LNG to downstream customers such as small-scale gas distributors and retail gas users outside its city-gas concessions, to LNG refuelling stations and to power plants," added ENN.

The company said that its final dividend per ordinary share would be 43.3 percent higher than the previous year at HK$1.67 (US$0.21) versus HK$1.19 (US$0.15) in 2018. ■