

Santos reports higher volumes and more CSG wells for Gladstone LNG

Adelaide company posted record output which was up by 28 percent
LNG Journal editor

Australian energy company Santos reported average LNG prices of over US\$9 per million British thermal units in the fourth quarter and higher sales at the Gladstone export plant in Queensland, driven by stronger upstream equity gas production and a record 393 coal-seam gas wells drilled.

Santos, based in the city of Adelaide, said annual production of 75.5 million barrels of oil equivalent was a record and 28 percent above the prior year.

Prices

Santos said that during the fourth quarter it sold LNG at an average price of US\$9.07 per million British thermal units compared with US\$10.04 in the third quarter and \$10.96 per MMBtu in the same three months a year ago.

The company also logged record annual sales revenue of over US\$4 billion, an increase of 10 percent, generated from volumes of 94.5 million barrels of oil equivalent.

Gross GLNG-operated upstream sales gas production increased at the end of the quarter, supported by continued steady growth from Roma and Arcadia.

"Drilling continues in the Roma East project with 327 wells drilled and 302 wells online to date," said Santos.

"A record number of wells were drilled and connected in 2019: 393 wells were drilled (29 percent higher than 2018) and 431 wells were connected (44 percent



CEO Gallagher is optimistic on McArthur Basin potential

higher than 2018)," added Santos.

"Sixty-two development wells were drilled across Santos' non-operated Eastern Queensland acreage in the quarter," it stated.

CSG-to-LNG projects each require feed-gas resources from several thousand CSG wells over the lifespan of the plants.

The fourth quarter was marked by the acquisition of the ConocoPhillips business in northern Australia and Timor-Leste comprising the single-Train Darwin LNG plant as well as the Bayu-Undan, Barossa and Poseidon gas field stakes.

The purchase was valued at US\$1.39 billion, plus a US\$75 million contingent payment subject to a final investment decision on the Barossa project. It was fully-funded from existing cash resources and new committed debt.

Santos had an existing stake in Darwin LNG. It is also a shareholder in Papua New Guinea LNG and its expansion plan, as well as being operator of GLNG plant on Curtis Island, near Gladstone.

During the fourth quarter, PNG LNG shipped 28 cargoes, a further 22 shipments departed from GLNG and 11 were shipped by Darwin LNG.

"The year was highlighted by

highest ever free cash flow of more than \$1.1 billion, record onshore drilling performance, lower unit production costs and significant progress on our diversified portfolio of growth projects," said Santos Chief Executive Kevin Gallagher.

"Santos delivered record annual production and revenues in 2019, and lower unit production costs, clearly demonstrating the effectiveness of our disciplined, cash generative operating model," added the CEO.

"The acquisition of ConocoPhillips' natural gas assets in northern Australia and Timor-Leste announced in October is fully aligned with our growth strategy to build on existing infrastructure positions and delivers operatorship and control of strategic LNG infrastructure at Darwin," explained Gallagher.

The CEO said that in the Northern Territory of Australia, there were better than expected gas flow rates from the ongoing Tanumbirini-1 vertical well test.

He added that this was very encouraging and an important step in the appraisal by the company of the significant resource potential of the McArthur Basin.

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Argentine President hopes for more progress with Vaca Muerta shale and LNG project development

LNG Journal editor

Argentine President Alberto Fernandez said he would send a bill to Congress to attract investment for the production of conventional and unconventional hydrocarbons in the world-class Vaca Muerta shale formation.

The announcement came after Fernandez, a centre-left politician who took office at the beginning of December, held a meeting with executives from the main energy companies present in Argentina.

Framework

These included Argentina's state-owned Yacimientos Petroliferos Fiscales (YPF), and its company President Guillermo Nielsen.

"I will send a bill that will establish a regulatory framework to allow for the exploitation of conventional and unconventional hydrocarbons," said the Argentine leader.

For now, only about 1,000 wells have been drilled, 300 or so of which have been fracked in the



Floating liquefaction vessel 'Tango FLNG' in Bahai Blanca

Vaca Muerta Shale. Covering a region the size of a small European country, it has become one of the world's leading shale basins and has attracted international companies such as US majors Exxon-Mobil and Chevron Corp., Qatar Petroleum, French major Total and Equinor of Norway.

Both the previous and current governments are seeking to increase output to boost export revenues.

YPF also last year started its first small-scale LNG production

from a floating liquefaction facility, "Tango FLNG", and this was quickly followed by its submission to the government of a request to promote development of an on-shore LNG liquefaction plant.

The proposals are for a pre-front-end engineering design for a liquefaction plant with 5 million tonnes per annum of LNG capacity and with the option to expand to 10 MTPA. This could also be the blueprint for other plants.

Analysts said that in that context, developing the country's large

reserves of natural gas, both in shale and tight gas reservoirs, presents an opportunity to overcome short-term pricing issues.

Recent developments such as difficulties with servicing its sovereign debt have investors concerned that Argentina is backsliding after years of market-oriented reform.

Activities by both YPF and the international companies resulted in a 95 percent shale-gas production growth from May 2017 to mid-2019.

The Argentine natural gas market is also going through a transition, specifically with regards to price formation.

While productivity has improved as a result of increased fracking stages and longer laterals, production costs at the Vaca Muerta shale formation are still too high for international markets.

In 2019, YPF reported declining costs of \$3.72 per million British thermal units, down from \$4.65 per MMBtu a year earlier.

Plans emerge for British Columbia LNG exports to be processed by plant in Alaska waters

A new North American LNG company said it was proposing to build a \$12 billion LNG export plant in Southeast Alaskan waters near the Canadian port of Prince Rupert in British Columbia.

The company is called AlaskCAN LNG and the President is Byng Giraud, a former Vice President of the Canadian Woodfibre LNG project proposed for the district of Squamish in British Columbia.

Giraud, who outlined the project plans to Public Service Broadcasting in Alaska. According to Giraud, AlaskCAN LNG hoped to capitalize on natural gas trapped in northern British Columbia.

"With the shale gas revolution, directional drilling and all those technological advances of the past 15 years, we're awash with gas,

and so that gas is looking for a market," he said.

Giraud said his company was investigating sites in Southeast Alaska just over the border from BC.

The idea is to take the gas from northern BC, liquefy it on a floating platform attached to a small island and put up to 12 million tonnes per annum of LNG on ships bound for Asia.

Giraud added that there was also domestic market potential for the BC LNG in Alaska.

"Certainly, it could help a lot of Alaska communities and remote mining projects, that sort of thing, maybe switch from diesel to natural gas," he explained.

Giraud also stated why the liquefaction plant would be better suited to Alaska rather than BC.

"We like the Alaska side, partially because it makes the pipeline shorter. It saves about 60 kilometres. And Alaska has a fairly clear and robust permitting process," he stated.

The Giraud-run project would be a third LNG export proposal for Alaska.

The first is Alaska LNG, led by Alaska Gas Line Development Corp, and the second is Qilak LNG, an Alaska-based firm whose Chief Executive is the former deputy governor of the US state Mead Treadwell.

Qilak has signed a Heads of Agreement with ExxonMobil Corp. on the potential supply of natural gas from the Point Thomson field in Alaska's North Slope to a near-shore floating LNG export plant.

Qilak said the agreement foresees ExxonMobil providing at least 560 million standard cubic feet per day of natural gas to the first phase of the project, based on the design concept of offshore liquefaction and loading and ice-breaking LNG carriers.

The project envisages exporting around 4 MTPA of LNG under a future firm 20-year supply deal with ExxonMobil.

According to Treadwell, the Qilak project would deliver on Alaska's long-held goal of commercializing North Slope natural gas.

Qilak said it would now begin more feasibility studies and make preliminary permit applications with a planned final investment decision in 2021.

Germans to transition with pipeline gas and LNG

Germany, the largest natural gas pipeline consumer in the European Union and a future LNG importer, is set to be the first country to end both nuclear and coal power under an agreement to compensate workers, companies and regional governments as it switches off coal-fired plants by 2038.

The Berlin government said it had concluded a deal worth more than 40 billion euros (\$44.5 billion) with the premiers of Germany's coal-mining regions.

Designed to ensure Europe's largest economy meets its 2030 target for cutting greenhouse-gas emissions, the exit from coal will also be accompanied by increased investments in renewable energy such as wind power.

Germany is one of the main customers for pipelines from both Russia and Norway and although it has the largest economic in the European Union.

However, it is one of the few larger EU nations currently without LNG import capability, though two are planned, one on the Elbe River near Hamburg and another at the North Sea port of Wilhelmshaven.

Analysts said that the decision marks a major turnaround for Chancellor Angela Merkel's conservative-Social Democrat coalition.

"These were tough negotiations," said Environment Minister Svenja Schulze.

"But you can see the result - we are the first country that has a binding agreement to exit coal and nuclear power - and that's an important signal internationally," added Schulze.

Beijing Gas LNG import plans for Tianjin port are approved

LNG Journal editor

Beijing Gas Group has obtained the government's approval to construct a liquefied natural gas import terminal with huge storage tank capacity in the Nangang district of Tianjin city, giving the port of Tianjin three facilities to guarantee energy supply security to the Chinese capital.

The terminal will have an initial 5 million tonnes per annum of capacity and adds to the supply available from Sinopec's Tianjin North import terminal and the Floating Storage and Regasification Unit capacity deployed in recent years by China National Offshore Oil Corp.

Bank loan

Asian Infrastructure Investment Bank (AIIB), backed by the Chinese government, said in December 2019 it was investing \$500 million in a new LNG import project near Tianjin port under the management of state-run Beijing Gas to help support efforts to reduce air pollution.

With a population of around 113 million, the Beijing-Tianjin-Hebei region is one of the most important economic engines within China and has increasing



Group is engaged in city-gas distribution around Chinese capital and will now have own regasification facility

natural gas demand. It is also an area where the Chinese government has concentrated its "Blue Skies" policy to reducing coal consumption will also deliver the co-benefit of improving air quality.

Beijing Gas is mainly engaged in city-gas distribution and supplies more than 10 billion cubic metres per annum to the Chinese capital and surrounding areas.

The AIIB said in extending the loan to Beijing Gas that the region can meet its environmental commitments and still ensure adequate gas supply to maintain peoples' livelihoods.

The new Tianjin terminal project has also been approved by the National Development and Reform Commission.

Beijing Gas said its terminal in Tianjin was expected to be completed by 2022 and will include emergency reserves comprising 10 extra storage tanks with 200,000 cubic metres capacity each.

The new Tianjin terminal will also have a jetty to receive the largest carriers of 260,000 cubic metres capacity. There will also be a pipeline of 230 kilometres to send regasified LNG supplies to gas storage facilities near Beijing.

Japanese LNG imports drop from most areas amid coal use surge

The Japanese Finance Ministry has provided official confirmation that liquefied natural gas imports dropped in 2019 with only Australian and US and spot cargo numbers improving, while in December LNG shipments declined as thermal coal imports surged.

Japan imported 77.32 million tonnes of LNG in 2019, 6.7 percent down on the 82.85MT received 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.

The December imports amounted to 6.08MT, which was 6.2 percent lower than the 7.25MT received in December 2018.

Thermal coal imports, a major replacement for LNG in the power sector, came to 10.77MT in December versus 8.93MT in the same month of 2018, a jump of 20.6 percent. Annual thermal coal shipments came to 111.05MT, 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 17.87MT, 13.5

percent lower than in the previous year.

Annual Middle East deliveries from countries like Qatar, the United Arab Emirates and Oman came to 13.79MT, a drop of 23.2 percent.

Shipments from Russia, mostly from the Sakhalin Island plant in the Far East, amounted to an annual 6.39MT, down 4.1 percent. US cargo deliveries to Japan continue to rise as more capacity comes on stream and came to 3.69MT in 2019, up 48.2 percent.

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NEWS NUDGES

Henry Hub at 20-year Jan low

The US shipped 15 LNG cargoes from its export plants in the past week compared with 14 the previous week. Seven shipments left Cheniere Energy's Sabine Pass plant in Louisiana, while two departed from Cheniere's Corpus Christi facility in Texas. At the three other plants, one was shipped from the Freeport plant in Texas, one left from Dominion Energy's Cove Point in Maryland and four departed from Semptra Energy's Cameron facility in Louisiana, according to the Energy Information Administration.

Malaysia-China LNG deal

Malaysian oil and gas company Petronas has signed an agreement with the Chinese state-owned energy firm, Shenergy Group, to supply around 1.5 million tonnes per annum of LNG to Shenergy's Wuhaogou facilities near Shanghai. The heads of agreement is for a 12-year term starting from 2022 and will involve a shipping collaboration to construct and charter new mid-sized LNG vessels for the cargo deliveries. Petronas has been a major LNG supplier to Shenergy's subsidiary, Shanghai LNG Co., since 2006.

Greek LNG bunker order

Greek company Probunkers said it had agreed terms with Hyundai Mipo Dockyard of South Korea for the construction of two LNG bunkering vessel, each with 7,600 cubic metres of capacity. The accord in the form of a letter of intent came after a long process during which the Greek firm's technical team reviewed more than 30 ship design proposals. Probunkers said the initial agreement with the Korean yard underlined its aim of bringing quality and reliability to customers.

TechnipFMC split is still on track for the first half of 2020

LNG Journal editor

TechnipFMC, the LNG and energy engineering company, reaffirmed that its planned transaction to separate into two companies, TechnipFMC and Technip Energies, is well on track for completion in the first half of 2020.

The company anticipates completing the transaction in the second quarter of 2020 and intends to host a capital markets event in Paris for Technip Energies before completion of the spin-off.

EPC player

TechnipFMC is one of the leading engineering, procurement and construction companies whose current contracts include projects in the US, as well as the Russian Arctic LNG II project proposed for the Gydan Peninsula and the Mozambique LNG joint venture in southeast Africa.

TechnipFMC said in August 2019 that it had decided to spin off its European-based engineering and construction operations into a separate business, leaving the Houston-based half of the firm as a technology-focused equipment



TechnipFMC will have a dedicated LNG sector company after the split. Past projects include Yamal LNG in Russia

supplier to the oil and gas sector.

The strategy is to reverse the 2017 merger of Technip of France and FMC Technologies of the US, a transaction valued at the time at \$20Bln as it created TechnipFMC as a fully-integrated subsea provider.

TechnipFMC also said the European Union Prospectus for the spin-off of Technip Energies will now include audited IFRS financial statements for Technip Energies for each of the fiscal years ended December 31, 2016 through 2019.

"In order to provide financial statements for the full year 2019, which will afford greater visibility into recent historical performance,

the company anticipates the release of its EU Prospectus after its annual filings," said the company.

"In addition to the approval of the EU Prospectus by the Dutch Authority for the Financial Markets (AFM), the successful completion of the planned spin-off also remains subject to general market conditions, regulatory approvals, and final Board approval," it said.

"While awaiting receipt of all final approvals, the company and its employees will stay focused on delivering operational excellence and world-class service to its clients," added TechnipFMC.

Annova LNG project signs deal to line up Texas feed-gas

The US Annova liquefied natural gas export project planned for the south bank of the Brownsville Ship Channel in Texas, and whose owners include Chicago-based power company Exelon Corp., has signed an accord to arrange feed-gas deliveries from the Agua Dulce hub in Texas.

The Annova project is expected to ship around 6.95 million tonnes per annum from its proposed liquefaction and plant planned as part of the second wave build-out for exports.

The joint venture proposes the construction of six small-scale liquefaction Trains as well as an interconnected pipeline and marine

export facilities. Annova said it signed a precedent agreement with Enbridge Inc. affiliate, Valley Crossing Pipeline, LLC (VCP), to providing transportation for its total feed-gas requirements.

The project's investment-grade equity owners including Exelon, Black & Veatch Corp. of Kansas and Kiewit Corp. of Nebraska.

Annova's strategy is to offer volumes to mid-scale customers who are seeking to buy increments of 1.0 MTPA.

The accord proposes that the existing Valley Crossing Pipeline from Agua Dulce to Brownsville will be expanded along with the construction of a nine-mile lat-

eral connecting VCP to Annova liquefaction plant.

"Annova LNG's firm transportation arrangements will ensure security of supply and access to the most diversified, low-cost feed gas of any of the US LNG facilities," said Omar Khayum, Chief Executive of Annova.

"We will be the most sustainable and reliable provider of LNG from the United States," added Khayum.

The LNG facility also plans to use electric-driven compressor engines and source its electricity through 100 percent carbon-free renewable energy resources.

Repsol of Spain reports good low-sulfur IMO provision sales amid LNG fuel bunkering plans

LNG Journal editor

Spanish energy company Repsol, a maritime fuel sector participant with plans to re-fuel Spain-UK ferries with LNG, said the International Maritime Organization sulfur curbs had led to it selling around 150,000 metric tons of low-sulfur fuel at Spanish ports and nearly 1 million tons in Singapore.

At the beginning of 2020, new regulation from the IMO entered into force, aimed at reducing emissions in maritime transportation.

Demand

Repsol said that to satisfy the high demand for new fuels, it has one of the most competitive refining systems in Europe and one of the most active sales teams on the market for these products.

The company said it was producing this new type of maritime fuel at its refineries in Spain and Peru and selling low-sulfur fuel oil at Spanish port such as Algeciras, Barcelona, Valencia and La Coruña, as well as in the Asian port of Singapore.

Repsol has also signed a deal to supply LNG to Brittany Ferries, the shipping line connecting passengers and freight in France, Spain, the UK and the Republic of Ireland. Brittany Ferries requires the volumes for three LNG-powered newbuilds.



Cleaner maritime fuel sales have increased in ports such as Singapore for vessels of all types and sizes

Repsol is building two LNG bunker terminals at the north-west Spanish ports of Bilbao and Santander.

The LNG bunker agreement between Brittany Ferries and Repsol provides the basis for the long-term supply of LNG maritime fuel and key shoreside infrastructure to the new LNG-powered cruise ferries "Salamanca" and "Santoña", which are scheduled to enter service from 2022.

The two vessels will be delivered after the first LNG-powered ferry, the "Honfleur" currently under construction in Germany, enters service in 2020.

Each terminal will include an intermediate storage tank of 1,000 cubic metres to guarantee an uninterrupted supply.

The ferries "Salamanca" and "Santoña" will serve on routes linking Portsmouth in the UK to northern Spain, beginning in 2022.

"Repsol supports all measures that help make transportation more sustainable," said José Correa, Director of Crude Oils and Heavy Products at Repsol.

"And the strategy pursued in accordance with this regulation, placing our bets on a line of maritime fuels that produce less sulfur oxide (SOx) emissions, is framed by our recently announced commitment to become a net zero emissions company by 2050," added Correa.

The new IMO specification, known as IMO 2020, which regulates maritime traffic worldwide, will restrict the maximum sulfur content of maritime fuels used in international waters to 0.5 percent, a significant reduction from its current 3.5 percent.

The International Energy Agency had forecast that Very Low Sulfur Fuel Oil (VLSFO) will replace at least half the volume of High Sulfur Fuel Oil (HSFO) that was

consumed as bunker fuel in 2019.

"The drastic fall in HSFO demand has severely lowered its market price, as well as that of the crudes used to produce this product (heavy and medium crudes with a high sulfur content)," said Repsol.

"In addition, the increase in marine gasoil demand will lead to a rise in the market price of gasoils," added the company.

Repsol's refineries in Spain are in the top 25 percent in Europe in terms of conversion capacity.

Four of its five refineries in Spain are equipped with cokers, industrial plants that enable the facilities to make use of the heavy part of the crude to transform HSFO components into fuels with greater added value, chiefly distillates and gasolines.

Repsol's sixth refinery, located in La Pampilla in Peru, has required additional efforts in order to adapt to this new context.

"Repsol's advantage is also based on the capacity of our refineries to process heavy crudes (a high-sulfur raw material that will become cheaper) as well as on the demand for distillates which will go up in price as they will be needed to produce fuel with a 0.5 percent sulfur content or will be used directly as maritime fuel," explained Juan Carlos Ramírez, Director of Scheduling and Logistics for Refining Operators.

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Rescue plan approved for US company McDermott

McDermott International, the US energy and engineering company, said it had received approval for a comprehensive restructuring plan supported by more than two-thirds of all its funded debt creditors.

The equity-for-debt plan would eliminate more than \$4.6 billion of McDermott's debt.

The restructuring transaction will be implemented through a pre-packaged Chapter 11 process, which under US law gives protection from bankruptcy.

It will be financed by a debtor-in-possession (DIP) financing facility of \$2.81 billion.

McDermott is involved in some of the world's leading LNG construction projects, including several on the US Gulf Coast and the North Field Expansion in Qatar.

Currently McDermott is working with other firms on both the Cameron LNG project at Hackberry in Louisiana and the Freeport export facility at Quintana Island in Texas.

McDermott has additionally been engaged as a contractor on the Golden Pass LNG export project for Qatar Petroleum and ExxonMobil venture in Texas.

"Subject to court approval, McDermott expects the DIP financing, combined with cash generated by McDermott, to enable the company to stabilize its cash flows, continue operating in the normal course and fulfil its commitments to key stakeholders, including customers, suppliers, joint-venture partners, business partners and employees," stated the Houston-based company.

McDermott has additionally secured committed exit financing of over \$2.4Bln in letter of credit facility capacity and will emerge from Chapter 11 with around \$500 million in funded debt.

Saudis and Wood of UK seek to deliver shale and tight gas

LNG Journal editor

Wood, the UK-based oil and gas services company, said it secured a two-year extension to contracts with Saudi Aramco's subsidiary, Aramco Overseas Company, for its unconventional natural gas programme covering shale gas and tight gas reservoirs.

Wood said its project execution teams would continue to work closely with Saudi Aramco to develop innovative engineering design and implementation strategies to deliver the programme's primary objective - to produce and deliver significant volumes of gas from shale and tight reservoirs.

Cleaner burn

"Unconventional gas is key to meeting the Kingdom of Saudi Arabia's growing energy needs, with cleaner burning natural gas for domestic power generation," said Wood, whose original contract dates from 2014.

Wood explained that developing unconventional resources required logistics that differ from those of standard conventional gas as well as a bespoke strategy to maximise



Saudi Aramco is increasing its activities in shale gas and LNG

efficiency and economic viability.

"We are delighted to continue our role as the main engineering services provider on this programme," said Dave Stewart, Chief Executive of Wood's Asset Solutions business.

"Saudi Aramco is a strategically important customer in the region, and we look forward to continuing our close partnership with them and furthering our commitment to building capability in-Kingdom," added Stewart.

"This extension demonstrates Saudi Aramco's confidence in our teams in Al-Khobar, Saudi Arabia, and in our centre of excellence in Reading, UK, to deliver safe, on-time and efficient solutions to meet and exceed requirements on

this uniquely challenging project," he stated.

The Saudi Aramco award to the UK firm comes as the Saudis broaden their participation in natural gas and LNG projects as a back-up to crude oil activities.

Sempra Energy, the California-based utility and LNG export plant developer, recently signed an accord for Saudi Aramco to take a stake in the proposed Port Arthur LNG export project in Texas.

The Sempra LNG unit said the agreement with Aramco Services Company was an Interim Project Participation Agreement (IPPA) for the Port Arthur joint venture in Jefferson County.

Baker Hughes has profits fall offset by Mozambique LNG

Baker Hughes Company, the oil and gas services and equipment provider, posted lower fourth-quarter profits while pushing ahead with the provision of liquefaction plant equipment, winning a major order for Mozambique LNG in southeast Africa.

Baker Hughes reported fourth-quarter operating income of \$331 million versus \$297M in the previous quarter, though 13 percent down on the \$382M report in the same three months of 2018.

Net income was down 63 percent year-on-year at \$48M compared with \$131M in the 2018 quarter.

Quarterly revenues held up and came to \$6.34 billion, 1 percent

higher than the \$6.26Bln registered in the 2018 quarter.

Baker Hughes said LNG equipment sales were down 10 percent compared with the 2018 quarter in its Turbomachinery & Process Solutions (TPS) division.

The New York Stock Exchange-listed company said its TPS revenue of \$1.63Bln for the quarter decreased \$150 million year-over-year.

Baker Hughes noted that it was awarded a contract to supply turbomachinery equipment to French major Total for its proposed Mozambique LNG export plant.

"The company will provide two liquefaction Trains, including six gas turbines and 12 centrifugal

compressors," it said. The project is Mozambique's first onshore LNG export facility and will be located at Pemba in the northeast of the country. The first two LNG Trains are expected to produce around 12.9 million tonnes per annum of LNG.

"We closed out a strong year of performance with solid results in the fourth quarter, delivering strong cash flow, strong orders in Turbomachinery & Process Solutions (TPS) and Oilfield Equipment, and better execution in Digital Solutions," said Lorenzo Simonelli, Baker Hughes Chairman, President and Chief Executive.

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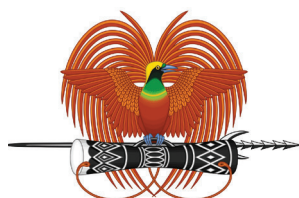


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China Merchants Energy Shipping acquires stakes in Yamal LNG carriers and dry-bulkers

LNG Journal editor

China Merchants Energy Shipping (CMES), the energy ship operator of the Hong Kong-based China Merchants Group, said it planned to acquire stakes in LNG vessels dedicated to Russian Yamal LNG deliveries and the dry-bulk vessel assets of its subsidiary Sinotrans.

CMES is a state-owned Chinese company and completed a merger in 2017 with China's leading logistics firm, Sinotras & CSC Holdings, also government owned, and has gradually been consolidating ship-building assets from Sinotrans and its logistics units.

Transfers

Under the latest deal, CMES will spend 6.57 billion Chinese yuan (\$952 million) to acquire several Sinotrans & CSC subsidiaries that control nine capesize bulkers, 11



Chinese group has increased its fleet of LNG carriers by five

panamax bulkers, 21 handysize bulkers and 25.5 percent equity interest in five Yamal LNG carriers, as well as Sinotrans Ship Management.

CMES said it would use a combination of internal capital and overseas loans to fund the acquisition.

The Chinese group said the

latest acquisition would entirely solve the competition issue between the two companies and will significantly expand the company's dry bulk fleet.

The company currently owns a bulker fleet of 21 capesizes and 12 ultramaxs.

CMES already owns six LNG carriers specializing in delivering

shipments from Australia to China, including the 147,000 cubic metres capacity vessels, the "Dapeng Moon" and the "Dapeng Sun".

CMES was jointly established by China Merchants Group, Sinopec Group, COSCO and China National Offshore Oil Corp. in December 2004.

Two years later CMES successfully launched and initial public offering to have its shares listed on the Shanghai Stock Exchange.

Two more rounds of direct issuance of shares have been held by CMES in the following few years, which provided capital for the expansion.

CMES provides a full range of energy transportation services running a diverse fleet, including crude oil tankers and dry bulk carriers.

MSC Cruises increases French shipbuilding book with order for another two LNG-powered ships

MSC Cruises, the Swiss-based cruise ship operator, said it signed an agreement with French shipyard Chantiers de l'Atlantique for its third and fourth LNG-powered vessels.

The contract with MSC Cruises is such a boost for French shipbuilding that it was signed at the Paris office of the French Prime Minister.

The MSC "World Class" ships will be delivered in 2025 and 2027.

The first of the initial two ships in the class is currently under construction at the Chantiers de l'Atlantique shipyard in Saint-Nazaire, Western France, and is due to enter service in 2022.

MSC said the Saint-Nazaire LNG-fueled newbuild contracts are valued at more than 2 billion euros (\$2.22Bln).

The company said the order guarantees over 2,400 full-time equivalent jobs for the next three-

and-a-half years. "The signatures also allows the shipyard to start working with the hundreds of suppliers and subcontractors involved in the projects, setting in motion a new cycle that will greatly benefit the French economy," said MSC.

The first newbuild will become the biggest vessel operated by a European cruise line as well as the first LNG-powered cruise ship built in France.

Compared to standard marine fuel, LNG decreases sulphur emissions and particulate matter by 99 percent, nitrogen-oxide emissions by 85 percent and carbon-dioxide emissions by 20 percent.

The signing ceremony took place at the Hotel Matignon, the French Prime Minister's official residence.

French Prime Minister Edouard Philippe was in attendance along with Gianluigi Aponte, the MSC

Group's Founder and Executive Chairman as well as Pierfrancesco Vago, MSC Cruises's Executive Chairman and Laurent Castaing, the General Manager of Chantiers de l'Atlantique.

A second accord saw MSC Cruises partnering with Chantiers de l'Atlantique in the development of yet another innovative prototype ship class concept. This explores opportunities that wind power and other advanced technologies could bring to passenger shipping.

MSC said the three agreements signed in Paris represented an investment in excess of 6.5Bln euros (\$7.3Bln) in the French economy.

"The three agreements extend our investment plan up to 2030," said MSC's Chairman Vago.

"They stem from an exceptional partnership, with Chantiers de l'Atlantique, that has already delivered 15 highly-innovative

cruise ships over the past two decades and will see many more vessels come to life at Saint-Nazaire's docks in the next 10 years," explained Vago.

"They also confirm this industry's commitment to environmental sustainability, in this case helping the French national industry further position itself as a world leader in the development of next-generation technologies and other solutions," he added.

Shipyard Manager Castaing said Chantiers de l'Atlantique was really proud and happy to have built such an outstanding relationship with MSC Cruises.

"This is based on mutual trust and driven by the spirit of innovation. We are both committed to shaping the cruise of tomorrow and to developing ship concepts which go far beyond current environmental standards," said Castaing.

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