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Small-scale LNG to rescue Italian terminals


The Offshore LNG Toscana terminal will be equipped with arms to refuel LNG barges. (OLT)

Silvia Favasuli / London

NEW MEASURES TO help develop small-scale LNG (SSLNG) infrastructure in Italy are set to breath new life into the country's underused LNG terminals.

Rome is implementing an EU directive on alternative fuels to simplify and speed up the authorisation procedures for SSLNG sites. The resulting legislative decree, which was passed on Friday, includes a National Strategic Reference Framework, which suggests converting existing LNG infrastructure to offer bunkering services or refuelling for tanker trucks.

In the same decree, Italy's Ministry for Economic Development forecasts the volume of the country's LNG market will reach 3.2 mtpa by 2030. It also products Italy will need five 30-50 thousand cubic metre (Mcm) coastal storage sites, three 25-30 Mcm coastal vessels, four cargo barges and about 800 LNG filling stations – which will also supply CNG.

Davide Tabarelli, owner of Italian energy consultancy Nomisma Energia, noted the ministry believes in the potential of SSLNG, partly because the sector is backed by a well-organised lobby of LPG sellers who are trying to enter the LNG business.

However, Tabarelli was cautious about overstating the potential for SSLNG. He said that, although the National Strategic Reference Framework will have a positive effect on the Italian energy market, there will be obstacles. These include consumer resistance to changing their habits and low tax rates on diesel – LNG's main competitor. Environmental pressure will create demand for LNG infrastructure for transports, but it will not be as high as many are hoping, Tabarelli said.

The Offshore LNG Toscana (OLT) terminal, a joint venture between Iren Group (49.07%) and Uniper (48.24%) is planning a €2 million ($2.1 million) investment to equip one side of the FSRU with arms to refuel LNG barges, which can transport fuel to other small-scale coastal sites and refuel other ships in the Mediterranean.

"Many new SSLNG sites will be built in the next few years off the coast of Italy, starting with the advanced projects of Sardinia," a spokesperson for OLT told *Interfax Natural Gas Daily*.

Eni is planning to add LNG storage and truck refuelling facilities at Livorno. The company "looks with interest to the opportunity to refuel its site through barges from the local terminal instead of tanker trucks from Spain, Belgium and France", an Eni spokesperson commented.

Having ditched plans to double the size of its Panigaglia LNG terminal, operator Snam Rete Gas completed the feasibility studies in January 2016 for developing SSLNG infrastructure. Snam is currently "studying what kind of activities can be implemented", a representative for the company told *Interfax Natural Gas Daily*.

CONTINUED ON PAGE 2

Contents

CONTINUED FROM PAGE 1

Italy's third LNG terminal, at Rovigo, operated by Adriatic LNG – which is 70.7% owned by ExxonMobil Italiana Gas – has no immediate plans to build SSLNG infrastructure, although a spokesman for Adriatic said it was following developments in the area "with interest".

Another planned terminal, at Gioia Tauro in the far south of Italy, is studying options for SSLNG facilities. "Our bunkering and refuelling services would benefit an area from Messina to Naples," Franco Canepa, a techical manager for terminal developer MedGas, told *Interfax Natural Gas Daily*. However, although this facility has received the authorisation from Italy's Ministry for Economic Development, it has not been considered strategic, which puts the project in doubt.

External factors

New emissions limits for shipping fuels are boosting the use of LNG for maritime transport. Prices are also helping LNG find its way to Europe.

"We expected higher volumes of LNG imports into Italy in 2017. Although high spot prices in Asia Pacific are currently attracting cargoes to the region, *Interfax Global Gas Analytics* anticipates that Asian spot prices will fall, allowing more LNG to land and stay in Europe," said Catriona Scott, senior energy analyst at *Interfax Global Gas Analytics*.

More competitive LNG prices and European regulations have raised utilisation rate forecasts for 2017. "Livorno's gas terminal will receive 15 cargoes in 2017, up from only seven in 2016," a spokesperson for OLT, the company managing the site, told *Interfax Natural Gas Daily*.

The site operates under government-regulated pricing and has benefited from public support through the so-called 'regasification guarantee' since opening in December 2013. Under this guarantee, the government ensures a minimum level of revenues even in case of the non-use or reduced use of the site. The terminal, which has a capacity of 3.75 billion cubic metres per year, has operated with an average utilisation rate of just 23.5% over the past four years.

Panigaglia, which also has regulated pricing, received 34 MMcm of gas as LNG in 2015 and 206 MMcm in 2016. The site is due to receive 11 cargoes in 2017.

Rovigo will continue benefiting from the stability given by long-term contracts, which will guarantee "90% of utilisation rate from here till 2019", the company told *Interfax Natural Gas Daily*. ■

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Energy front-month futures

	Closing date	Close	High	Low	% change
Brent Crude, $/bbl	13 Jan	55.45	56.21	55.28	-1.00
WTI Crude, $/bbl	13 Jan	52.37	53.17	52.27	-1.21
Henry Hub, $/MMBtu	13 Jan	3.42	3.44	3.33	0.97
NBP, p/th	13 Jan	55.08	55.85	54.21	-1.52
TTF, €/MWh	13 Jan	19.97	19.97	19.97	-1.24
Gaspool, €/MWh	13 Jan	19.60	–	–	-1.56
NCG, €/MWh	13 Jan	20.01	–	–	-1.90
CSX Coal, $/t	13 Jan	56.65	–	–	1.16
Newcastle Coal, $/t	13 Jan	83.50	–	–	-0.65
South China Coal, $/t	13 Jan	71.95	–	–	-1.51

Prices provided by GlobalView.
GlobalView provides benchmark pricing, news and analytics for the commodities and energy sector. For more information, please contact sales.london@marketview.com.

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Editor's choice

South African LNG facing more delays

Political conflict in South Africa and confusion over LNG imports are dissuading potential investors.

Gas industry must act to secure its future

The industry needs to realise there is still work to be done to convince the public of gas's low-carbon potential.

Trending

1. Malaysia faces LNG oversupply problem
2. South African LNG facing more delays
3. South Korea looks to secure US LNG before Trump takes office
4. Chinese LNG sales look local as holiday approaches
5. Gazprom agrees lower gas transit price with Georgia

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Funds invest billions in European grids

Andreas Walstad / Brussels

Funds and insurance companies continue to show an appetite for European gas and power grids, with billions of euros invested in 2016 alone.

A consortium of infrastructure funds bought 61% of National Grid Gas Distribution in December. (National Grid)

THE LAST QUARTER of 2016 saw a renewal in interest from funds and insurance companies willing to invest vast sums of money in Europe's gas and power grids.

French state-owned energy giant EDF announced in mid-December that it is selling a 49.9% stake in grid operator RTE for €4.2 billion ($4.5 billion) to two Paris-based financial institutions. The sale is seen as a move by EDF to shore up its balance sheet.

"The sale of the stake in RTE is linked to EDF's €10 billion asset disposal following a decline in wholesale power prices, and the need to finance the upgrade of EDF's nuclear fleet and the acquisition of Areva," Paul Marty, a senior credit officer with ratings agency Moody's, told *Interfax Natural Gas Daily*.

The buyers of the RTE stake are Caisse des Dépôts et Consignations – a French public sector financial institution – and CNP Assurances, a major French insurance corporation. The acquisition price was around 30% higher than RTE's Regulatory Asset Base (RAB), according to Marty. An RAB reflects the value of past investments in the network infrastructure.

Marty said Caisse des Dépôts and CNP were the preferred buyers as it is seen as more politically acceptable to sell the stake to state-owned entities rather than private companies. Stable and predictable returns from transmission tariffs were the main attraction from the investors' perspective, he added. "The attraction for the buyers is [the] high visibility of cash flows," said Marty.

Third Energy Package

The EU's Third Energy Package (TEP) – which obliges energy companies to unbundle their production and transmission businesses – may also have been a decisive factor behind EDF's decision to sell. RTE is run as a separate company from EDF, in line with EU rules.

"For EDF, ownership unbundling under the TEP would have played an indirect role in the sales process. For example, as required under the TEP, RTE was run separately from EDF as an independent system operator. That might have given a greater incentive to EDF to sell a stake in an asset over which it has limited influence," said Marty.

Ratings agency Standard & Poor's said in December that the financial outlook for EDF was stable despite a weaker-than-anticipated EBITDA guidance for 2017 following unplanned nuclear outages. The sale of a stake in RTE, coupled with a €4 billion capital injection led by the French state, had contributed strongly to the stable outlook, S&P added.

"The stable outlook on EDF takes into account the remedy plan set by EDF and the French government, including the implementation of the announced capital increase and disposal of the stake in RTE in the next few quarters. As a result, we foresee EDF's debt decreasing over the next two years," said S&P.

EDF is not the only utility to have sold grid infrastructure to financial institutions in recent months. In December, National Grid announced it had sold 61% of the UK's largest gas distribution business, National Grid Gas Distribution, to a consortium of infrastructure funds led by Macquarie Infrastructure and Real Assets. The consortium also included China Investment Cooperation, Allianz Capital Partners and Qatar Investment Authority, among others.

The deal valued the business at £13.8 billion ($16.7 billion). Moreover, in mid-October, UK utility SSE announced it will sell one-third of its stake in Scotia Gas Networks, its UK gas distribution joint venture, to the Abu Dhabi Investment Authority – a sovereign wealth fund – for £621 million.

"The stakes in Scotia Gas Networks and National Grid Gas Distribution both sold at record valuations for large network assets," Graham Taylor, a senior credit analyst with Moody's, told *Interfax Natural Gas Daily*.

Taylor said he expected lower gas demand in the future – in line with increased energy efficiency and climate goals – which would require less reinvestment in grids and provide higher cash flows for investors.

"In a low-yield environment, the returns on network assets look attractive for infrastructure funds," Taylor said. "Gas grids are low-growth assets compared to other UK networks, and as 'replacement expenditure' tails off they are likely to go into decline. The corollary of low growth should be high cash flows, with a larger proportion of the returns flowing to investors."

Also in October, Macquarie reached an agreement to acquire 30% in EP Infrastructure, a portfolio of infrastructure assets in Slovakia and the Czech Republic. The vendor, Prague-based EPH, will retain the remaining 70%. The acquisition price is not known.

Funds – including pension funds – and insurance companies have shown an increasing appetite for gas and power infrastructure assets in recent years. Energy networks offer predictable returns and allow pension funds to invest vast sums of money, which is what they look for. Cash-strapped utilities seem eager to sell off capital-intensive transmission assets to write down debt and raise new capital for investment. ■

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India's power plans underestimate gas demand

Garima Chitkara / New Delhi

India's National Electricity Plan may be overestimating the role of hydro in future power generation and underestimating gas demand.

Essar's 500 MW gas-fired power plant at Hazira, Gujarat. India's power demand is expected to increase. (Essar)

THE LATEST DRAFT of India's National Electricity Plan (NEP) overestimates the country's future hydro generation capacity and underestimates demand from its gas-to-power sector, analysts have told *Interfax Natural Gas Daily*.

The NEP, which was released on 31 December, is bullish on the generation capacity that will added by renewables, and expects solar and wind to generate 20% of India's electricity by 2022 and 24% by 2027.

The plan predicts 53 million cubic metres per day (MMcm/d) of gas will be needed to balance the grid as a result of the greater integration of renewable power sources.

According to Rohit Ahuja, head of oil and gas research at Religare Capital Markets in Mumbai, if the NEP's estimates are met, it would help the stranded gas-fired power plants, which are struggling to operate at their targeted load factors of 30%.

"These power plants are currently operating at [load factors of] 22-23%, which is much below the government's target of 30%. An additional 15-20 MMcm/d of gas should help achieve the 30% target, so the projection seems to be close to [...] reality. However, these plants should operate at between 60% and 70% to create income and pay down debt," Ahuja said.

Plans for hydro

However, the plan also expects hydropower to play the role of balancer. To achieve this, India is expected to increase its current 45 GW of hydro capacity to 60 GW by 2020, according to the NEP.

Gurpreet Chugh, director at ICF International in New Delhi, said the hydro forecast is too optimistic and the NEP's target is likely to be missed by 10-15 GW as no significant hydro capacity has come online in the past five years. The NEP notes hydro capacity addition has failed to meet targets in the past and recommends speedier approvals for hydro plants.

"The NEP assumes that all of the projects that are [currently] stuck [because of a] lack of clearances will come online. We don't think that is likely, since development of hydropower plants takes a very long time because of the requirements for social and environmental impact analysis, which hold up clearance. Hydropower is especially unattractive in an environment where renewables have become quite cheap and the push for hydro may not really be there," said Chugh.

"So although the assumption for renewable capacity seems reasonable, the estimate for hydro expansion as a balancer seems aggressive. Which means the demand for gas [...] might be understated," he said.

This does not bode will for India's 24 GW of stranded gas-fired power capacity. The government's LNG price pooling scheme for the power sector, which allowed generators to average out the price of LNG and domestic gas to create a uniform input rate, was an important policy for increasing load factors among stranded gas plants. But this provision is set to end in March this year; according to Ahuja, it will need to be extended to continue to provide support to the power sector.

Ahuja also said incremental domestic gas supplies need to be earmarked for power plants, even though the transport sector has the right of first refusal. "CNG buyers have much greater capacity to absorb higher prices since it is currently 70-80% cheaper than petrol. There is a lot of potential for price adjustment in that area," he said.

The tax structure on gas also needs to be streamlined, Ahuja said. The NEP lists several proposals on this front – including, significantly, waiving VAT on imported LNG.

According to Chugh, estimates from India's Central Electricity Authority (CEA) for electricity demand seem optimistic given current economic conditions.

In the NEP, the CEA predicts peak electricity demand will be 235 GW by 2022 (growing at around 7.2% each year), while 4 GW of gas-fired capacity will be added in the next five years. The plan expects 58% of the capacity added to come from the private sector. The plan also targets renewable capacity of 175 GW by 2022.

Chugh said the NEP has pegged economic growth at 8.5% each year over the next six years, much higher than independent estimates by various ratings agencies and the World Bank, which range between 7% and 7.6%.

"We don't consider the GDP growth estimates used by the CEA are reasonable. If the GDP growth is considered to be one percentage point lower, that would cut electricity demand growth estimates by 0.75-0.90 percentage points," he said.

However, Chugh notes that the correlation between GDP growth and electricity demand growth in the NEP is lower than what has been assumed in the past.

The NEP said 101.6 GW of additional capacity was added in the last fiscal year, with 6 GW coming from gas.

The draft is open to industry input over the next few months. ■

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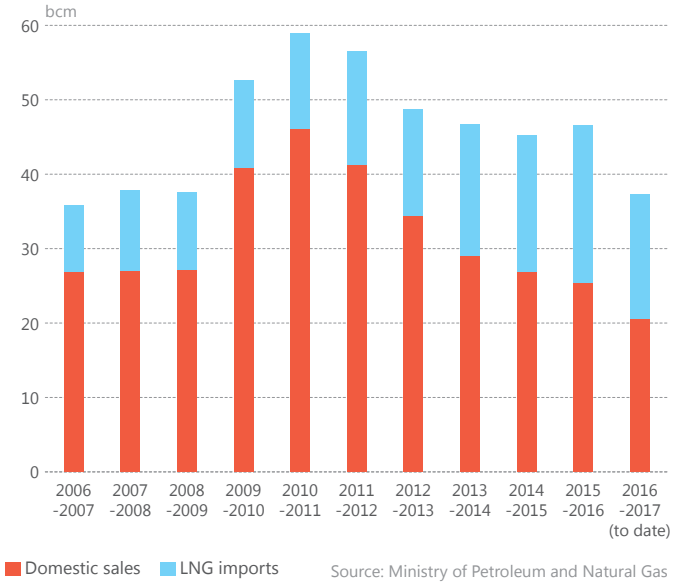
India's gas supply falling short of demand

Andrew Walker / London

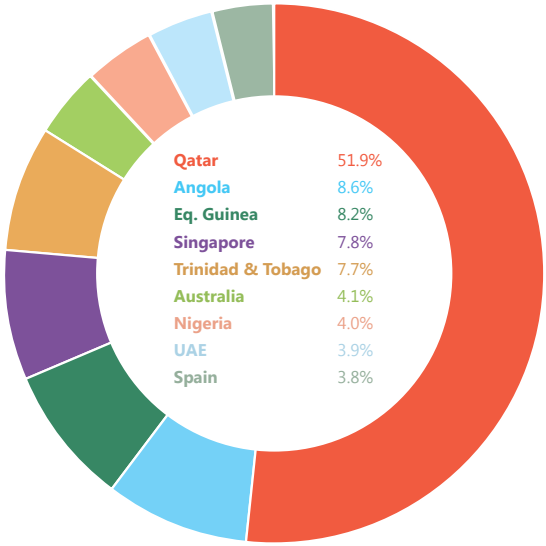
INDIA'S GAS SUPPLY – including imported LNG and domestic output – met just 30% of the country's estimated demand in November, according to the government's Petroleum Planning and Analysis Cell.

INDIAN GAS CONSUMPTION



Source: Ministry of Petroleum and Natural Gas

INDIAN LNG SOURCES, NOVEMBER 2016

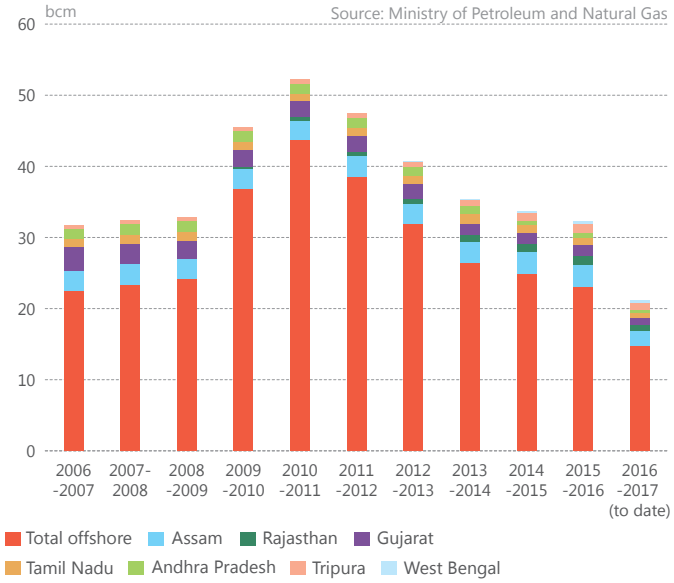


Source: Ministry of Petroleum and Natural Gas

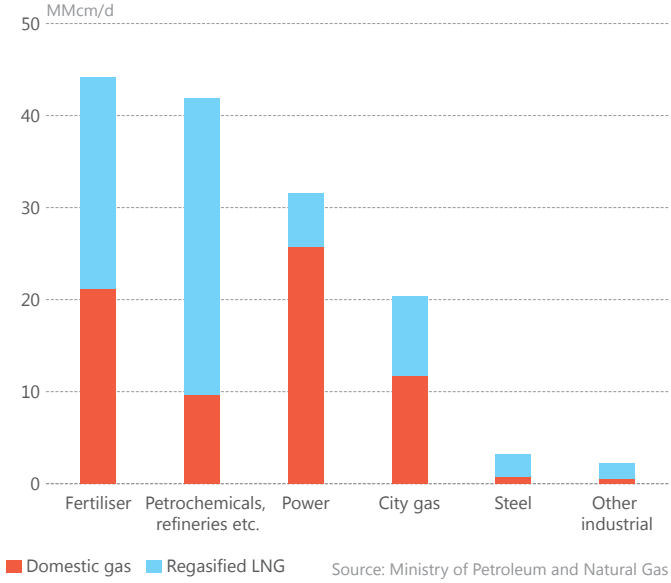
India has been importing more LNG to counter declining domestic production, especially since global prices started to fall in 2015. India has paid an average of just over $6/MMBtu for LNG so far during its current financial year, less than half the $13.3/MMBtu it paid in 2014.

The country purchases significant volumes of LNG as cheaply as possible via short-term trades and on the spot market and therefore receives LNG from a range of locations. However, most of India's LNG comes from Qatar on long-term contracts.

INDIAN GAS PRODUCTION BY REGION



INDIAN GAS CONSUMPTION BY SECTOR, NOVEMBER 2016



Source: Ministry of Petroleum and Natural Gas

India's domestic gas production is declining, and the performance of the KG-D6 field has been disappointing. The country's offshore output for 2015-2016 was below that of 2008-2009, when the field had yet to be brought online. Onshore output has been largely flat, at 8.5-9.3 bcm.

India is keen to expand its domestic gas production to provide cheap feedstock for its industrial sector, but lower oil prices and challenging fields are making this difficult. In the meantime, the country is taking advantage of cheap LNG to provide additional supplies.

China's Henry Hub hopeful fizzles in 2016

Tang Tian / Shanghai

Trading on the Shanghai Petroleum and Gas Exchange, China's hoped-for equivalent of the Henry Hub, remained limited last year.

A meeting of SHPGX personnel. The exchange has not lived up to expectations. (Shanghai Oil and Gas Trading Centre)

THE SHANGHAI PETROLEUM and Gas Exchange (SHPGX) – which Beijing has billed as China's Henry Hub – struggled for relevance in 2016, after limited trading volumes only captured a single-digit share of domestic consumption.

Just 15 billion cubic metres of gas exchanged hands on the electronic spot trading platform last year, equivalent to 8% of China's gas consumption in 2016, according to the SHPGX. The limited liquidity is in line with what Xu Shaoshi, head of the National Development and Reform Commission (NDRC), predicted at the exchange's official launch ceremony in late November.

The platform has officially opened for business after a 16-month test run that started in July 2015. But it has struggled for influence, and has been let down by the slow pace of oil and gas reforms that would have made the platform a central plank of a fully open and transparent market for non-residential gas.

A disappointing 2016 will also not do much to beef up Shanghai's credentials as a pricing point for the northeast Asian gas market.

The exchange will only be a bona fide price discovery mechanism for the gas market if its trading volume equals 20% of China's consumption, Guo Jiaofeng, a senior researcher at the Development Research Centre of the State Council, told *Interfax Natural Gas Daily*.

Traded volumes could reach 80% of consumption within 10-15 years if gas market and pricing system reforms are vigorously implemented, Xu Bo, a senior economist at China National Petroleum Corp.'s Economics and Technology Research Institute, told *Interfax Natural Gas Daily*. Insiders insist the Shanghai exchange can still become China's version of the Henry Hub, helping with price discovery ahead of full price deregulation.

"Our exchange is intended to build a platform where buyers and sellers far and wide can come to conduct public and transparent transactions," said Li Xing, general manager for LNG at the SHPGX. "We will also build an energy information platform and a financial platform in the future. Then we will have transparent prices that can actually reflect the supply-demand situation in the market," said Li last week.

The exchange divides China into seven regional markets. For piped gas transactions, sellers price their gas against benchmark citygate prices set by the NDRC. Buyers can then negotiate further online.

Pipeline trades in the eastern market, which covers seven provinces including Shandong, Zhejiang and Shanghai, had the highest average settled price, of RMB 2.29/cm ($9.34/MMBtu), followed by RMB 2.18/cm in the central region and RMB 2.14/cm in the south, according to Li. The northwest – which covers Xinjiang, Qinghai and Gansu – had the lowest price, of RMB 1.54/cm.

Regional trading

Li said trading on the platform was concentrated in the eastern, central and southern markets, where gas demand is strongest. He said prices already "basically reflect supply and demand", and that they would become more representative as liquidity increases.

The SHPGX will help the gas market overcome the main barrier to reforms – the three state-run oil majors, which are reluctant to relinquish their tight grip over the industry, said Li. "They have monopolised production, imports and supply infrastructure," he added.

Gas users have a limited amount of bargaining power with the NOCs because of the majors' stranglehold over supply. Meanwhile, the NOCs have continued to block access to infrastructure such as pipelines and LNG terminals despite Beijing's repeated calls for increased third-party access. The platform is helping to expose the issues created by the monopoly, according to Li. He added that the official *Xinhua* news agency, the largest stakeholder in the exchange with 33% equity, will privately report these issues to Beijing with the aim of encouraging further reform.

The exchange has released a number of price indexes to try to tackle the lack of transparency in gas pricing. It started to publish a daily LNG transaction price index at the end of November, based on settlement prices from 50 plants and 14 terminals. The index closed at RMB 3,086/t ($8.62/MMBtu) on its first day and hit RMB 3,275/t days later. It settled at RMB 3,065/t on Monday.

The index's movement has tracked market dynamics. Heating demand spiked in northeast China at the end of November and during the first week of December following heavy snow. In response, PetroChina curbed feedstock supplies to LNG plants in Shaanxi province and Inner Mongolia in the first half of December, which drove up LNG prices. LNG prices moderated as feedstock supply levels returned to normal in mid-December.

Awareness of the price index remains low for now. Five separate sources involved in LNG trading and sales said they were unaware of the index. "That is understandable. After all, it's just been around for seven weeks. It'll draw more attention over time as liquidity on the exchange builds," a source at the SHPGX told *Interfax Natural Gas Daily*. ■

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Uruguay gambling on Argentina's demand

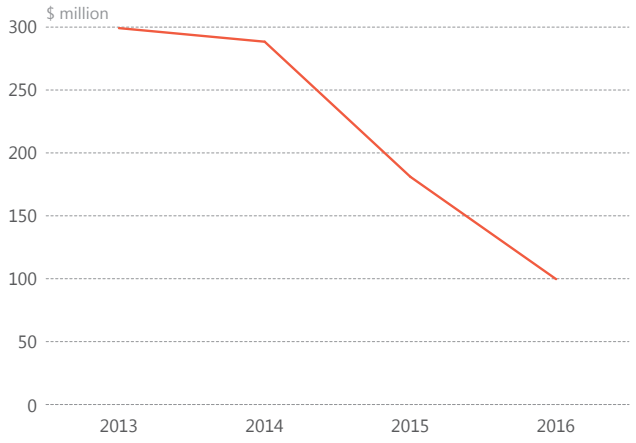
Chris Noon / Barcelona

DEMAND SCENARIOS FROM URUGUAY'S PROPOSED LNG TERMINAL

Uruguayan demand	2 MMcm/d
Potential Uruguyan demand by 2027	6 MMcm/d
Cruz del Sur pipeline capacity to Argentina	6 MMcm/d
Point at which terminal is profitable	6 MMcm/d
Uruguayan demand + maximum possible exports to Argentina	8 MMcm/d
Minimum Argentine demand required by Uruguay	8 MMcm/d
Maximum Argentine demand required by Uruguay	10 MMcm/d
Total send-out capacity	12 MMcm/d

Sources: Uruguayan Energy Ministry, Cruz del Sur, Boston Consulting Group, Interfax

AVERAGE MONTHLY ARGENTINE SPENDING ON LNG



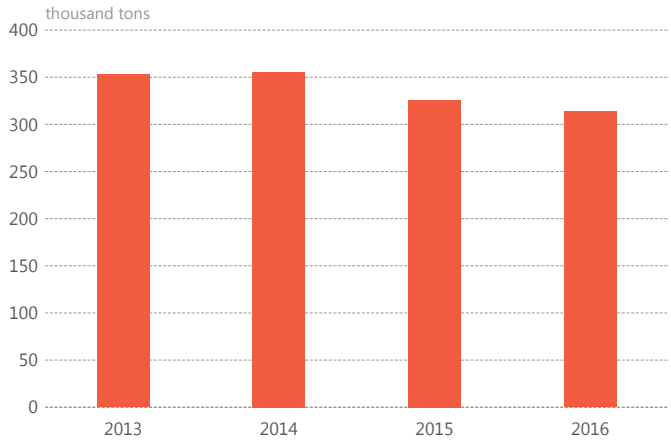
Source: INDEC

The Uruguayan government's final decision over a proposed LNG terminal in the country's capital, Montevideo, hinges on long-term Argentine demand for regasified fuel from the facility. Uruguay's demand is likely to be a maximum of 2 million cubic metres per day (MMcm/d), which would require Montevideo to sell 8-10 MMcm/d to make the 12 MMcm/d terminal commercially feasible, according to Uruguayan President Tabaré Vázquez. However, there are a number of variables, such as future Uruguayan and Argentine demand.

The prognosis for the Montevideo terminal does not look good. Argentina's monthly spending on LNG imports has fallen from around $300 million in 2013 to $100 million in 2016 because of reduced demand and the continued bear market.

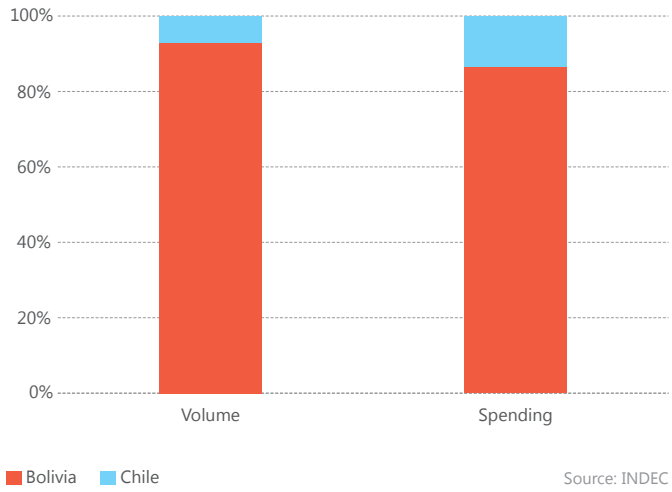
Latin America's LNG demand is also expected to remain under pressure as a result of the weakening economic situation in the region and rising gas production in Brazil and Argentina, according to *Interfax Global Gas Analytics*. The outlook for spot prices for the fuel is also bearish.

AVERAGE MONTHLY ARGENTINE LNG IMPORTS



Source: INDEC

BREAKDOWN OF ARGENTINE PIPELINE IMPORTS IN 2016



Source: INDEC

Argentina has been reluctant to commit to purchasing gas from the Montevideo terminal, which is 230 km east of Buenos Aires on the north shore of the River Plate. Buenos Aires is seeking to reduce LNG imports to zero as soon as 2021 as it seeks to ramp up unconventional production from its Vaca Muerta shale play. Argentina's average monthly LNG imports have fallen by nearly 12% since 2014.

Argentina is also topping up its gas imports during winter months with regasified fuel arriving as six LNG cargoes last year via Chile's GNL Quintero and Mejillones terminals before being exported to Argentina through the cross-border GasAndes and Norandino pipelines in 2016. Buenos Aires is likely to continue importing gas through Chile in 2017, which is not a good sign for Uruguay's proposed terminal.

Crescent plans move into Iraq and North Africa

Crescent Petroleum is planning to invest in Iraq and North Africa, Majid Jafar, the company's chief executive, told *The National* newspaper. "We're looking at some interesting opportunities that are opening in North Africa, especially with the departure of many Western international oil companies that don't have the same risk appetite for the region as they previously did," Jafar said. Crescent is also looking at upstream opportunities in southern Iraq.

Iran adds more IOCs to bidding prequalification list

Iran is adding several more names to its list of IOCs that are prequalified to participate in its upstream oil and gas tenders. Gholamreza Manouchehri, deputy head of National Iranian Oil Co., told the *Mehr News Agency* the company planned to issue a second list of international companies. Iran prequalified 29 companies earlier this month, but the notable absence of several large IOCs on the list prompted some criticism.

Exxon developing Vietnam's Blue Whale project

ExxonMobil has signed two agreements with PetroVietnam and its subsidiaries to develop the Blue Whale gas project offshore Vietnam, according to *Reuters*. The project could fuel at least four power plants once it comes online, which is slated for 2023. The field lies 80 km off the central Vietnamese coast and is an important gas discovery for Vietnam. Investment in the field and the power projects could total $10 billion.

Japan and Indonesia to cooperate on maritime security

Japan's Prime Minister Shinzo Abe and Indonesia's President Joko Widodo have agreed to cooperate on maritime security issues, according to *The Japan Times*. China disputes Indonesia's claim to ownership of the Natuna Islands, and Tokyo will work with Jakarta to strengthen its patrols of areas in the vicinity of the archipelago. Indonesia has also proposed cooperating with Japan on oil and gas exploration near the islands. The agreement was reached during Abe's four-nation tour of the region; he has already visited Australia and the Philippines and is scheduled to visit Vietnam next.

The naming ceremony of BW Group's new FSRU at Samsung Heavy Industries' shipyard, South Korea. (BW Group)

RGPPL to separate gas and power businesses

India's Ratnagiri Gas and Power Pvt Ltd. (RGPPL) is planning to spin off its gas and power businesses into separate entities, according to *Live Mint*. RGPPL is owned by NTPC and Gail, which each hold a 25.51% stake; financial institutions hold 35.47% and the Maharashtra State Electricity Board holds the remaining 13.51%. RGPPL has struggled to raise money to build a breakwater that will allow it to receive LNG vessels during the monsoon season. Splitting the company into two entities will help it find financiers for the breakwater and attract fresh equity, according to one source.

HPC in talks to secure cargoes for Chhara terminal

India's Hindustan Petroleum Corp. (HPC) is in talks with six companies to import LNG at the terminal it is building in Chhara Port in Gujarat, according to *Live Mint*. The company is in a joint venture with Shapoorji Pallonji Port to build a 5 mtpa terminal at Chhara, which is expected to be commissioned by 2019. HPC is looking to enter the spot market this year to build experience in the sector before its terminal is brought online.

Bangladeshi team heads to Qatar to hammer out LNG deal

Bangladesh will send a negotiating team to Qatar this month to finalise a deal to import LNG, six years after signing an initial memorandum of understanding in 2011, according to the *Gulf Times*. The original MOU was for 4 mtpa and has been extended twice because Bangladesh has struggled to secure a deal to build an LNG terminal. Petrobangla signed a deal in July last year with Excelerate Energy Bangladesh to build the country's first LNG terminal. It also signed an MOU with India's Petronet in December to build another LNG terminal on Kutubdia Island. Additionally, Petrobangla is looking to make a deal with Summit LNG Terminal Co. to install another FSRU at Moheshkhali Island, as well as striking a deal with India's Reliance to build a terminal in the same area. Bangladesh has been short of gas since 2009 and has had to ration supplies to major industries.

BW Group names newest FSRU

BW Group named its second FSRU vessel the BW Integrity at Samsung Heavy Industries' shipyard in South Korea in a ceremony last Thursday, according to a press release from the company issued on Monday. The FSRU has been chartered to Pakistan GasPort under a 15-year agreement to provide regasification services at the country's Port Qasim. The vessel will more than double Pakistan's current LNG regasification capacity to more than 34 million cubic metres per day.

Anadarko sells Eagle Ford shale assets to Sanchez and Blackstone

Houston-based Anadarko Petroleum has agreed to sell its South Texas Eagle Ford shale assets to Sanchez Energy Corp and Blackstone Group for $2.3 billion. The sale covers an area of around 63,000 hectares. Sales volumes from the acreage amounted

CONTINUED ON PAGE 9

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to 45,000 barrels of liquids per day and 3.7 million cubic metres of gas per day at the end of Q4 2016.

New York aiming to develop 2.4 GW of offshore wind power

The state of New York plans to develop up to 2.4 GW of offshore wind capacity by 2030, which could provide power for up to 1.25 million homes. State Governor Andrew Cuomo announced last week that the project will be located 48 km southeast of Montauk, out of view from the coast, to replace Entergy Corp's 2 GW Indian Point nuclear power plant. Indian Point is scheduled to close by 2021, and its output is to be replaced with renewables. The wind project is part of Cuomo's 'Clean Energy Standard' target to produce 50% of the state's electricity with renewables by 2030.

Henry Hub gas price hit lowest level since 1999 last year

Henry Hub gas prices averaged $2.49/MMBtu in 2016, their lowest annual average since 1999, the United States Energy Information Agency (EIA) has reported. Warmer-than-usual temperatures and changing gas demands were the two major contributors to lower prices in 2016, the EIA reported last week in a review of 2016. "The monthly average price fell below $2.00/MMBtu from February through May, but later increased, ending the year at an average of $3.58/MMBtu in December," the EIA said. In November, the US became a net exporter of gas on a monthly basis for the first time since 1957. Gas surpassed coal as the country's primary fuel for power generation in 2016, supplying around 34% of the nation's electricity compared with 30% for coal. US pipeline exports to Mexico also increased throughout the year, comprising 87% of all US gas exports. The Sabine Pass LNG project on the Gulf Coast started commercial operations in May to export the fuel. Meanwhile, the Panama Canal expansion, which was completed in July, improved export flows by reducing transport costs and journey times to markets in Asia and the west coast of South America.

New US upstream projects will double this year – Woodmac

The amount of new upstream oil and gas projects in the United States are forecast to double in 2017, Wood Mackenzie has reported. Woodmac expects the investment cycle will show signs of growth in 2017 for the first time since 2014 and the amount of FIDs will double compared with 2016. "US tight oil and the Permian Basin in particular will lead the way, distinguished by low break-evens, scale and flexibility. US Lower 48 spend is set to grow by 23%, to $61 billion, with upside if oil prices rise strongly," the outlook said. E&P spend is forecast to increase by 3% to $450 billion, which is still 40% below 2014 levels. ■

The Week Ahead

Monday 16 January

- OMV Petrom Q4 trading update
- World Future Energy Summit, Abu Dhabi, United Arab Emirates (until Thursday)

Wednesday 18 January

- Hydrocarbons in the Mediterranean, Larnaca, Cyprus (until Thursday)

Sunday 22 January

- EU Projects of Common Interest application deadline

Monday 23 January

- ENTSOG presentation on TYNDP, Brussels, Belgium
- ACER-CEER Conference: Towards a future-proofed EU Energy Market Design, Brussels, Belgium

Interfax
Natural Gas Daily

Registered Office
Interfax Europe Ltd,
19-21 Great Tower Street, London EC3R 5AQ
Tel: +44 (0)20 3004 6200
Email: customer.service@interfax.co.uk
Web: interfaxenergy.com

Chief editor Therese Robinson
therese.robinson@interfax.co.uk

News editor Tom Hoskyns
tom.hoskyns@interfax.co.uk

Western Europe editor Annemarie Botzki
anne.botzki@interfax.co.uk

Africa editor Leigh Elston
leigh.elston@interfax.co.uk

Latin America editor Christopher Noon
chris.noon@interfax.co.uk

Middle East editor Verity Ratcliffe
verity.ratcliffe@interfax.co.uk

China editor Colin Shek
colin.shek@interfax.cn

Asia Pacific editor Andrew Walker
andrew.walker@interfax.co.uk

EU policy & regulation editor Andreas Walstad
andreas.walstad@interfax.co.uk

Energy markets reporter Silvia Favasuli
silvia.favasuli@interfax.co.uk

International correspondents
Baku Anar Azizov, Nigar Abbasova ▪ **Beijing** Li Xin ▪ **Beirut** Rachel Williamson ▪ **Delhi** Garima Chitkara ▪ **Dublin** Astrid Madsen ▪ **Kiev** Alexey Egorov, Roman Ivanchenko ▪ **Lisbon** Miriam Malek ▪ **Moscow** Alexey Novikov, Svetlana Savateeva, Yulia Yulina ▪ **Perth** Sally Bogle ▪ **Shanghai** Tang Tian ▪ **Singapore** Damon Evans

Production
Chief sub-editor Rhys Timson
Sub-editors Doug Kitson, Rob Loveday
Design & layout Joseph Williams

Sales
Senior sales manager Matt Shelton
matt.shelton@interfax.co.uk
+44 (0)20 3004 6203

Sales manager Frazer Donald
frazer.donald@interfax.co.uk
+44 (0)20 3004 6207

Sales manager Alex Akselberg
alexander.akselberg@interfax.co.uk
+44 (0)20 3004 6229

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