LNG North America

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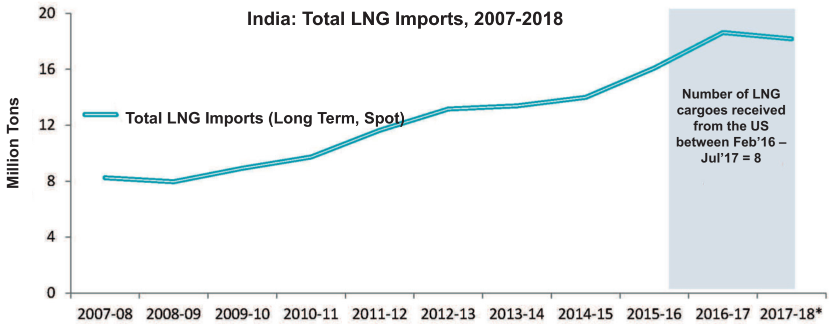
Indian buyers in two minds about US LNG

Although global markets are awash with new LNG supply from Australia and the United States, key buyers in India have been courting the incumbent seller Qatar to invest in stranded gas-fired power station as a precondition for new long-term LNG purchase agreements. Reliance Industries, India's most price-sensitive buyer, is scanning spot markets for US LNG cargoes.



* 2018 data is forecasted based on 4 month data (April, May, June and July 2017)
Note: Reliance LNG import data is included from 2012-13 onwards.
Reliance usually import around 1-1.5mt of LNG per year.
Source: Petroleum Planning & Analysis Cell
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Determined to keep prices to a minimum, Reliance has not entered any term contract and buys its entire gas requirement on spot basis – usually one cargo per month – for delivery at the Hazira LNG terminal. From there the re-gasified fuel is used for power generation or as feedstock in its petrochemical complexes.

"With global LNG prices on the spot market expected to stay in bearish mood for the years to come, Reliance prefers spot purchase instead of engaging itself in a long term contracts," comments Priyank Srivastava, oil & gas consultant at Protiviti's Abu Dhabi offices. He expects global spot LNG prices to stay bearish for years to come, hence Reliance is well advised to prefer spot purchase instead of engaging in a long term contracts.

Still, Reliance has not sourced any US LNG spot cargo just yet, but the Indian petroleum giant has its eyes peeled on attractive cargoes from the American Gulf Coast. In the meantime, it has struck a 20-year contract to purchase 1.6 million tons of ethane from the US that will replace natural gas and naphtha as feedstock at its petrochemical plants. Earlier this month Reliance has begun receiving cargo of ethane from the US to the Gujarat Chemical Port Terminal Company terminal at Dahej, Gujarat.

Ways of sourcing cheap stock

Assertive Indian buyers are seeking to secure spot cargoes at US$5-6/mmBtu while the government in Delhi hopes to lock a price even lower than that in any new term deal with suppliers.

Gauging the market sentiment in India, Mr. Srivastava has seen a mixed reaction: Some buyers are discouraged from entering a transaction at the current spot price level as they expect prices to plunge even further. On that note he indicated that GSPC and IOC

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Stubborn OPEC members slow oil market rebalancing

The re-balancing of global oil markets is viewed by the IEA as "a stubborn process" given that some producers, party to the OPEC's output cut agreement, are "showing signs of weakening their resolve." The compliance rate fell again in July to a new low of 75% from June's 77%. Still, IEA analysts believe "the market is re-balancing" as the price of Brent crude recently stabilised above $50/bbl.

Low oil, and subsequently low oil-indexed gas prices, have been posing challenges for large parts of the global gas industry. Companies have changed the way they pick projects and execute on them. There is a tendency to increasingly target smaller projects that can deliver paybacks over a shorter period of time.

Hydrocarbon producers should find encouragement from demand, which is growing year-on-year more strongly than first thought.

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AGENDA

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were heard not to have awarded its cargoes inquiry for September and October deliveries.

On the other side of the spectrum, Torrent Power India has awarded 26 out of 36 cargoes, asking for three cargoes to be delivered each quarter from January 2018 until December 2020.

Shell was heard to have won most of the slots. Vitol, BP, Glencore and Gazprom are also understood to have won slots for LNG delivery, based on oil-slope level at wide range of 9.85% to 13%. According Mr. Srivastava's calculations this translates to US$4.978/MMBtu and US$6.490/MMBtu, respectively.

GAIL said it expects to import 55 LNG cargoes during 2016-17, having signed a time-swap deal with Swiss trader Gunvor in March this year to sell some of its US LNG.

"With this move, GAIL tries to ease the burden of its costly contracted LNG supplies that have become somewhat unattractive after a sharp fall in Asian spot prices rendered US gas exports more expensive by comparison," he explained. "Against a supply of 5.8mt of LNG from the US, GAIL has been able to create a market for just under 4 million in India, hence wants to sell of the remaining overseas."

Under the deal, GAIL will receive 15 cargoes from Gunvor this year on oil-linked prices on a delivered basis in India. In return, the Indian company will sell 10 cargoes in 2018 from Sabine Pass at a premium to its pricing formula on a FOB basis. GAIL has also sold about 0.5mt of LNG from its US portfolio to Shell; furthermore it is in discussion with more players to sell LNG from its American deals.

Global LNG glut gains ground

Overabundance, not to say a glut in supply, is what characterizes today's global LNG market. And the overhang keeps building up as more and more liquefaction and export trains are being commissioned and start up in Australia and in the United States.

Buyers, in India and beyond, have been gaining the upper hand and assertively address their demands in terms of contract duration and pricing. Concerns about security of supply are fading away, as buyers are gaining greater confidence in the market and see less of a need for long-term contracts. Oil-indexation is slowly becoming a thing of the past.

Cheniere, the US LNG frontrunner, reportedly sent out 48 cargoes in Q2-2017 – more than four-fold increase over the 11 cargoes shipped in the same period of last year. Total 8 LNG shipments were received by India from the Sabine Pass by the end of July.

But things don't stop here: The second wave of US LNG-export projects is about to come online, as Dominion Energy is set to launch commissioning cargoes from Cove Point LNG by year-end. Wood Mackenzie analysis shows that new or expanded projects will deliver an additional 25mtpa to the global market this year. In 2018, the United States is going to add a massive 37mtpa of additional volume to the market.

In Australia, commissioning cargoes from Chevron's new Wheatstone project in early September will be adding more supply to the market. Furthermore, the Canadian Federal Government gave final approval for the construction first LNG project of 2.1 mtpa capacity from the west coast of British Columbia. Supply emerging from new projects may restrain any substantial price improvements.

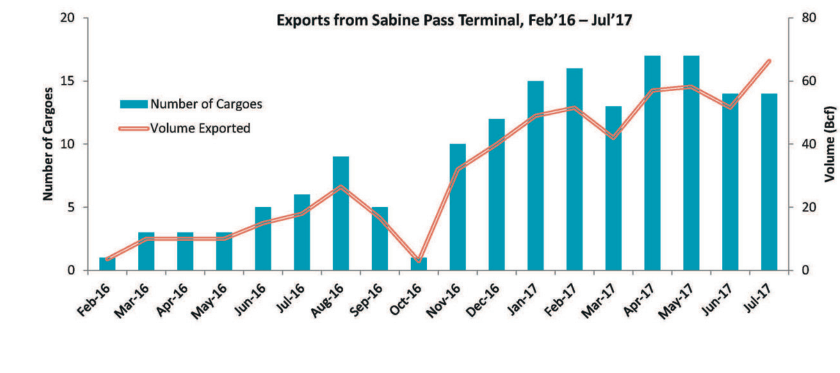
The incumbent fights back

Qatar, the incumbent supplier in the Middle East, unexpectedly announced to lift its 12-year moratorium on further development of North gas field and will seek to bring an extra 2bcf/d into production by the end of 2023.

"This is a signal to its rivals including Australia and the US that Qatar intends to increase its market share, which has been falling amid a worldwide supply glut," Mr. Srivastava commented, suggesting recent events in Qatar triggered by sanctions imposed by its Gulf neighbors may impede the security of supply, albeit to a smaller extent.

In the case of India, close proximity and good working relations give Qatar an edge over other exporters around the globe, he cautioned; but thinks nonetheless that "traders would supply the additional spot requirement from the US into India, if and when the need arises." ■

EXPORTS FROM SABINE PASS TERMINAL



Source: EIA, Platts, Argus, Reuters and Protiviti Analysis

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Publisher
Stuart Fryer

Editor
Anja Karl
Tel: +44 7733 684682
anja@lngjournal.com

Layout
Vivian Chee
Tel: +44 (0) 20 8995 5540
chee@btconnect.com

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The IEA's growth estimate for 2017 has been increased to 1.5 mb/d, including very strong data for 2Q17 when demand increased by 1.8 mb/d. The agency also expects relatively strong demand growth for 2018 of 1.4 mb/d.

"From the producers' viewpoint, strong growth reduces the stocks overhang when expressed in terms of days of forward demand cover: perhaps this is a more relevant measure than simple volume," analysts said.

On the supply side, some key OPEC member states are clearly determined that the output agreements will succeed: Saudi Arabia has indicated that export levels in August will fall to 6.6 mb/d, and, according to recent reports, it will cut customer allocations in September.

Other countries currently have very low compliance rates, although this can change. In passing, we must note, the IEA says, "that the current situation in Venezuela is being monitored closely with respect to any market impact should oil production and exports fall significantly."

Still, if re-balancing is to be maintained, the producers that are committed to seeing the task through to March 2018 need to convince the market that they are in it together. According to the IEA, it is not entirely clear that this is the case today. ■

Glut in LNG to push European gas prices through coal floor

Excess growth in global LNG supply, notably through the ramp-up of US LNG through 2018 and into 2019, will make European gas prices “move through the coal floor [price]”. Fuel-switching in the Western European power market, according to Societe Generale, will ultimately be determined by short-term gas prices hinging at the variable cost of shipping a US LNG cargo to Europe.

Through the first half of 2018, SocGen expects the current price framework to “ hold relatively stable” for Europe whereby the region’s prices have been ranging most consistently between a floor set by coal and a ceiling set by spot LNG prices.

Volatility of coal prices between now and mid-2018, however, is shaking up the fragile equilibrium and the established fuel-switching mechanism in the European gas and power market.

China’s behaviour proves that the state-run economy has the “ability and willingness to manage global coal prices.” To prove that point, SocGen analysts refer in early 2016 when steam coal prices in northwest Europe dropped to average $45 per million tons. China’s National Development and Reform Commission (NDRC) subsequently instituted a policy to limit the number of allowed mining days, cutting output to raise coal prices which subsequently surged to around $81/mt in Q4-2016. Later on that year, in November, NDRC reversed its policy allowing miners to raise production which eased price pressure.

NorthWest European coal prices have been “following” China prices with a slight lag, SocGen analysis shows and based on China’s past behavior around coal price level s, the bank anticipates a Chinese “reaction price” around $75/mt in northwest Europe.

SocGen’s coal switching indicator, when applied to a $75/tonne coal price, equates to a gas price at the Dutch TTF at around €12.90/MWh.

Supply elasticity of spot LNG

Spot LNG prices, on the other hand, have been in freefall globally dragged down by a ramp-up in unconventional gas production for liquefaction and export both in Australia and in the U.S.

Sempra’s recent Sempra of Cameron LNG start-up being delayed to 2019 will slow the timing, and magnitude of the wave of new LNG supply at global markets. Still, SocGen analysts see “enough capacity coming online in 2018 to prompt the start of loosening within the marginal LNG basin, the Atlantic basin, by the end of 2018.” The oversupply should exacerbate in 2019.

Oversupply heralds a plunge in LNG prices which incentivises European power generators switch to turn their back on coal and switch to cleaner burning natural gas.

Limiting factors to near-term coal displacement in Europe are, however, existent coal stockpiles and long-term import contracts. Furthermore, available gas generation capacity is not sufficient in all member states to facilitate a swift move from coal to gas power generation.

Structural shifts in the generation stack “could open up additional gas demand opportunity” further out, but in the near term those structural changes are seen as “extremely limited”. Once the coal displacement threshold is consistently tested, and the market picks up the incremental demand available in the power generation sector, SocGen expects the market to begin converging to its next (lower) price level: U.S. variable LNG cost.

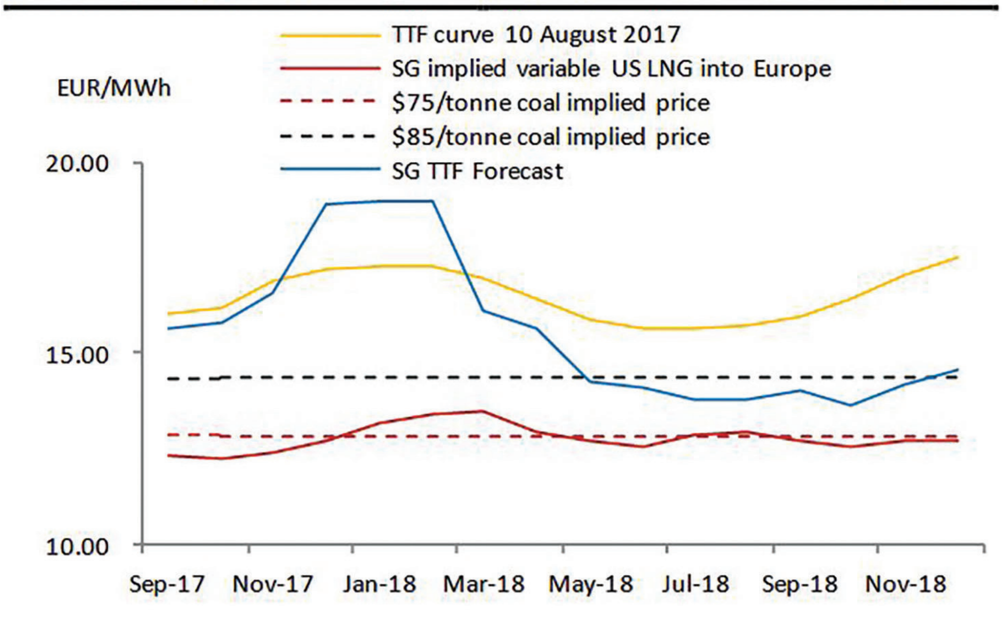
Eroding price premium

The more LNG will flood global markets, and head to NorthWest Europe as a market of last resort, the more traders will pounce on arbitrage opportunities between the gas prices at the U.S. Henry Hub and the Dutch TTF or the British NBP. Ultimately, this trading behaviour will eradicate the current premium of European gas prices to the marginal global LNG supply source, originating from the US Gulf Coast.

By mid-2018, SocGen expects European gas prices to show signs of convergence to Henry Hub. “If coal prices hold at or above $75/tonne, this should allow for TTF to move consistently around the €13 to 14/MWh threshold in 2H 2018,” analyst wrote in an investors’ note but cautioned that in case of a particularly cold winter 17/18, there could be a delay in price softening on both sides of the Atlantic. In that scenario, the second half of 2018 could see an elevated TTF level at €14 to 16/MWh.

Beyond 2018, the continued growth in global LNG supplies and the anticipated drop in US gas prices will put European gas prices into an “enhanced and more consistent relationship with US HH prices”. According to SocGen analysis, $3/MMBtu Henry Hub price, and a $75/tonne coal price, translates to an equilibrium price of €12.50 -13.50/MWh in Europe. ■

SG anticipates forced convergence of TTF first to the coal floor, and then towards the variable cost of US LNG to Europe



Source: SG Commodities Research, Bloomberg

IEA sees global gas demand rise to 4 Tcm by 2022, driven by industry

Demand from the industrial sector becomes the main engine of gas consumption growth, replacing power generation, where gas is being squeezed by growing renewables and competition from coal, the International Energy Agency (IEA) says in its latest five-year forecast Gas 2017. Global gas demand is forecast to rise from 3,630 bcm today to nearly 4,000 billion cubic meters (bcm) by 2022.

Demand for natural gas is forecast to rise 1.6% per annum worldwide over the coming five years, with over 40% of this demand growth coming from China. Domestic US gas demand is also on the rise, driven by the industrial and petrochemical sector, however more than half of the country's substantial gas production volumes will be used for LNG exports.

Thanks to the "remarkable growth in its domestic shale industry," the United States is expected to cater for 40% of the world's extra gas production through to 2022. By the middle of the next decade, the IEA sees the United States "on course to challenge Australia and Qatar for global leadership among LNG exporters."

By 2022, gas production in the United States is forecast to reach 890 bcm, or more than a fifth of global gas output. Production from the Marcellus, one of the world's largest fields, will increase by 45% between 2016 and 2022, even at current low price levels, as producers increase efficiency and produce more gas with fewer rigs.

US shale gale drives global price competition

"The US shale revolution shows no sign of running out of steam and its effects are now amplified by a second revolution of rising LNG supplies," Dr Fatih Birol, the IEA's executive director, said. "Also, the rising number of LNG consuming countries, from 15 in 2005 to 39 this year, shows that LNG attracts many new customers, especially in the emerging world. However, whether these countries remain long-term consumers or opportunistic buyers will depend on price competition."

Shale fracking in the US will supply 40% of the world's extra gas production by 2022

Global gas markets are being transformed by the diversification of supply that becomes available under more flexible terms of trade which challenges traditional business models of gas utilities and is transforming the perception of global gas security.

A new wave of liquefaction capacity is coming online at a time when the LNG market is already well supplied. This LNG glut is already affecting price formation and traditional business models – and attracting new LNG-consuming countries like Pakistan, Thailand and Jordan, Dr Birol explained. At the same time, this ample availability of LNG is also creating new competition with pipeline gas supplies, which is loosening pricing and contractual rigidities that have traditionally characterized long-distance gas trade. ■

Gas growth to outstrip all other energy sources

Spurred by the global expansion in LNG supply and trade, the growth of natural gas supply in absolute terms will outperform that of all other energy sources, notably coal and oil, CEDIGAZ said in its latest *Medium and Long Term Natural Gas Outlook 2017*. According to projections made by the Paris-based energy consultants, the share of gas in the world primary energy supply will rise from 21.2% in 2014 to 23.9% in 2035.

"Gas is viewed as a bridging resource in the transition towards an increasingly renewable-based and decarbonised energy system," Cedigaz analysts wrote. Growth in global gas supply is underpinned by an abundance of both conventional and unconventional resources, which will "help gas to expand its role in the energy mix to the detriment of coal and oil."

Middle East and China drive global demand growth

Demand is seen rising at a gradual pace of 1.6% per annum over the forecast period.

"China and the Middle East lead the way in gas demand growth, accounting for respectively 28% and 24% of the incremental volume over the projection period," the report stated. "At the national level, the largest growths in gas demand are recorded in China, India, Iran, the US and Saudi Arabia."

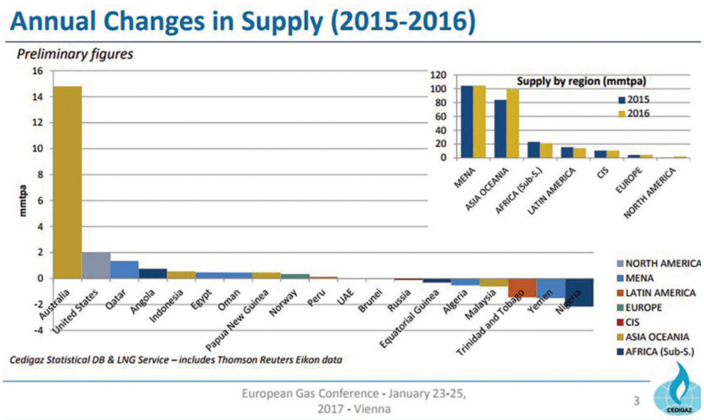
Inter-regional, or long distance trade, is anticipated to rise by 3.1% a year from 392 billion cubic metres in 2015 to 729 Bcm in 2035. It thus forecast to increase much faster than demand, as import dependence grows both in Europe and Asia. In these two markets, the diversity of both pipeline and LNG sources tends to improve the security of supply.

CIS pipeline gas China vs. US LNG to Asia

"The largest growths in inter-regional flows come from CIS exports to China and US LNG exports to Asian emerging countries," the report reads. Cedigaz expects that inter-regional pipeline flows will increase by around 2%per annum and Europe will remain 30% dependent on Russian gas, which will maintain its competitiveness.

"LNG increases more rapidly than pipeline gas. The share of LNG in inter-regional flows will grow from 44% t in 2015 to 55%in 2035," according to Cedigaz estimates. International LNG trade is seen grow by 3.7% a year to 669 Bcm in 2035, with Asian emerging markets set to account for over 70% of the incremental imports.

Post 2023, Cedigaz anticipates that "additional LNG export capacity is required to meet rising natural gas demand." ■



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In two minds: New York's tenuous relationship with natural gas

New York State has an ambiguous relation with natural gas: Although manufacturers and power producers are benefitting from cheap shale gas from Marcellus, two major transmission pipeline projects – Constitution and Millennium Pipeline – have been halted by state regulators. Project developers pursue their options at the Federal Energy Regulatory Commission (FERC) and in court.

In both cases, the New York State Department of Environmental Conservation (NYSDEC) rejected critical Section 401 water permits. And Millennium Pipeline's projects, while not halted, have seen delays and significant cost increases due to NYSDEC's adverse ruling.

There are a total of 12 pipeline projects planned to go through New York for a total of 4.5 Bcf/d in capacity by the end of 2019 (see chart). At least three of the projects are stalled, including the aforementioned Constitution and Northern Access 2016 projects, and Access Northeast is pending due to issues with other Northeast states, not New York.

Political roadblocks

New England gets about half of its electricity from natural gas, but because of infrastructure constraints, its electric prices are nearly 60% higher than the national average. That could change by accessing the most economically-priced gas supply basin in the country via the Constitution Pipeline.

Dena Wiggins, president and CEO of the Natural Gas Supply Association, noted the ripple effect of New York policy. "By denying the permits, they've also thrown a roadblock in the ability of other states to access the natural gas they need for clean electricity, winter heating and industrial manufacturing.

"While states have a role in pipeline permitting, Congress did not intend for one state to be able to unilaterally veto a federally approved project," she said. Still, as Point Logic sees it, New Yorkers can expect at least eighteen more months of a Mark Cuomo second term and strong hints indicate a possible run at a three-term governorship.

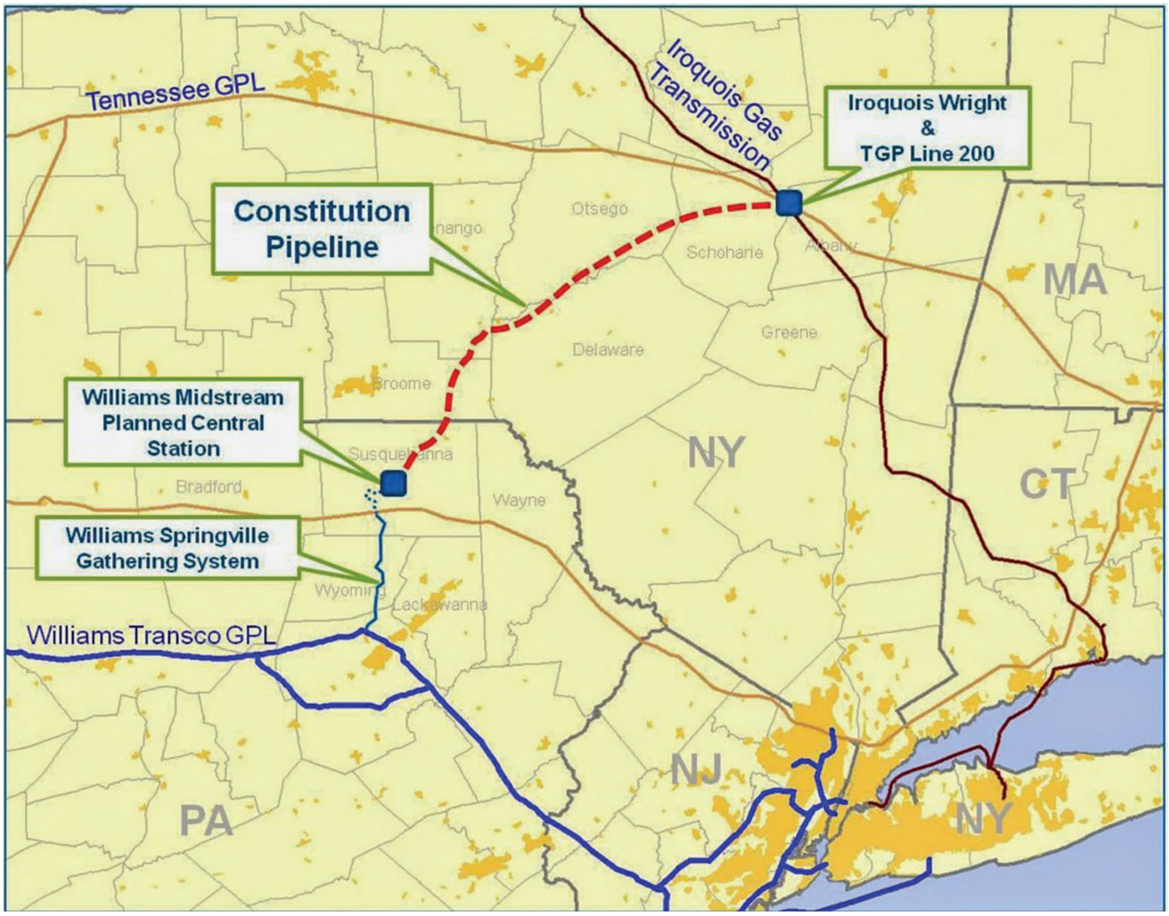
Forgone opportunities

Marcellus producers, unsurprisingly, are not happy with the NYSDEC and the fracking ban. Shippers like Cabot Oil and Gas – which is also a partner on Constitution Pipeline – have commented frequently about the missed opportunities.

Cabot Oil CEO Dan Dinges said he expected continual improvements in differentials through 2018 and 2019, "[but] if Constitution is placed in service in 2018 or early 2019, that will have an even further positive impact on pricing, as those volumes will reach favourable markets in the northeast."

As a major partner on Constitution Pipeline, Williams spokesperson Keith Isbell agrees with Cabot's view and pointed out the hypocrisy of the state's political leadership regarding energy: "In New York, Constitution Pipeline was specifically called out in the New York State 2015 Energy Plan as critical gas transmission infrastructure necessary to meet New York's expanding energy needs.

"The Plan called for a steady increase in natural gas usage between 2015 and 2030, with natural gas providing the largest share of any single fuel source by 2030, at around 38%. Limited access to additional gas supply could jeopardize billions in infrastructure investments and contribute to future gas and power price spikes in the region."



Limited access to Marcellus gas

The contrast of production growth or lack

Pipeline Project	Pipeline	2017 Q3	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2019 Q3	2019 Q4
CPV Valley Lateral Project	Millennium Pipeline		127	127	127	127	127	127	127	127	127
New Market Project	Dominion Transmission		112	112	112	112	112	112	112	112	112
Connecticut Expansion Project	Tennessee Gas Pipeline		72	72	72	72	72	72	72	72	72
Northern Access 2016 Project	National Fuel Gas Supply			497	497	497	497	497	497	497	497
Atlantic Bridge Project	Algonquin Gas Transmission				133	133	133	133	133	133	133
Eastern System Upgrade Project	Millennium Pipeline					223	223	223	223	223	223
South-to-North (SoNo) Project	Iroquois Gas Transmission						650	650	650	650	650
Wright Interconnect Project	Iroquois Gas Transmission						650	650	650	650	650
Empire North Expansion Project	Empire Pipeline						300	300	300	300	300
Access Northeast Project	Algonquin Gas Transmission										925
Constitution Pipeline Project	Constitution Pipeline										650
Lambertville-East Project	Texas Eastern Transmission										180
Grand Total		-	311	808	941	1,164	2,764	2,764	2,764	2,764	4,519

thereof in New York with its Pennsylvania neighbour is quite dramatic, according to Point Logic analyst Warren Waite said. "In three short years, New York gas production decreased 0.02 Bcf/d to average 0.04 Bcf/d in 2016.

"Meanwhile, Pennsylvania dry gas production skyrocketed, growing 5.3 Bcf/d to average 14.2 Bcf/d in 2016 compared to 2013. And a lot more is coming, but hardly any of that growth will benefit New York or New England.

"New York has ridden on the co-attails of the Marcellus and Utica Shale boom in terms of the influx of cheap gas that passes through the Empire State. In terms of pipeline gas flows, nearly 1 Bcf/d of incremental inflows from Pennsylvania entered New York while net imports from Canada have declined by roughly 0.9 Bcf/d when comparing the first five months of 2017 against the same period in 2013."

But the system is stretched until some of these projects passing through the state are approved and built. "Without new takeaway projects from the Marcellus that deliver clean-burning and low-cost natural gas into New York and beyond, future production growth, specifically in Northeast Pennsylvania, is limited," Waite stressed.

Adverse economic effects

Business Council of New York pointed out the adverse economic effect of the stalled pipeline projects: "Every $100 million of investment in new infrastructure creates, on average, 70 jobs and adds roughly $139 million in value to the economy."

Total natural gas demand nationally is expected to increase by 40% over the next decade, according to the National Association of Manufacturers. Much of this demand will be driven by manufacturers, which account for 80% of private sector industrial consumption.

"Unfortunately, many areas of New York State are not served – or are underserved – by natural gas infrastructure. To grow high-value, high-paying manufacturing and construction jobs, New York State must insure access to reliable natural gas supplies," commented Brian McMahon New York State Economic Development Council executive director, Brian McMahon.

Republican congressman Tom Reed does not agree with Governor Cuomo's energy politics. "I care about creating an 'all of the above' energy policy and I believe New York has the potential become a leader in energy production.

"Unfortunately, the Governor does not always have the same view toward natural gas and pipeline projects. It is not fair to the people of our region to limit cost-efficient energy sources or prevent good paying jobs in that industry from hiring individuals here." ■

"New York has ridden on the co-attails of the Marcellus and Utica Shale boom in terms of the influx of cheap gas that passes through the Empire State"

- Warren Waite, Point Logic analyst

NEWS NUDGES

US to stay 'net exporter' past 2018

The United States' status as a net exporter is expected to continue for the rest of this year and past 2018 because of growing U.S. natural gas exports to Mexico, declining pipeline imports from Canada, and increasing LNG exports the US Energy Administration (EIA) forecasts.

Meanwhile, Wood Mackenzie principal analyst, Patrick Kirby forecasts oil pricing dynamics will increase, through near-term $50-60 range.

Texas oil and gas boost

The Texas Alliance of Energy Producers said natural gas prices in July averaged $2.84 per thousand feet, increasing the value of Texas-produced gas by 2.3 percent to nearly $1.9 billion. Sizeable year-on-year improvements in the rig count, drilling permits and the value of Texas-produced crude oil and natural gas combined to push the Texas Petro Index up in July to 176.9, the eighth straight monthly increase.

However, it is in oil where Texas and the US are excelling. "OPEC production curtailments did not achieve the desired price outcome," said spokesman Karr Ingham.

"Oil supplies remain plentiful because domestic producers are becoming increasingly efficient at producing crude oil at lower costs, so a $45 per barrel (US) oil market provides more incentive than in the past," added Ingham, referring to the West Texas Intermediate (WTI) US benchmark oil price.

Florida LNG bunkering

Jax LNG, the port bunkering project in Jacksonville in Florida, has received a Letter of Acceptance (LOA) for the facility from the United States Coast Guard and approval to conduct ship-to-ship LNG fuel operations with the LNG barge "Clean Jacksonville". The expectation is that ship-to-ship LNG bunkering will start in early 2018.

Jax LNG already supplies fuel for the LNG-fueled container ships of US shipping line TOTE Maritime. The fuel is supplied by Pivotal LNG.

Chart Industries senses turnaround

US liquefaction and storage equipment maker Chart Industries, reported a second-quarter drop in net income, though the company sensed an industry turnaround as orders began to increase for US LNG export projects and storage applications in Asia.

Chart made net profits of $2.8 million in the three months to the end of June compared with $21.2M in the same quarter of 2016.

The second quarter of 2016 had included several short lead-time replacement equipment sales and contract expiration fees related to projects in the Energy & Chemicals segment, including LNG liquefaction equipment.

The Ohio-based company said order activity continued to increase in the year to date across the company's three segments, with $252.6M in orders received in the quarter, increasing backlog to $367.2M.

"E&C orders increased 70 percent over the first quarter of 2017, driven by natural gas demand in both petrochemical and LNG export projects.

"Specifically, order and quotation activity related to equipment for cryogenic gas plant development has generated 11 related orders year-to-date compared to zero in 2016," the company stated.

"Natural gas demand is driving new gas transmission pipelines in West Texas and the Northeast Marcellus shale creating additional opportunity for air cooled heat exchangers," said Chart.

Distribution & Storage orders increased 12 percent over the first quarter of 2017, driven by strength in Asia LNG applications for on-site power generation and LNG distribution.

There was also continued strength in US packaged gas for use in the industrial gas, medical supply, LNG vehicle tank sectors.

Looking at the first-half figures Chart swung to a six-month loss of $129,000 compared with a profit of $16.5M in the first half of 2016.

However, sales for the second quarter increased to $238.2M from $204.1M in the first quarter of the year, with sequential increases in all three segments.

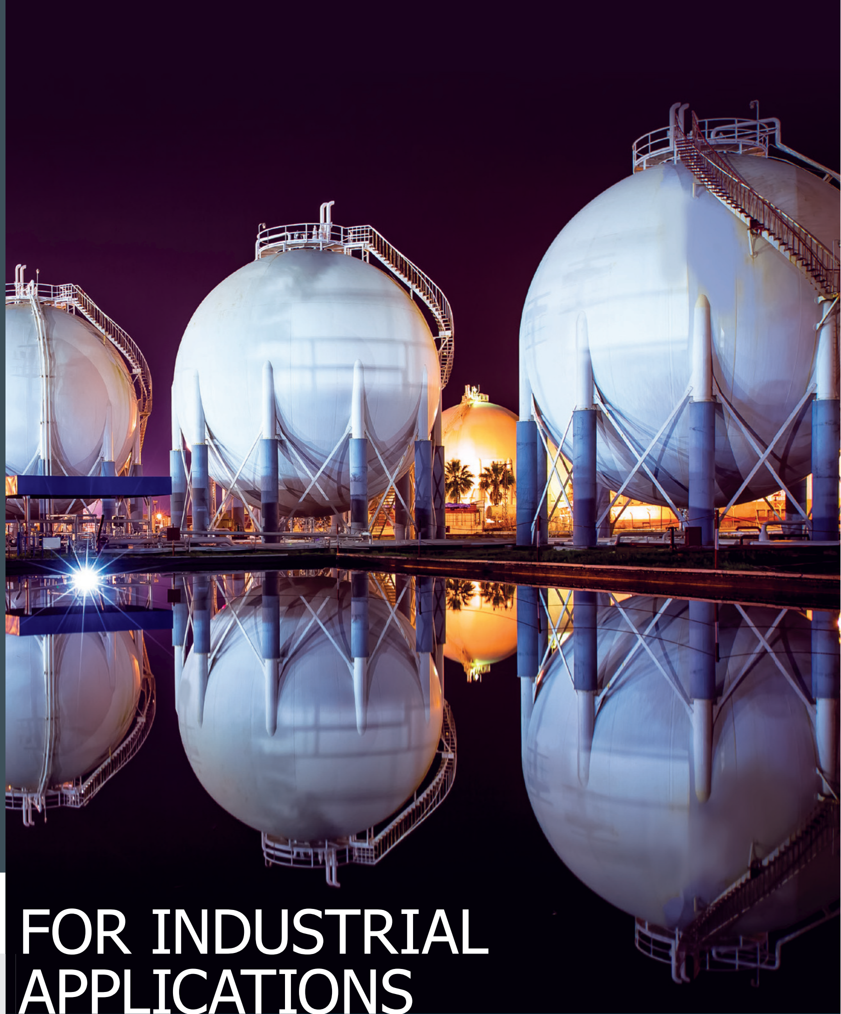
"Gross profit for the second quarter was $63.2M, or 26.5 percent of sales, which was unfavorably impacted by $2M of restructuring costs," said Chart.

"In addition to our strength in orders and bookings across the segments, I am pleased with the progress of our restructuring activities, and the use of our strong balance sheet for both productivity investment and strategic M&A," stated Bill Johnson, Chart's Chief Executive and President.

"We are excited about the addition of Hudson to our E&C segment and expect it to be earnings per share (EPS) accretive in 2018," he said in reference to the acquisition of the Texas-based company Hudson Products.

"Not only does Hudson expand our service and repair offering, the exposure to a broader set of end-markets including petrochemical and power generation offsets some of our typical LNG cyclicality," added Johnson.

The Hudson acquisition is expected to close in the third quarter of 2017 following satisfaction of customary closing conditions, including receipt of the required regulatory approvals. ■



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