S&P Global
Platts

# GAS DAILY

Wednesday, November 14, 2018

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- More projects still required to meet demand
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### Nueva Era cross-border gas deliveries from US rise

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- Pipeline system faced delays before starting up over summer

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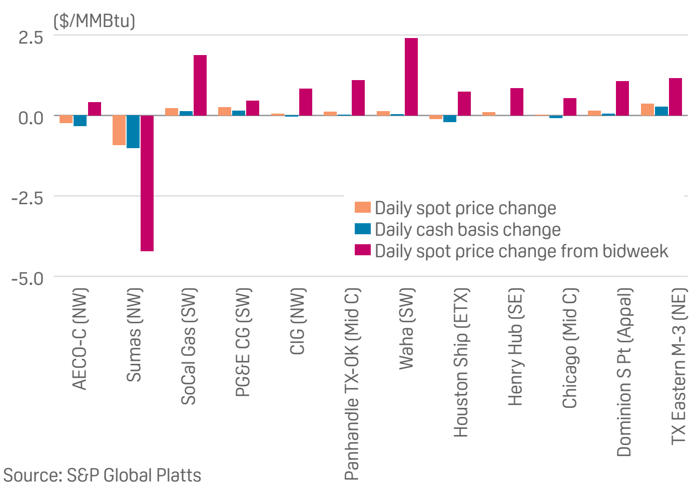
## SPOT PRICE AND BASIS CHANGES




Source: S&P Global Platts

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## FINAL DAILY PRICE SURVEY - PLATTS LOCATIONS ($/MMBtu)

NATIONAL AVERAGE PRICE: 4.990
Trade date: 13-Nov
Flow date(s): 14-Nov

Powered by ICE

| | | Midpoint | +/- | Absolute | Common | Vol. | Deals |
|---|---|---|---|---|---|---|---|
| **Northeast** | | | | | | | |
| Algonquin, city-gates | IGBEE21 | 8.240 | +3.680 | 7.000-9.510 | 7.615-8.870 | 135 | 31 |
| Algonquin, receipts | IGBDK21 | 4.410 | +0.530 | 4.410-4.410 | 4.410-4.410 | 2 | 2 |
| Dracut, Mass. | IGBDW21 | 11.000 | +5.500 | 10.500-11.500 | 10.750-11.250 | 8 | 5 |
| Iroquois, receipts | IGBCR21 | 4.765 | +0.565 | 4.400-5.060 | 4.600-4.930 | 716 | 197 |
| Iroquois, zone 1 | IGBRP21 | 5.055 | +0.815 | 4.750-5.655 | 4.830-5.280 | 169 | 51 |
| Iroquois, zone 2 | IGBEJ21 | 5.285 | +1.080 | 4.550-6.750 | 4.735-5.835 | 336 | 72 |
| Niagara | IGBCS21 | 4.215 | +0.245 | 4.180-4.350 | 4.180-4.260 | 105 | 14 |
| Tennessee, z5 (200 leg) | IGBRQ21 | 5.615 | +1.275 | 5.000-6.250 | 5.305-5.930 | 150 | 24 |
| Tennessee, z6 (300 leg) del. | IGBJC21 | — | — | — | — | — | — |
| Tennessee, zone 6 del. | IGBEI21 | 8.505 | +3.790 | 7.000-11.300 | 7.430-9.580 | 178 | 41 |
| Tx. Eastern, M-3 | IGBEK21 | 4.185 | +0.370 | 4.080-4.370 | 4.115-4.260 | 490 | 99 |
| Transco, zone 5 del. | IGBEN21 | 4.325 | +0.280 | 4.260-4.500 | 4.265-4.385 | 1159 | 198 |
| Transco, zone 5 del. North | IGCGL21 | 4.310 | +0.240 | 4.270-4.350 | 4.290-4.330 | 139 | 30 |
| Transco, zone 5 del. South | IGCHL21 | 4.330 | +0.295 | 4.260-4.500 | 4.270-4.390 | 1005 | 167 |
| Transco, zone 6 N.Y. | IGBEM21 | 4.425 | +0.470 | 4.280-4.750 | 4.310-4.545 | 369 | 72 |
| Transco, zone 6 non-N.Y. | IGBEL21 | 4.300 | +0.420 | 4.170-4.450 | 4.230-4.370 | 518 | 131 |
| Transco, zone 6 non-N.Y. North | IGBJS21 | 4.300 | +0.420 | 4.170-4.450 | 4.230-4.370 | 518 | 130 |
| Transco, zone 6-non-N.Y. South | IGBJT21 | 4.410 | +0.400 | 4.410-4.410 | 4.410-4.410 | 0.25 | 1 |
| **Northeast regional average** | IGCAA00 | **5.715** | | | | | |
| **Appalachia** | | | | | | | |
| Columbia Gas, App. | IGBDE21 | 3.905 | +0.175 | 3.800-3.975 | 3.860-3.950 | 947 | 188 |
| Columbia Gas, App. non-IPP | IGBJU21 | — | — | — | — | — | — |
| Dominion, North Point | IGBDB21 | 3.855 | +0.165 | 3.835-3.870 | 3.845-3.865 | 246 | 52 |
| Dominion, South Point | IGBDC21 | 3.840 | +0.155 | 3.815-3.890 | 3.820-3.860 | 1035 | 175 |
| Lebanon Hub | IGBFJ21 | 4.005 | +0.130 | 3.980-4.055 | 3.985-4.025 | 62 | 17 |
| Leidy Hub | IGBDD21 | — | — | — | — | — | — |
| Millennium, East receipts | IGBIW21 | 3.940 | +0.170 | 3.920-3.970 | 3.930-3.955 | 129 | 35 |
| Tennessee, zone 4-200 leg | IGBJN21 | 3.940 | +0.200 | 3.890-3.970 | 3.920-3.960 | 323 | 85 |
| Tennessee, zone 4-300 leg | IGBFL21 | 3.925 | +0.210 | 3.920-3.960 | 3.920-3.935 | 189 | 51 |
| Tennessee, zone 4-313 pool | IGCFL21 | 3.910 | +0.195 | 3.880-3.940 | 3.895-3.925 | 224 | 53 |
| Texas Eastern, M-2 receipts | IGBJE21 | 3.810 | +0.135 | 3.740-4.120 | 3.740-3.905 | 1087 | 188 |
| Transco, Leidy Line receipts | IGBIS21 | 3.950 | +0.155 | 3.900-4.030 | 3.920-3.985 | 483 | 123 |
| **Appalachia regional average** | IGDAA00 | **3.910** | | | | | |
| **Midcontinent** | | | | | | | |
| ANR, Okla. | IGBBY21 | 3.910 | +0.075 | 3.850-3.945 | 3.885-3.935 | 179 | 30 |
| Enable Gas, East | IGBCA21 | 4.130 | +0.200 | 4.035-4.350 | 4.050-4.210 | 160 | 30 |
| NGPL, Amarillo receipt | IGBDR21 | 3.970 | +0.015 | 3.930-4.040 | 3.945-4.000 | 115 | 19 |
| NGPL, Midcontinent | IGBBZ21 | 3.830 | +0.065 | 3.700-3.970 | 3.765-3.900 | 758 | 105 |
| Oneok, Okla. | IGBCD21 | 3.745 | +0.565 | 3.600-3.850 | 3.685-3.810 | 347 | 47 |
| Panhandle, Tx.-Okla. | IGBCE21 | 3.870 | +0.115 | 3.800-3.900 | 3.845-3.895 | 366 | 74 |
| Southern Star | IGBCF21 | 3.920 | +0.130 | 3.920-3.920 | 3.920-3.920 | 10 | 2 |
| Tx. Eastern, M-1 24-in. | IGBET21 | 4.100 | +0.155 | 4.100-4.100 | 4.100-4.100 | 10 | 4 |
| **Midcontinent regional average** | IGEAA00 | **3.935** | | | | | |
| **Upper Midwest** | | | | | | | |
| Alliance, into interstates | IGBDP21 | 4.055 | +0.060 | 3.965-4.230 | 3.990-4.120 | 1170 | 132 |
| ANR, ML 7 | IGBDQ21 | 4.080 | +0.055 | 4.010-4.150 | 4.045-4.115 | 88 | 9 |
| Chicago city-gates | IGBDX21 | 4.060 | +0.020 | 4.000-4.200 | 4.010-4.110 | 1153 | 154 |
| Chicago-Nicor | IGBEX21 | 4.045 | +0.000 | 4.000-4.200 | 4.000-4.095 | 264 | 56 |
| Chicago-NIPSCO | IGBFX21 | 4.060 | +0.010 | 4.000-4.150 | 4.025-4.100 | 319 | 39 |
| Chicago-Peoples | IGBGX21 | 4.060 | +0.020 | 4.000-4.180 | 4.015-4.105 | 540 | 58 |
| Consumers city-gate | IGBDY21 | 4.035 | +0.130 | 3.980-4.130 | 4.000-4.075 | 358 | 59 |
| Dawn, Ontario | IGBCX21 | 4.150 | +0.160 | 3.960-4.260 | 4.075-4.225 | 847 | 104 |
| Emerson, Viking GL | IGBCW21 | 4.080 | +0.060 | 3.980-4.170 | 4.035-4.130 | 304 | 72 |
| Mich Con city-gate | IGBDZ21 | 3.995 | +0.125 | 3.935-4.105 | 3.955-4.040 | 1465 | 191 |
| Northern Bdr., Ventura TP | IGBGH21 | 4.015 | -0.065 | 3.960-4.150 | 3.970-4.065 | 282 | 47 |
| Northern, demarc | IGBDV21 | 4.010 | -0.075 | 3.980-4.140 | 3.980-4.050 | 346 | 46 |
| Northern, Ventura | IGBDU21 | 4.005 | -0.065 | 3.930-4.180 | 3.945-4.070 | 777 | 125 |
| REX, Zone 3 delivered | IGBRO21 | 3.980 | +0.075 | 3.930-4.090 | 3.940-4.020 | 1398 | 202 |
| **Upper Midwest regional average** | IGFAA00 | **4.040** | | | | | |

## New FIDs in 2018 easing risk of abrupt LNG tightening in mid-2020s: IEA

- **More projects still required to meet demand**
- **Credit and investment strategies provide opportunities**

The recent pickup in approvals of new liquefaction capacity in the US, Canada and Qatar after a relative lull has boosted hopes that a feared global supply shortage next decade will be averted, though LNG market uncertainty remains heading into a pivotal time for project decisions, the International Energy Agency said Tuesday in its annual World Energy Outlook.

Because export terminals and the infrastructure needed to turn the LNG back into pipeline-ready gas can take years and billions of dollars to complete, 2019 is seen as a make-or-break year for a number of developers.

A steady flow of additional projects will still be required to meet LNG demand around the mid-2020s, whereas oil and coal, by comparison, currently enjoy easier paths to market, IEA said.

"Even if more natural gas is traded on spot markets, the reliance of gas on capital intensive infrastructure means that the gas business always requires a long-term horizon," the agency said in its report. "New LNG investment decisions are starting to come through, but it remains challenging to reconcile buyer expectations of greater flexibility on contractual terms with supplier needs for bankable longer-term commitments."

The US, with a handful of projects under construction and more than a dozen with federal permitting schedules, is a key part of that equation.

Total US liquefaction capacity is expected to reach 9.6 Bcf/d by late 2021, based on the projects currently under construction. By the mid-2020's, S&P Global Platts Analytics expects a robust second wave expansion of North American export capacity to further drive export demand next decade. Of this new capacity, LNG Canada is the only project that has made FID.

Venture Global's proposed 10 million mt/year Calcasieu Pass LNG project in Louisiana is boasting industry-leading liquefaction costs of around $450/ton and has secured firm contracts for most of its available capacity. Further commercial interest appears to be materializing for a sixth train at Cheniere Energy's Sabine Pass terminal, also in Louisiana, and Freeport LNG signed a 2.2 million mt/year preliminary agreement with Sumitomo for capacity on its fourth train at its Texas facility.

Even Mexico is now in the running, with Sempra Energy announcing last week it had signed a 9 million mt/year memorandum of understanding, which included potential offtake capacity at both its Cameron LNG Phase 2 expansion and its proposed Energia Costa Azul export project in Baja California.

Nearly one-third of LNG transactions are currently taking place outside the long-term supply framework, while growing price transparency, benchmark robustness and liquidity in the derivatives markets continue to enhance the market's hedging capabilities.

Against this backdrop, there are two imperatives for exporters and suppliers, the IEA said: first, to ensure that cost-effective investment ensures the competitiveness of gas against other fuels; and second, to burnish the fuel's environmental credentials through concerted efforts to reduce methane emissions.

While projects that can come to market quickly and at a low cost — such as the Qatari expansion and, to a lesser extent, the US brownfield projects — are the ones most amenable to the industry's current focus on capital discipline and short-cycle investments, large-scale greenfield projects can also find a place in the new gas order supported by new emerging market solutions, IEA said.

### Market solutions

Large aggregators can underpin new supply capacity on the strength of their balance sheets without necessarily locking in significant long-term volumes, which would help match the volume, tenure and flexibility requirements of smaller buyers across markets.

Elsewhere, for players with less easy access to credit, LNG developers in the US are offering prospective buyers equity stakes in new projects, in exchange for bearing some of the market risk associated with the commissioning of new capacity.

Mid-sized independent players are also experimenting with multiple small-volume and short-term contracts with buyers of various credit ratings, which together can attract enough financing for a larger project, while midstream players are adding power generation capabilities to floating storage and regasification units, tempting buyers to sign up to integrated LNG-to-power solutions.

"In aggregate, these multiple strategies, which in various ways leverage the expanding middle ground and the opportunities to spread market risks more evenly along the value chain, offer scope to ensure the health of the global gas balance," IEA said.

*— Harry Weber, Abache Abreu and Ross Wyeno*

## Mexico gas, power markets expected to stay competitive under AMLO

- **30% to 35% of Pemex gas marketing contracts already transferred**
- **Power technology, generation evolving too rapidly for interference**
- **Oil industry likely to be highly politicized by incoming administration**

Mexico's gas and power markets could remain largely insulated from the political risks posed by the incoming Lopez Obrador administration, as it looks to strengthen state entities, which could lead to a reduction in competition.

The recent transfer of natural gas market share away from Pemex to a handful of private companies is already a good sign, according to James Fowler, senior energy analyst with ICIS Heren.

"You now have companies, such as BP and Shell, that are active in the market," Fowler said Tuesday at the US-Mexico Natural Gas Forum in San Antonio, Texas.

Fowler estimates that about 30% to 35% of Pemex's natural gas retail business has already been transferred to other marketers — representing approximately 1.5 Bcf/d of gas.

According to S&P Global Platts Analytics, gas demand in Mexico currently averages about 7.8 Bcf/d, including demand from state entities, CFE and Pemex.

While Mexico's growing reliance on US gas imports certainly doesn't preclude the narrowing of competition under Lopez Obrador's administration, the much-needed growth in Mexico's domestic gas production likely will require more competition and more investment from foreign producers.

### Power

In the power sector, meanwhile, the rapid evolution of technology and the proliferation of new sources of power generation have effectively insulated Mexico's electricity market from political tinkering, according to Tony Payan, director of the Mexico Center at Rice University's Baker Institute.

"I think the electricity market is probably quite a safe bet," Payan said Tuesday at the forum. "It's already evolved and it's way past the Mexican government."

While Payan expects that technology and markets in Mexico's power sector will continue to develop, he also warned that wind and solar projects could face obstacles, along with nearly every other infrastructure project in Mexico that requires a right-of-way.

"Dealing with the local communities is going to be difficult," he said, especially under the Lopez Obrador administration.

According to Payan, 51% of all Mexican territory is communal land, meaning that collectives of farmers, ranchers and indigenous communities have the final say on its use. That often requires unanimous or near-unanimous consent among all of the community's members.

"These local communities are very skeptical of companies that come in, … make a promise and don't fulfill it." Payan said. "They have a long, long experience of the lack of rule of law."

### Oil

In contrast to the gas and power markets, the exploration and development of Mexico's oil reserves are likely to be highly politicized under the Lopez Obrador administration, Payan said.

Companies looking to invest in the upstream will be forced to work even more closely with Pemex than they were under the current Peña Nieto administration, and they'll face significant scrutiny.

"The construction of the Mexican state in the 20th century was largely around oil." Payan said. "It's going to draw the most nationalistic attention."

That's likely to be true under an administration whose leader has promised to slash Mexico's exports of crude oil, simultaneously increase the country's refining capacity, and eliminate imports of gasoline.

According to Fowler, many of the supporters of the Lopez Obrador administration believe it will slow private investment and reinvigorate Mexico's domestic oil industry — a belief that contrasts starkly with the reality of declining oil production and investment.

"There's going to be increased scrutiny on any kind of private contract — any kind of private investment in the energy sector," Fowler said, "purely because of the ideology in the new government."

— *J. Robinson*

## DOE looks for 'win for everybody' in LNG exports to Europe

- **Difficult to compete with pipeline gas**
- **Faced with US LNG competition, Russia cut prices**

A top US Department of Energy official said the Trump administration has made progress in its effort to spur European imports of US liquefied natural gas.

Under Secretary of Energy Mark Menezes cited recent developments: Cheniere Energy landed a deal to supply LNG to Poland, and Germany has discussed the prospect of a new receiving terminal. But he said the case for US LNG is not driven by economics alone.

"True energy security requires energy diversity: a diversity of supply, diversity of countries providing that supply, and a diversity of routes delivering that supply," Menezes said Tuesday at the Atlantic Council in Washington. "Yet this is where many of our European partners are facing significant challenges."

The Trump administration has pushed Europe to import more US LNG amid trade tensions between the US and Europe and concerns over Europe's dependence on Russian supply. Menezes pointed to indications from the German government that it would financially back an LNG terminal as a positive step, even though experts have said such a project might not lead to US LNG imports.

Little US LNG reaches Europe. Regasification plants with a total import capacity of 20 Bcf/d are underused as expansions of these facilities have far exceeded demand for LNG imports. The European Union received 37% of its gas imports from Russia in 2017, according to figures from the European Commission.

"They are underutilized — that can be the end of the discussion," Menezes said. "But do we accomplish any of the goals that we've been talking about?"

### Infrastructure

"We want to make sure that there is infrastructure in place to allow for the import of US LNG," Menezes said. "If the consequence of that is to have a facility which will bring the price down for our European partners and allies, then indeed increase supply at an affordable price. It's a win for everybody."

In the last few years, the increasing probability of US LNG landing in Europe prompted Russia to offer lower gas prices and revise contracts with terms more favorable to buyers. In Lithuania, for example, Russia offered lower prices for pipeline gas before the first LNG cargo arrived, said Christopher Smith, Cheniere senior vice president of policy, government and public affairs. Smith, who was assistant secretary for fossil energy at DOE under the Obama administration, was part of the discussion with Menezes.

Cheniere wants to provide more to European customers than just leverage in its negotiations with Russia, Smith said. "We actually want to send the gas," he said.

That makes long-term sales and purchase agreements important, Smith said. Cheniere recently reached a 24-year LNG supply deal with Polish Oil and Gas. The deal calls for the state-run oil and gas company to buy shipments at volumes rising to about 1.45 million tonnes per