

GAS DAILY

Thursday, June 14, 2018

NEWS HEADLINES

Analysts call for 88 Bcf injection to storage

- Storage fields added 536 Bcf this season
- Net injections dip in three of five storage regions

[\(continued on page 2\)](#)

Leach XPress force majeure moves prices, output

- Restoration continues, Stagecoach could soon return
- Production rerouting to alternative pipelines

[\(continued on page 3\)](#)

LaFleur highlights GHG estimate in project order

- Commission denies rehearing on Tennessee expansion
- Just asking would be 'exercise in futility': FERC

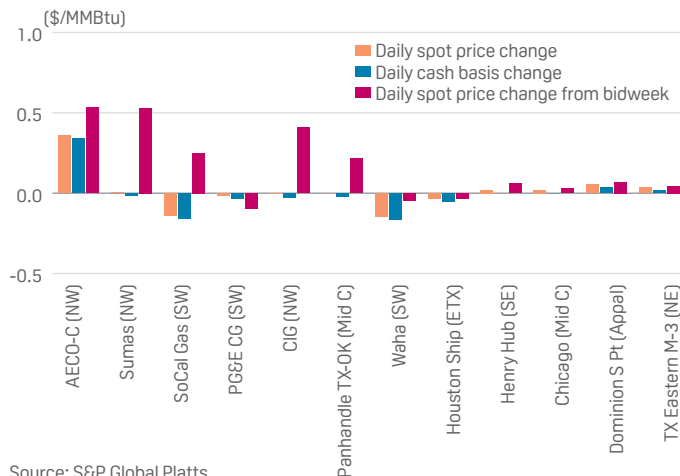
[\(continued on page 4\)](#)

Exports to drive competition for gas buyers

- Demand for long term firm-transportation contracts to rise
- Additional northeast pipelines needed, buyers say

[\(continued on page 5\)](#)

SPOT PRICE AND BASIS CHANGES



INSIDE THIS ISSUE

- Global LNG trade jumped 10.3% to 393 Bcm in 2017: BP 6
- BP questions pace of US tight oil growth as productivity fades 6
- Court frees gas producer to pursue multi-million dollar case 7
- Energy Transfer's Rover agrees to pay \$430,000 on water violations 7
- NYMEX July gas futures settle at \$2.963/MMBtu 9
- Regional Gas Markets 10
- Gas Daily Supplement Links 14

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

NATIONAL AVERAGE PRICE: 2.610

Trade date: 13-Jun

Flow date(s): 14-Jun

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		Midpoint	+/-	Absolute	Common	Vol.	Deals
Northeast							
Algonquin, city-gates	IGBEE21	2.500	+0.055	2.420-2.550	2.470-2.535	94	19
Algonquin, receipts	IGBDK21	3.200	+0.920	3.200-3.200	3.200-3.200	10	1
Dracut, Mass.	IGBDW21	—	—	—	—	—	—
Iroquois, receipts	IGBCR21	2.750	+0.020	2.700-2.780	2.730-2.770	36	10
Iroquois, zone 2	IGBEJ21	2.815	+0.070	2.775-2.830	2.800-2.830	73	13
Niagara	IGBCS21	2.590	+0.025	2.580-2.600	2.585-2.595	47	7
Tennessee, z6 (300 leg) del.	IGBJC21	—	—	—	—	—	—
Tennessee, zone 6 del.	IGBEI21	2.690	+0.055	2.650-2.750	2.665-2.715	24	11
Tx. Eastern, M-3	IGBEK21	2.335	+0.035	2.280-2.400	2.305-2.365	239	54
Transco, zone 5 del.	IGBEN21	2.985	+0.030	2.900-3.005	2.960-3.005	294	25
Transco, zone 5 del. North	IGCGL21	2.975	+0.025	2.900-3.005	2.950-3.000	40	6
Transco, zone 5 del. South	IGCHL21	2.985	+0.020	2.950-2.990	2.975-2.990	254	19
Transco, zone 6 N.Y.	IGBEM21	2.800	-0.060	2.780-2.850	2.785-2.820	107	16
Transco, zone 6 non-N.Y.	IGBEL21	2.800	-0.010	2.730-2.830	2.775-2.825	80	18
Transco, zone 6 non-N.Y. North	IGBJS21	2.800	-0.010	2.730-2.830	2.775-2.825	80	18
Transco, zone 6 non-N.Y. South	IGBJT21	—	—	—	—	—	—
Northeast regional average	IGCAA00	2.745					
Appalachia							
Columbia Gas, App.	IGBDE21	2.815	+0.025	2.800-2.830	2.810-2.825	618	103
Columbia Gas, App. non-IPP	IGBJU21	—	—	—	—	—	—
Dominion, North Point	IGBDB21	2.280	+0.040	2.240-2.350	2.255-2.310	102	22
Dominion, South Point	IGBDC21	2.290	+0.055	2.240-2.400	2.250-2.300	356	76
Lebanon Hub	IGBFJ21	2.695	+0.015	2.690-2.700	2.695-2.700	62	12
Leidy Hub	IGBDD21	—	—	—	—	—	—
Millennium, East receipts	IGBIW21	2.050	-0.010	2.020-2.140	2.020-2.080	21	12
REX, Clarington Ohio	IGBG021	—	—	—	—	—	—
Tennessee, zone 4-200 leg	IGBJN21	2.600	+0.120	2.550-2.610	2.585-2.610	85	26
Tennessee, zone 4-300 leg	IGBFL21	2.030	+0.035	2.000-2.050	2.020-2.045	53	10
Tennessee, zone 4-313 pool	IGCFL21	2.520	+0.090	2.520-2.520	2.520-2.520	10	4
Tennessee, zone 4-Ohio	IGBH021	—	—	—	—	—	—
Texas Eastern, M-2 receipts	IGBJE21	2.235	+0.040	2.200-2.300	2.210-2.260	397	77
Transco, Leidy Line receipts	IGBIS21	2.045	-0.065	2.020-2.100	2.025-2.065	281	58
Appalachia regional average	IGDAA00	2.355					
Midcontinent							
ANR, Okla.	IGBBY21	2.455	+0.015	2.440-2.470	2.450-2.465	128	25
Enable Gas, East	IGBCA21	2.750	-0.045	2.650-2.800	2.715-2.790	132	20
NGPL, Amarillo receipt	IGBDR21	2.550	+0.010	2.540-2.550	2.550-2.550	49	11
NGPL, Midcontinent	IGBBZ21	2.485	+0.045	2.470-2.500	2.480-2.495	480	69
Oneok, Okla.	IGBCD21	1.910	-0.080	1.850-2.000	1.875-1.950	188	30
Panhandle, Tx.-Okla.	IGBCE21	2.425	+0.000	2.390-2.460	2.410-2.445	382	76
Southern Star	IGBCF21	2.475	+0.035	2.465-2.480	2.470-2.480	80	12
Tx. Eastern, M-1 24-in.	IGBET21	2.800	-0.015	2.800-2.800	2.800-2.800	14	5
Midcontinent regional average	IGBAA00	2.480					
Upper Midwest							
Alliance, into interstates	IGBDP21	2.700	+0.025	2.700-2.710	2.700-2.705	583	63
ANR, ML 7	IGBDQ21	—	—	—	—	—	—
Chicago city-gates	IGBDX21	2.730	+0.020	2.700-2.800	2.705-2.755	558	93
Chicago-Nicor	IGBEX21	2.715	+0.025	2.700-2.730	2.710-2.725	210	43
Chicago-NIPSCO	IGBFX21	2.745	+0.025	2.740-2.800	2.740-2.760	280	38
Chicago-Peoples	IGBGX21	2.730	+0.035	2.700-2.750	2.720-2.745	69	12
Consumers city-gate	IGBDY21	2.760	+0.020	2.755-2.770	2.755-2.765	369	61
Dawn, Ontario	IGBCX21	2.760	+0.030	2.735-2.775	2.750-2.770	655	73
Emerson, Viking GL	IGBCW21	2.500	-0.005	2.410-2.530	2.470-2.530	76	22
Mich Con city-gate	IGBDZ21	2.760	+0.020	2.750-2.775	2.755-2.765	833	111
Northern Bdr., Ventura TP	IGBGH21	2.640	+0.035	2.620-2.655	2.630-2.650	78	20
Northern, demarc	IGBDV21	2.595	-0.020	2.570-2.630	2.580-2.610	182	38
Northern, Ventura	IGBDU21	2.635	+0.025	2.620-2.670	2.625-2.650	231	40
REX, Zone 3 delivered	IGBR021	2.690	+0.015	2.665-2.735	2.675-2.710	586	111
Upper Midwest regional average	IGFAA00	2.675					

Analysts call for 88 Bcf injection to US gas storage for seventh build of season

US gas in storage is expected to have increased by 88 Bcf last week as dipping production and rising temperatures foreshadow a string of slightly below-average builds in the weeks ahead, creating a bullish case for end-of-season levels.

The US Energy Information Administration on Thursday is expected to report an 88 Bcf injection for the week ended June 8, according to a survey of analysts by S&P Global Platts.

Responses to the survey were tight and ranged for a build of 81 Bcf to 95 Bcf. The EIA plans to release its weekly storage report at 10:30 am EST. An 88 Bcf injection would be more than the 82 Bcf build in the corresponding week last year but less than the five-year average build of 91 Bcf.

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ASSESSMENT RATIONALE

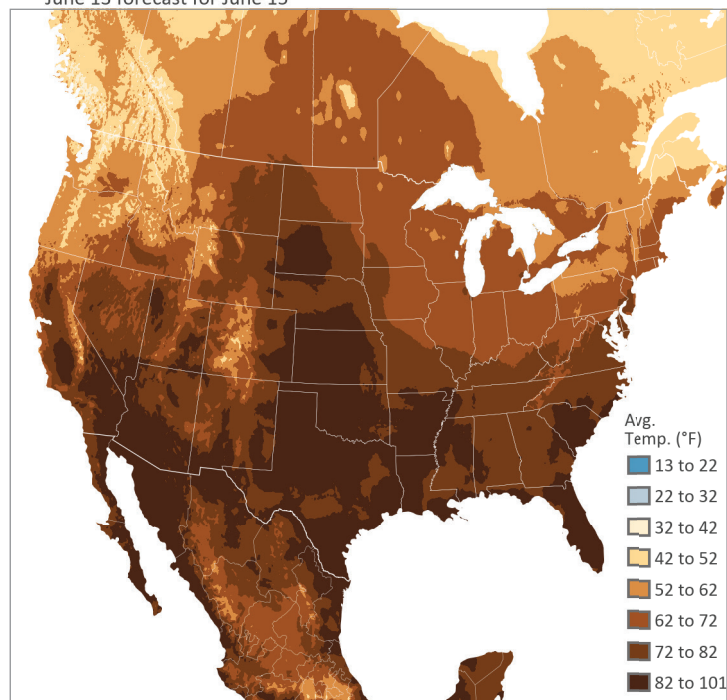
Platts Gas Daily indices are based upon trade data reported to Platts by market participants and the Intercontinental Exchange.

The indices are calculated using detailed transaction level data from these providers. Platts editors screen the data for outliers that may be further examined and potentially removed. A volume weighted average is then calculated from the remaining set of data. For more details on this methodology please see our North American Natural Gas Methodology and Specifications Guide on Platts.com, located at http://www.platts.com/JM/Platts/Content/MethodologyReferences/MethodologySpecs/na_gas_methodology.pdf

Questions may be directed to Ryan Ouwerkerk at 713-655-2202, or ryan.ouwerkerk@spglobal.com

2-DAY-AHEAD TEMPERATURE FORECAST MAP

June 13 forecast for June 15



Source: S&P Global Platts, Custom Weather

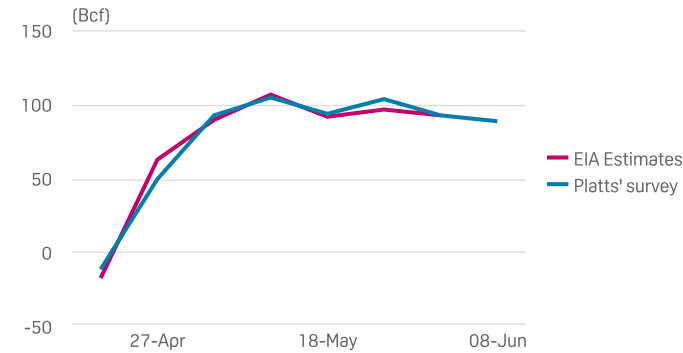
DAILY PRICE SURVEY - FINAL PLATTS LOCATIONS (\$/MMBtu)

Trade date: 13-Jun
Flow date(s): 14-Jun

	Midpoint	+/-	Absolute	Common	Vol.	Deals
East Texas						
Agua Dulce Hub	IGBAV21	—	—	—	—	—
Carthage Hub	IGBAF21	2.765	-0.005	2.750-2.770	2.760-2.770	30 6
Florida Gas, zone 1	IGBAW21	2.865	+0.010	2.855-2.865	2.865-2.865	46 4
Houston Ship Channel	IGBAP21	2.995	-0.035	2.990-3.000	2.995-3.000	40 4
Katy	IGBAQ21	3.000	+0.000	2.990-3.020	2.995-3.010	417 42
NGPL, STX	IGBAZ21	—	—	—	—	—
NGPL, Texok zone	IGBAL21	2.765	+0.010	2.755-2.785	2.760-2.775	87 22
Tennessee, zone 0	IGBBA21	2.760	+0.030	2.750-2.770	2.755-2.765	171 34
Tx. Eastern, ETX	IGBAN21	2.850	+0.120	2.810-2.900	2.830-2.875	26 16
Tx. Eastern, STX	IGBBB21	2.915	-0.060	2.895-2.935	2.905-2.925	156 28
Transco, zone 1	IGBBC21	2.790	+0.040	2.790-2.810	2.790-2.795	28 6
Transco, zone 2	IGBBU21	2.830	-0.040	2.810-2.840	2.825-2.840	3 4
East Texas regional average	IGGAA00	2.855				
Louisiana/Southeast						
ANR, La.	IGBBF21	2.785	+0.045	2.730-2.860	2.755-2.820	57 8
Columbia Gulf, La.	IGBBG21	2.870	+0.055	2.840-2.880	2.860-2.880	182 15
Columbia Gulf, mainline	IGBBH21	2.825	+0.045	2.810-2.830	2.820-2.830	508 80
Florida city-gates	IGBED21	—	—	—	—	—
Florida Gas, zone 2	IGBBJ21	2.870	+0.010	2.860-2.880	2.865-2.875	106 4
Florida Gas, zone 3	IGBBK21	2.915	+0.015	2.880-2.955	2.895-2.935	323 36
Henry Hub	IGBBL21	2.940	+0.020	2.930-2.970	2.930-2.950	273 40
Southern Natural, La.	IGBBQ21	2.890	+0.015	2.880-2.900	2.885-2.895	181 27
Tennessee, zone 1	IGBHI21	2.730	+0.030	2.690-2.755	2.715-2.745	324 57
Tennessee, 500 Leg	IGBBP21	2.880	+0.030	2.875-2.885	2.880-2.885	291 38
Tennessee, 800 Leg	IGBBQ21	2.825	+0.035	2.815-2.830	2.820-2.830	345 56
Tx. Eastern, ELA	IGBBS21	2.810	-0.010	2.795-2.840	2.800-2.820	203 38
Tx. Eastern, M-1 30-in.	IGBDI21	2.850	+0.015	2.850-2.850	2.850-2.850	39 4
Tx. Eastern, WLA	IGBBR21	2.810	-0.025	2.770-2.870	2.785-2.835	145 22
Tx. Gas, zone 1	IGBAO21	2.770	+0.020	2.760-2.775	2.765-2.775	208 26
Tx. Gas, zone SL	IGBBT21	—	—	—	—	—
Transco, zone 3	IGBBV21	2.875	+0.030	2.860-2.880	2.870-2.880	106 25
Transco, zone 4	IGBDJ21	2.890	+0.025	2.860-2.915	2.875-2.905	298 54
Trunkline, ELA	IGBBX21	2.830	+0.010	2.830-2.830	2.830-2.830	3 3
Trunkline, WLA	IGBBW21	—	—	—	—	—
Trunkline, zone 1A	IGBGF21	2.705	+0.050	2.700-2.750	2.700-2.720	132 27
Louisian/Southeast regional average	IGHAA00	2.835				
Rockies/Northwest						
Cheyenne Hub	IGBCO21	2.450	-0.010	2.430-2.470	2.440-2.460	730 95
CIG, Rockies	IGBCK21	2.370	-0.005	2.335-2.440	2.345-2.395	99 16
GTN, Kingsgate	IGBCY21	2.050	+0.105	2.050-2.050	2.050-2.050	59 10
Kern River, Opal	IGBCL21	2.400	-0.070	2.350-2.470	2.370-2.430	826 128
NW, Can. bdr. (Sumas)	IGBCT21	2.010	+0.005	1.900-2.050	1.975-2.050	245 51
NW, s. of Green River	IGBCQ21	2.340	+0.005	2.330-2.350	2.335-2.345	66 12
NW, Wyo. Pool	IGBCP21	2.385	-0.055	2.310-2.470	2.345-2.425	665 103
PG&E, Malin	IGBDQ21	2.430	-0.035	2.350-2.490	2.395-2.465	516 78
Questar, Rockies	IGBCN21	2.340	-0.130	2.340-2.340	2.340-2.340	0.4 2
Stanfield, Ore.	IGBCM21	2.355	+0.175	2.230-2.410	2.310-2.400	193 39
TCPL Alberta, AECO-C*	IGBCU21	1.395	+0.360	1.280-1.465	1.350-1.440	1122 201
Westcoast, station 2*	IGBCZ21	1.520	+0.320	1.450-1.550	1.495-1.545	214 36
White River Hub	IGBGL21	2.400	-0.030	2.390-2.400	2.400-2.400	20 6
Rockies/Northwest regional average	IGTAA00	2.320				
Southwest						
El Paso, Bondad	IGBCG21	2.315	-0.050	2.300-2.355	2.300-2.330	138 22
El Paso, Permian	IGBAB21	1.965	-0.135	1.800-2.250	1.855-2.080	1181 178
El Paso, San Juan	IGBCH21	2.340	-0.040	2.290-2.390	2.315-2.365	260 41
El Paso, South Mainline	IGBFR21	2.610	-0.045	2.580-2.680	2.585-2.635	138 18
Kern River, delivered	IGBES21	2.700	-0.095	2.680-2.820	2.680-2.735	364 69
PG&E city-gate	IGBEB21	3.005	-0.015	2.995-3.040	2.995-3.015	636 98
PG&E, South	IGBDM21	2.455	-0.080	2.440-2.460	2.450-2.460	82 20
SoCal Gas	IGBDL21	2.580	-0.140	2.400-2.680	2.510-2.650	620 113
SoCal Gas, city-gate	IGBGG21	3.360	-0.010	3.300-3.470	3.320-3.405	374 77
Transwestern, Permian	IGBAE21	1.955	-0.145	1.950-1.960	1.955-1.960	28 4
Transwestern, San Juan	IGBGK21	2.375	-0.005	2.310-2.430	2.345-2.405	125 21
Waha	IGBAD21	1.925	-0.145	1.800-2.000	1.875-1.975	952 126
Southwest regional average	IGJAA00	2.465				

*Price in C\$ per gJ; C\$1=US\$0.7699; Volume in 000 MMBtu/day. Symbols represent gas flow date.

PLATTS' SURVEY VS. EIA ESTIMATES

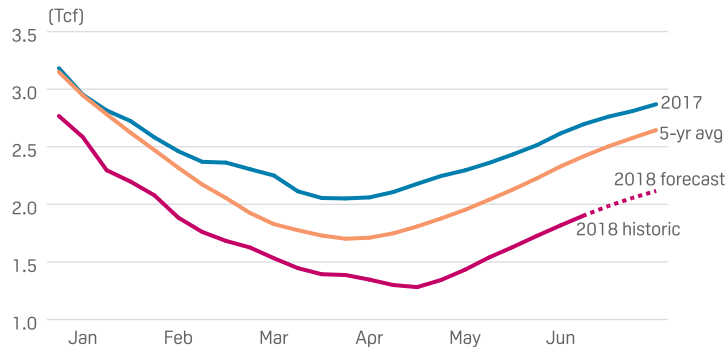


Source: Platts, US EIA

Storage fields added 536 Bcf this season

This would only be the seventh injection of the year compared to the 10 net injections normally seen by this time. Over the past five years storage has added an average amount of 719 Bcf by now. This year, stocks have risen by 536 Bcf since the end of the heating season. In 2014, when in the injection season started at a low of 824 Bcf, storage fields had added 783 by early June.

US STORAGE HISTORY AND SHORT-TERM FORECAST



Source: S&P Global Platts, US EIA

An injection within analysts' expectations of 88 Bcf would increase stocks to 1.905 Tcf. The deficit versus the five-year average would expand to 515 Bcf and the deficit versus last year in the corresponding week would shrink to 793 Bcf.

The EIA reported a 92 Bcf injection for the week ended June 1. It increased inventories to 1.817 Tcf, which was 30.5% less than the year-ago inventory of 2.616 Tcf, and 22% less than the five-year average of 2.329 Tcf.

Net injections dip in three of five storage regions

Week-over-week injections are projected to be lower in three of the five EIA storage regions.

The South Central region is expected to inject more than any other region, according to S&P Global Platts Analytics. Strong gas-fired power generation in the South was not enough to offset some production growth and, more significantly, over 8 Bcf of additional gas flowing into the region to bolster the weekly injection.

Cooler temperatures in the Midwest last week should lead to a slightly higher injection while a dip in Rockies production is expected to lead to a smaller build in the Mountain region. Injections in the Pacific

and East regions should be similar to the week prior.

Production has also not been as strong in several producing regions as previously expected. For example, Northeast production is averaging 300 MMcf/d less than expected so far this month as Rover Pipeline is still awaiting approval from the US Federal Energy Regulatory Commission on its Majorsville and Burgettstown laterals.

Offshore production is also down about 130 MMcf/d as the Enchilada Platform has yet to show signs of returning online. Rockies production shows the largest decline of 400 MMcf/d, which is likely due to maintenances at several processing plants located in the Denver-Julesburg Basin and the Green River Overthrust.

An early forecast for the week ending June 15 is calling for a build of 80 Bcf, according to S&P Global Platts Analytics, which is once again slightly less than the five-year average. Injections are expected to continue shrinking slightly in the weeks ahead. The injections throughout June typically dwindle as summer weather boosts gas-fired power generation demand.

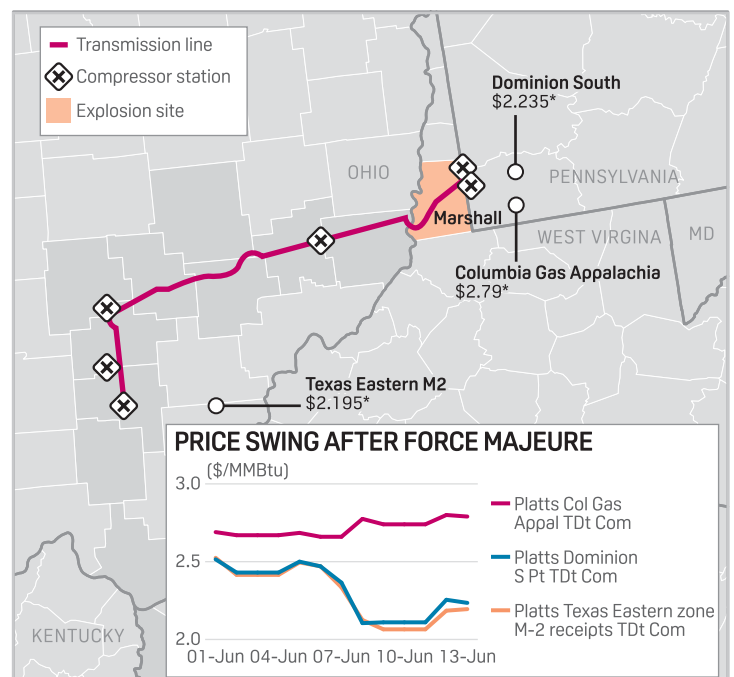
— [Brandon Evans](#)

Continued Leach XPress force majeure moves prices, reroutes output

Columbia Gas Transmission late Tuesday said that restoration work on its Leach XPress pipeline was underway, with no estimated return-to-service date following an explosion and subsequent *force majeure* announced last week.

Following the June 7 incident, hub prices in Appalachia have come under varying pressures as production, which has been rerouted to a dense network of alternative regional pipelines, has continued unabated.

LEACH XPRESS FORCE MAJEURE MOVES MARKET



*Platts assessment for gas day June 13.
Source: TransCanada, S&P Global Platts

On Wednesday, S&P Global Platts estimated a preliminary price settlement at Columbia Gas Appalachia of around \$2.82/MMBtu. During the first six days of June and prior to the explosion, prices there had averaged \$2.67/MMBtu, but have since remained elevated.

At the nearby Dominion South and Texas Eastern M2 hubs though, prices have declined about 30 cents/MMBtu on average since last Thursday, as excess, rerouted production continues to overwhelm the two upstream receipt locations.

The *force majeure* on Columbia's LXP Line has shown no clear impact on regional production. A sample of upstream receipts gathered from South/Southwest Pennsylvania, West Virginia and Ohio shows output roughly flat at 17.2 Bcf/d since last Thursday, according to S&P Global Platts data.

Modeled regional production across Appalachia, which captures output from the entire Marcellus and Utica shales, is actually higher over the past week, averaging 27.3 Bcf/d, compared with output at 27.2 Bcf/d during the first six days of June.

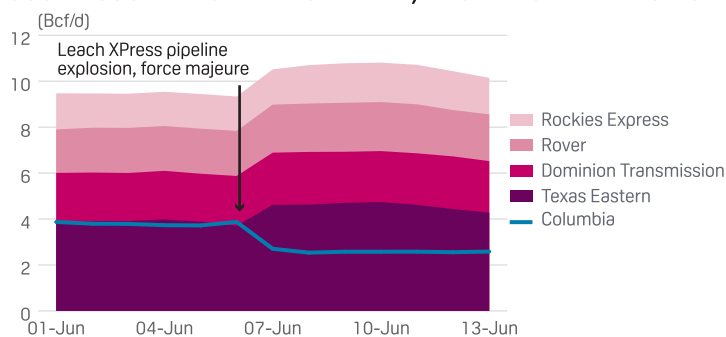
Restoration continues, Stagecoach could soon return

In a critical notice issued Tuesday, Columbia said that it was working to restore service on the LXP Line, downstream of the impacted segment, potentially enabling limited service restoration at the Stagecoach meter.

With no return-to-service date yet announced for Leach XPress, forwards markets appear to be pricing in an extended outage on the pipeline.

At Dominion South, forward prices for July delivery are down an average 14 cents/MMBtu, compared with prevailing levels in the week prior to the *force majeure*. A similar forward price depreciation has also occurred at the Texas Eastern M2 hub, Platts M2MS data show.

PRODUCTION RECEIPTS: SOUTH/SOUTHWEST PENNSYLVANIA, WEST VIRGINIA AND OHIO



Source: S&P Global Platts Analytics

Production rerouting to alternative pipelines

On Wednesday, upstream flows at the LXP Line's Eureka, Gibraltar, Majorsville and Stagecoach receipt points remained at zero.

As a result of the *force majeure*, flows on Columbia's mainline have averaged roughly 2.6 Bcf/d since last Thursday and are down approximately 1.2 Bcf/d since the incident.

Gas production has largely been rerouted, however. Upstream receipts on Texas Eastern Transmission, Dominion Transmission, Rover Pipeline and Rockies Express Pipeline are up by a combined average of roughly 1.1 Bcf/d since Thursday, Platts Analytics data show.

— J. Robinson

Frustrated by policy, LaFleur highlights GHG estimates in pipeline order

FERC Commissioner Cheryl LaFleur Wednesday laid out a new approach she hopes to take in light of the commission's recent decision to narrow its consideration of climate change impacts in reviewing natural gas pipeline applications.

LaFleur held off on dissenting in an order on a Tennessee Gas Pipeline expansion and instead chose to disclose greenhouse gas emissions in her own concurring statement, in line with the type of data previously provided by the commission before its policy shift. She took that information into account in making her own determination of whether the project is in the public interest.

In an interview with S&P Global Platts, LaFleur said she hoped to include such GHG emissions disclosures where possible in future orders.

"I would prefer not to have to just automatically dissent on every pipeline because I don't agree with that one issue, albeit a very significant one," she said. "I'm going to try, where I have an opportunity to support a specific project in the future, to do so." She said she tried to bear in mind projects that are badly needed to serve customers.

Her approach marks the latest twist as a commission divided over climate considerations settles into narrower approach to weighing greenhouse gas emissions.

After progressively adding to its GHG estimates since late 2016, the majority in a May 18 rehearing order on Dominion Transmission's New

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Market Project (CP14-497) said it would no longer disclose and consider downstream GHG impacts except in limited circumstances and would also limit the addition of language on upstream emissions. The decision, which drew dissents from LaFleur and Commissioner Richard Glick, said the commission for a short time veered from statutory mandates toward providing generic and speculative estimates associated with production and downstream combustion of natural gas, even where the causal link to a project was not established.

Commission denies rehearing on Tennessee expansion

The matter was once again a subject of debate in FERC's June 12 order denying rehearing on Tennessee's Broad Run Expansion Project, which features new compressor stations in West Virginia, Tennessee and Kentucky to add 200,000 Dt/d of incremental firm service to the Tennessee system.

Glick, in a partial dissent, asserted that FERC again concluded that it need not consider the impact of pipeline expansions have on climate change. "Because I do not believe the commission can find that the Broad Run Expansion Project is in the public interest without first determining the significance of this impact, I dissent in part from today's order," he said. He casts the majority as having adopted "an untenably narrow definition of indirect effects" that "refuses to recognize" the role pipelines play in facilitating gas consumption and production.

LaFleur on the other hand, in her concurring statement, said she recognized the project may be needed to serve customers and is in the public interest. "As a result, I am hesitant to allow the majority's troubling statements to dictate that I dissent in each chase, especially where, as here, I believe the record supports approval of a certificate," she said.

Instead, she said that she considered downstream GHG emissions that were not quantified by the majority as part of her public interest determination. Using Environmental Protection Agency methods, she provided an upper bound estimate of downstream emissions at 3.7 million mt/year of CO₂ equivalent. That would result in at most a 5.7% increase in GHG emissions from fossil fuel combustion in Mississippi,

and less than 0.1% nationally, she said. LaFleur also advocated disclosing the best available information about upstream emissions, such as the Department of Energy studies cited in past FERC orders.

Just asking would be 'exercise in futility': FERC

The majority, on the other hand, reaffirmed its view that the effects related to production or consumption of natural gas "are not indirect effects of the ... project and the commission is not required to consider those effects" under the National Environmental Policy Act or Natural Gas Act.

Elaborating on its reasoning, the majority pushed back on assertions that it lacked specific information about specific upstream production or downstream uses simply because FERC did not ask for it.

"While the shippers might contract with a specific producer for their gas supply, the shipper would not know the source of the producer's gas and, for that matter, producers are not required to dedicate supplies to a particular shipper and thus likely will not know in advance the exact source of production," they said.

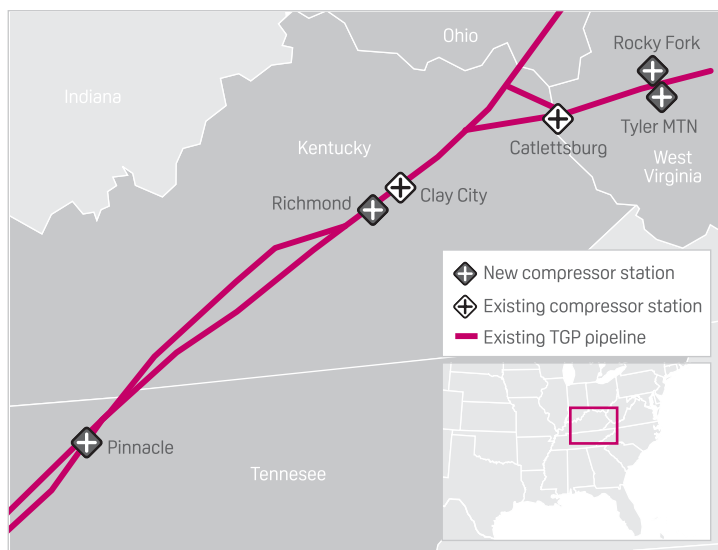
"In short, just asking for it would be an exercise in futility," they said. In a case like this one, where the project adds compression to an existing mainline, they continued, "there is not even a general supply area for the gas that will be transported on the project."

They drew a strong distinction between the Broad Run project and the case involving the Southeast Market Pipelines in which the DC Circuit Court of Appeals found FERC's review lacking in information about downstream GHG emissions. The record in the Southeast Market Pipelines showed gas would be delivered to specific power plants in Florida and thus the consumption was reasonably foreseeable, they said.

"In contrast, here, the gas ... will be delivered by the project's sole shipper, a producer, into the interstate natural [gas] pipeline grid and not to a specific end user," they said.

— *Maya Weber*

BROAD RUN EXPANSION PROJECT



Source: Tennessee Gas Pipeline

Exports give US gas buyers something extra to consider when procuring supplies

Several major US natural gas buyers said Wednesday they face challenges procuring supplies to meet demand in downstream markets such as the Mid-Atlantic and Southeast due to competition for the resources from shippers to Mexico and LNG export players. Insufficient Northeast pipeline infrastructure was cited as another problem.

The comments during the final day of the LDC Gas Forums Northeast conference in Boston highlight the changing dynamics of gas flows and new global markets that are being opened up by technology that is making drilling more efficient.

As a result, gas buyers said they are more acutely aware of the need to lock in long-term firm transportation, tap storage when available, and adjust their hedging strategies to deal with price volatility that is often driven by system bottlenecks.

"The Southeast is now a net importer. We have transitioned from a supply zone to a market zone," Jeff Avery, director of natural gas at the Tennessee Valley Authority, told attendees at the conference. "With

that change, we want to take some of the risk off the table.”

TVA, which provides electricity for business customers and local power companies serving nine million people in parts of seven Southeast states, has been diversifying its portfolio in recent years to give it more options for fuel. But natural gas is an important piece, especially as a bridge fuel for increasing use of renewables.

With the Appalachian Basin being a key supply zone, producers have been eager to move more supplies to the Southeast, and they have been encouraging midstream operators to add more takeaway capacity.

“With the influence of LNG export growth as well as the Mexico demand, being in the area where TVA is, they are now a very sizable competitor of ours for gas molecules,” Avery said.

In its annual statistical review of world energy, BP said Wednesday that LNG exports, in particular, are altering gas markets because they have greater mobility due to destination flexibility in response to price signals.

While there have been a number of new pipelines that have come online in the Northeast, with others under construction, gas buyers said much more is needed. That means pushing state and federal regulators to speed up the permitting process, they said.

“The main focus is to have available, low-cost supplies,” John Tammaro, manager of gas supply administration for National Fuel Gas Distribution, said at the conference. “We’re fortunate to be in an area that I call the new Gulf of Mexico — that’s the Marcellus and Utica shale.”

At the same time, Tammaro said his company is concerned with how natural gas is viewed by decision-makers, including the Federal Energy Regulatory Commission. “The FERC and the states combined are two hurdles we always have to address,” he said.

Pricing also is in the mix for gas buyers looking for sufficient supplies over the long term, according to Avery.

“I do love low pricing, but I also want a healthy producer base,” Avery said. “I do think a stable pricing environment is very important in the industry, instead of these ups and downs and wild swings.”

— *Harry Weber*

Global LNG trade jumped 10.3% to 393 Bcm in 2017: BP

Global LNG trade grew 10.3% in 2017 to 393.4 Bcm of gas equivalent, the fastest growth since 2010, BP said in its latest annual statistical review published Wednesday.

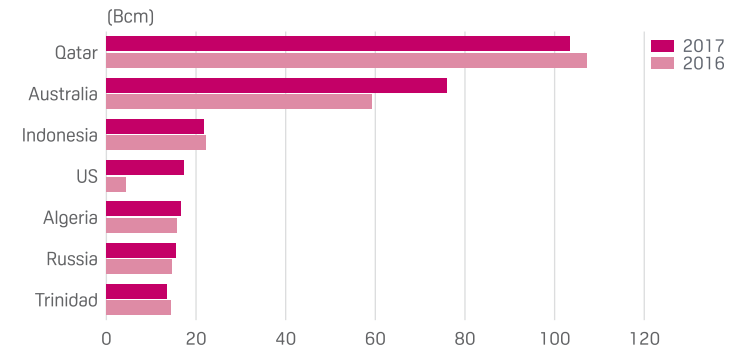
Strong production growth — aided by startup of new LNG trains in Australia and the US — was met by equally strong demand growth from China, which accounted for almost half of the global expansion.

Chinese LNG imports totaled 52.6 Bcm of gas equivalent last year, up 47% on the 35.9 Bcm it bought in 2016.

Qatar remained the main global LNG supplier, with exports totaling 103.4 Bcm of gas equivalent, while the US saw its exports soar to 17.4 Bcm last year from just 4.3 Bcm in 2016 — which was the first year of LNG supplies from the lower 48.

Australia also saw its exports rise strongly by 28% to 75.9 Bcm last year, making it the world’s second biggest LNG supplier by some distance.

SELECTED LNG EXPORTS BY COUNTRY



Source: BP Statistical Review of World Energy

BP chief economist Spencer Dale said that while market observers had predicted an LNG supply “glut” given the wave of new supply projects that came online in the past few years, the result instead has been periods of unsustainably low prices rather than a build-up of idle capacity.

“So there has in fact been an LNG glut of sorts in recent years, but this has resulted in periods of unsustainably low prices rather than idle LNG capacity,” Dale said.

The apparent absence of a major supply glut, he said, also reflects the fact that actual LNG deliveries have come on stream less quickly than originally planned due to a variety of technical issues.

Dale said the global gas market was becoming increasingly integrated through the greater mobility of LNG exports.

He said the ability of LNG to alter its destination in response to price signals — in a way that pipeline exports cannot — was likely to lead gas markets around the world becoming increasingly integrated, with regional gas prices increasingly moving in unison.

“This increasing integration is also apparent in a convergence of the volatility of gas prices in different markets,” Dale said.

“As markets open up, shocks in one region are increasingly shared across the world, leading to more similar patterns of variability across markets.”

— *Stuart Elliott*

BP questions pace of US tight oil growth as productivity fades

Productivity levels in the US’ prime tight oil play began to fall last year, raising further questions over the sustainability of the current US tight oil recovery as constraints on the shale sector mount, BP’s chief economist Spencer Dale said Wednesday.

With US tight oil and natural gas liquids production surging nearly 2 million b/d since late 2016, shale drillers have been forced to spread out from the most productive areas, or sweet spots, in their acreage, Dale said, presenting BP’s latest annual Statistical Review.

Tight oil well productivity has now flattened out in the Permian Basin based on initial output per completed well, he said. But tight oil productivity from the basin fell last year when measured by output per

lateral foot of each completed well, Dale said.

"It does perhaps suggest that the very rapid increases in tight oil productivity that characterized much of the initial phase of the shale revolution may be beginning to fade," Dale said.

"More recently, increasing bottlenecks within the supply chain, together with signs that investors are becoming less willing to finance continued high levels of investment, suggest there may be some limits to the speed with which tight oil can grow going forward," he said.

But Dale declined to draw conclusions on implications for the growth outlook of US tight oil, noting that falling productivity does not suggest earnings in the shale oil sector will also take a hit.

"The idea that productively is starting to flatten off ... as you move away from the sweet spots is not surprising, [but] this measure of productivity doesn't tell you anything about profitability," he said.

BP predicted in February that US tight oil will grow by about 5 million b/d to 2040, peaking at close to 10 million b/d in the early 2030s. But the forecast is consistent with the number of rigs remaining around current levels and productivity levels improving by about 40% over the next 10 years.

US shale oil production is widely expected to continue rebounding this year, after growing by 1 million b/d in 2017, as OPEC-led output cuts to support global oil prices saw prices hit \$80/b last month.

Pipeline bottlenecks

But some market watchers have suggested a potential shortage of rig crews in the US, as well bottlenecks in supplies of raw materials needed to frack shale plays, mean there is a risk of oil prices rebounding higher if the US falls short of supply expectations from shale.

As production in the Permian has soared, regional pipeline capacity has plummeted while a shortage of rail and trucking options have raised the costs of evacuating tight oil, leading to steep discounts at the region's pricing hub. Permian oil pipeline capacity, which should grow by 2.23 million b/d starting in second-half 2019, remain a concern for producers. Many believe that the growth is not fast enough to keep pace with continued Permian crude production growth as operators add drilling rigs and tinker with completion designs that improve per-well oil yields.

Speaking on the sidelines of a presentation of the Statistical Review, however, BP CEO Bob Dudley said he was confident that current pipeline bottlenecks in the Permian shale region would be resolved swiftly.

"The infrastructure bottlenecks in Midland,[Texas] and Houston those will get solved, so think we just have to wait and see. The US responds very quickly to market signals, so I think that will be the solution," Dudley said.

The Midland WTI discount to Cushing WTI averaged \$10.26/b in May, widening from a \$5.96/b discount in April, S&P Global Platts data shows. The Midland discount to Houston averaged \$14.28/b, nearly doubling the \$7.79/b average discount in April. In May 2017, the discount was just \$2.28/b.

— [Robert Perkins](#)

Court decision frees gas producer to pursue multi-million dollar case against Dallas

Thanks to the Texas Supreme Court, an exploration-and-production company is free to pursue its multi-million dollar lawsuit against the city of Dallas. It claims the city improperly denied the producer permission to drill on city-owned land and private land within the city limits.

A final decision in the case could establish a legal precedent that would limit the ability of cities within Texas to regulate leasing and drilling within their jurisdictions.

The court on June 8 denied without comment the city's petition for review of an appeals court decision in the case involving Trinity East Energy. Attorneys for the city had argued that Dallas had governmental immunity from lawsuits, and that the court of appeals erred in holding that the city was engaged in a proprietary function when it leased the minerals beneath city park land in the flood plain to Trinity.

Filed in early 2014, the original suit alleged that the city defrauded the company by not allowing it to drill on three gas leases it held within the city limits. The filing followed a vote by the Dallas City Council the previous August, which denied the producer special-use permits to drill on two city-owned tracts and one privately held tract in the far west corner of Dallas.

"Basically we're arguing that because the city refused to allow us to drill that they breached the lease," Trinity East attorney Arthur Anderson said in an interview Wednesday. Trinity East, which paid more than \$19 million in 2008 to lease the tracts, claims the council action amounted to a breach of contract and fraud.

In addition to the \$19 million in bonus money paid to the city for the leases, the producer is seeking payment of about \$10 million it spent attempting to secure drilling permits for the leased properties as well as compensation for the value of the gas it was unable to produce, which could potentially amount to hundreds of millions of dollars.

By rejecting the city's claim that its actions were governmental, rather than proprietary, the courts have paved the way for the producer to claim millions more in damages than would otherwise be the case, Anderson said. "The city denied the SUP application, which prevented drilling, which prevented the exploitation of the minerals," he said. "Basically if you can't drill, you can't enjoy the mineral interest."

At the time Trinity East secured the leases, it was trying to extend the easternmost edge of the Barnett Shale of North Texas, the first and at the time hottest shale gas play in the US.

Representatives of the Dallas City Attorney's office declined to comment on the court decision.

— [Jim Magill](#)

Energy Transfer's Rover agrees to pay \$430,000 over West Virginia water violations

Rover Pipeline agreed to pay a \$430,000 penalty for water pollution violations resulting from construction activities for its 3.25 Bcf/d natural gas pipeline project.

The civil administrative penalty would be deposited in the state's water quality management fund, according to a West Virginia Department of Environmental Protection, or DEP, consent order filed

May 15 but made public June 12.

The Energy Transfer Partners subsidiary also waived its right to appeal the order, the filing said. Rover is required to pay the penalty within 30 days of the order's effective date.

The department's personnel met with Rover representatives to discuss the terms and conditions of the order in March and April. The DEP identified several instances of Rover violating its water pollution control permit during "land disturbance activity" for the project since April 2017. The violations include creating sediment deposits on the

bottom of streams, improper implementation of perimeter controls, failing to maintain erosion control devices and allowing sediment-laden water to leave the construction site.

Rover previously received two cease-and-desist orders from the DEP, the most recent of which was lifted in May. The pipeline developer is seeking approval to start up two laterals, but the decision from the US Federal Energy Regulatory Commission hinges on Rover's completion of environmental restoration work.

— *Sibyl Layag, S&P Global Market Intelligence*

PIPELINE MAINTENANCE

Start date	End date	Pipeline	Description
15-Jun	16-Jun	ANR	ANR capacity restriction at Eunice Total could constrain flows to the Gulf
19-Jun	20-Jun	Algonquin	Algonquin conducting one-day reduction at Stony Point Compressor
29-Jul	16-Sep	SOCAL	Topock maintenance extended through summer
04-Jun	29-Jul	Tennessee	Tennessee cutting receipts at Station 114 by 471 MMcf/d

SUBSCRIBER NOTES

Platts to discontinue daily and monthly natural gas locations

Based on a review of historical liquidity and market feedback, S&P Global Platts will discontinue North American natural gas daily and monthly indices for the following Platts locations:

Location:

REX, Clarington, Ohio IGBG000 (Daily Trade Date) IGBG003 (Monthly Symbol)
Tennessee, zone 4-Ohio IGBH000 (Daily Trade Date) IGBH003 (Monthly Symbol)

The daily prices will be discontinued as of flow date October 1, 2018, and the monthly prices will be discontinued beginning with November 2018 bidweek. Affected publications are Gas Daily, Inside FERC Gas Market Report, Natural Gas Alert pages 1310, 1318, 1350, 1351, 1352, 1353, 1354, 1355, 1357, and Market Data categories GI, GD, GJ, and GM.

Associated daily and monthly symbols will also be discontinued.

Please send any comments to the above to gas_survey_comments@platts.com and pricegroup@spglobal.com. For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

Platts extends feedback for transitioning ICE natural gas locations to Platts locations

S&P Global Platts is extending its feedback period on an original proposal dated March 2 to transition the following daily natural gas ICE locations to Platts locations:

1. The ICE location ICE Iroquois, zone 1 (delivered excl. Waddington) with trade date symbol JAABS00.
2. The ICE location ICE Tennessee, zone 5, 200 Line, dlvd downstream of station 245 with trade date symbol of JAAEV00.

The methodology for these locations would change. Currently only trades executed on ICE are used in final daily indices, the trades are not screened for outliers, and there are no assessments in absence of trading on ICE and no index would be published. As Platts locations, price reporter trades and ICE non-price reporter legs of trades would be included in final daily indices, the trades would be screened for outliers, and there may be assessments in the absence of reported trading activity. In addition, Platts would clearly define the

locations in the North American natural gas methodology guide.

Platts has extended the original consultation period and is now seeking feedback on the proposal above until August 31, 2018, to gas_survey_comments@platts.com and pricegroup@spglobal.com.

For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

Platts proposes to expand use of spreads in natural gas indices

Platts is reviewing the use of spread trades in its North American natural gas daily and monthly indices, and invites feedback on proposals to expand the use of these trades beyond the limited cases, reflected currently.

1. Platts includes NGX transport trades at Platts locations TCPL Alberta, AECO and Dawn, Ontario and excludes spread trades at all other locations. These spread trades, often called "NGX transport trades," are screened for outliers on an outright price basis and may be excluded from the final daily and monthly indices. For consistency, Platts proposes to extend this practice and include location and time spread trades at all locations in its preliminary and final daily and monthly indices. In final daily and monthly indices these spread trades, like all other reported trades, would be screened for outliers and potentially excluded from index calculations.

2. Additionally, Platts seeks feedback on a further proposal to include physical basis trades, where the price is expressed as a premium or discount to another location, in all preliminary and final daily and monthly indices. Currently physical basis trades are only used in preliminary and final monthly indices at locations east of the Rocky Mountains. Basis trades, like all other reported trades, would be screened for outliers and potentially excluded from index calculations.

Platts will accept comments on the above proposals through June 29, 2018. Platts invites comments on the merits of these approaches, and potential timelines for making this change to methodology. Please send any comments regarding to gas_survey_comments@platts.com and pricegroup@spglobal.com. For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

NATURAL GAS FUTURES

NYMEX July gas futures settle at \$2.963/MMBtu

The NYMEX July natural gas futures contract rose 2.4 cents Wednesday on expectations of a smaller-than-normal injection to gas storage stocks in a report that the US Energy Information Administration will release Thursday.

The front-month contract settled at \$2.963/MMBtu after trading in the range of \$2.916-\$2.979/MMBtu so far Wednesday.

"The market is trying to wrap its arms around the storage report which is due tomorrow," said Tom Saal, senior vice president, INTL FC Stone.

The storage build is expected to be smaller than usual, he said.

A survey of analysts conducted by S&P Global Platts Analytics expects an injection of 88 Bcf for the week that ended June 8, compared with a 92 Bcf build announced by EIA for the week that ended June 1 and the five-year average of 91 Bcf.

Nationwide gas stocks totaled 1.817 Tcf after last week's injection, 30.5% below the 2.616 Tcf year-ago mark and a deficit of 22% to the five-year average of 2.329 Tcf.

The "short-term weather outlook shows that temperatures are going to be on the warm side so it is positive for prices," Saal said.

The six- to 10-day outlook from the National Weather Service shows warmer-than-average temperatures for much of the US, which could lift gas-fired power burn.

Below-average temperatures are expected in the Rockies and the Southeast, which is likely to drive down demand in those regions in the coming days.

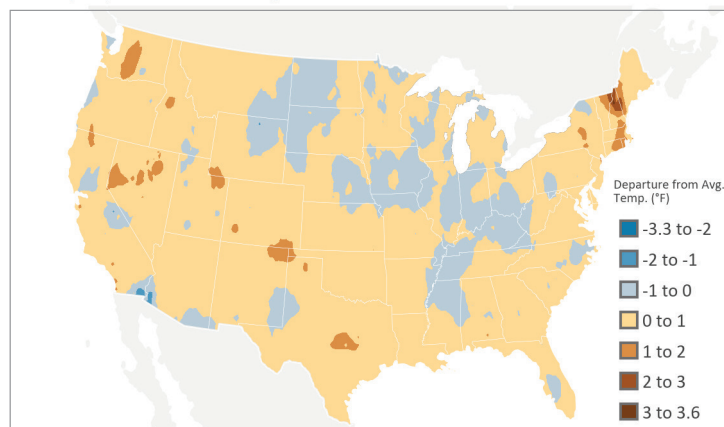
Total US production will stay below 78 Bcf Wednesday, according to Platts Analytics. Output will fall 400 MMcf compared with Tuesday to 76.8 Bcf, primarily due to regressions in the Northeast and Texas. Wednesday's production is set to be 800 MMcf below the two-week average, the data show.

However, production is estimated to increase to 77.5 Bcf/d over the next seven days, according to Platts Analytics.

Production so far in 2018 is averaging 77.3 Bcf/d, up 8% from 71.6 Bcf/d a year ago, the data show.

MONTH-AHEAD TEMPERATURE FORECAST MAP

July departure from average



Source: S&P Global Platts, Custom Weather

NYMEX HENRY HUB GAS FUTURES CONTRACT, JUN 13

	Settlement	High	Low	+/-	Volume
Jul 2018	2.963	2.979	2.916	0.024	58643
Aug 2018	2.948	2.965	2.909	0.019	17697
Sep 2018	2.920	2.941	2.887	0.018	5095
Oct 2018	2.936	2.955	2.902	0.019	2670
Nov 2018	2.982	2.999	2.949	0.018	873
Dec 2018	3.090	3.104	3.059	0.018	1235
Jan 2019	3.176	3.188	3.142	0.018	1258
Feb 2019	3.148	3.157	3.115	0.018	349
Mar 2019	3.052	3.060	3.019	0.018	1022
Apr 2019	2.663	2.669	2.647	0.008	1922
May 2019	2.621	2.625	2.609	0.008	292
Jun 2019	2.647	2.651	2.641	0.007	45
Jul 2019	2.678	2.682	2.659	0.007	252
Aug 2019	2.685	2.689	2.667	0.006	50
Sep 2019	2.671	2.676	2.664	0.005	135
Oct 2019	2.691	2.696	2.684	0.005	114
Nov 2019	2.744	2.749	2.740	0.004	124
Dec 2019	2.873	2.878	2.870	0.003	40
Jan 2020	2.970	2.974	2.966	0.002	272
Feb 2020	2.933	2.937	2.930	0.002	57
Mar 2020	2.838	2.844	2.834	0.002	32
Apr 2020	2.569	2.576	2.566	0.003	109
May 2020	2.542	2.542	2.540	0.002	3
Jun 2020	2.571	2.571	2.571	0.002	3
Jul 2020	2.604	2.604	2.604	0.002	0
Aug 2020	2.612	2.612	2.612	0.002	0
Sep 2020	2.599	2.599	2.599	0.002	0
Oct 2020	2.621	2.621	2.621	0.002	0
Nov 2020	2.676	2.681	2.676	0.002	1
Dec 2020	2.807	2.811	2.807	0.002	1
Jan 2021	2.907	2.912	2.907	0.002	1
Feb 2021	2.874	2.882	2.873	0.004	4
Mar 2021	2.787	2.790	2.787	0.007	1
Apr 2021	2.542	2.545	2.542	0.007	1
May 2021	2.517	2.811	2.807	0.007	0
Jun 2021	2.544	2.544	2.544	0.007	0

Contract data for Tuesday

Volume of contracts traded: 417,115

Front-months open interest:

Jul, 167,620; Aug, 158,996; Sep, 150,196

Total open interest: 1,495,048

Data is provided by a third-party vendor and is accurate as of 5:30 pm Eastern time.

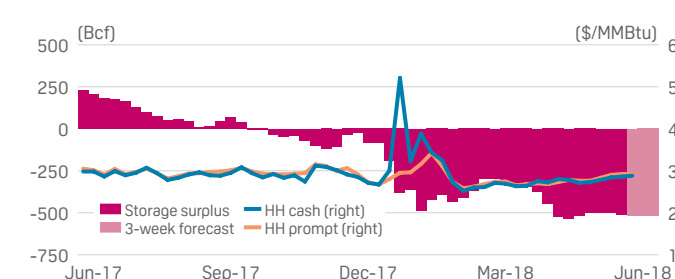
NYMEX PROMPT MONTH FUTURES CONTINUATION



Note: The entire wick of the candlestick depicts the high and low daily front-month Henry Hub futures price range. The body of the candlestick depicts the price range between the open and close, with a red candlestick indicating a close on the downside and a green candlestick indicating a close on the high end.

Source: S&P Global Platts

US GAS STORAGE SURPLUS vs ROLLING 5-YEAR AVERAGE



NORTHEAST GAS MARKETS

Northeast gas sees modest gains on demand

US Northeast natural gas spot prices saw slight gains in most areas Wednesday, with demand Thursday expected to tick upward day on day.

S&P Global Platts Analytics projects total Northeast demand to be 14 Bcf Thursday, just up from the 13.9 Bcf expected for Wednesday.

The Algonquin city-gates next-day cash price rose 5.5 cents for Thursday flows to 2.5/MMBtu, strengthening its cash basis against the Henry hub spot price to minus 44 cents/MMBtu as the Louisiana benchmark gained 2 cents on the day.

The high temperature in Boston is forecast by the National Weather Service to be 79 degrees Fahrenheit Thursday, a 5-degree climb from what is expected for Wednesday, and just above the 75 degrees historically averaged in Boston during that time.

A majority of producing areas also experienced small gains Wednesday, with TETCO M-2 rising 4 cents to \$2.235/MMBtu.

Columbia Gas, Appalachia continued its strength, climbing 2.5 cents to \$2.815/MMBtu, its highest level since February 1, as a pipeline explosion on the LXP segment in Marshall County, West Virginia, has given support to next-day and balance-of-the-month pricing.

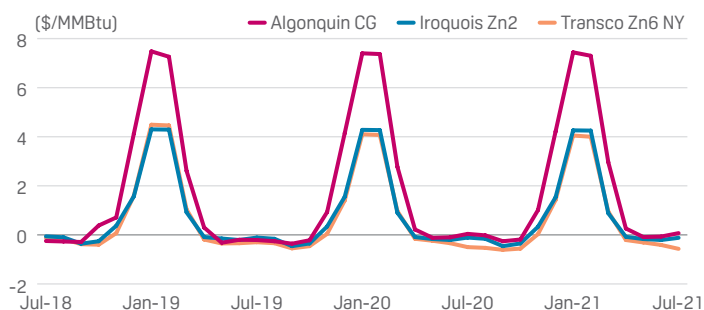
Currently TransCanada has no current return-to-service date for the LXP pipeline, and will give an update on the pipeline's status June 18.

Looking ahead, the most recent eight- to 14-day weather outlook from the weather service calls for a likelihood of warmer-than-average temperatures for the entire Northeast region, which could give support to power demand, as the market marches towards the end of June.

Platts Analytics projects total Northeast demand to average 14.2 Bcf/d over the next eight to 14 days, with power demand accounting for 7.3 Bcf/d of that total.

Northeast production has continued to pace above year-ago numbers, averaging 27.5 Bcf/d month to date, according to Platts Analytics, up 15% from the 23.9 Bcf/d averaged this time in June 2017.

NORTHEAST FORWARD BASIS



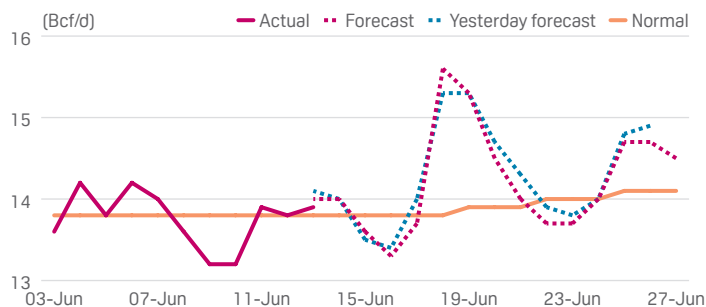
Source: S&P Global Platts

NORTHEAST SPOT AND FORWARD BASIS (\$/MMBtu)

	Spot basis			MTD			Prompt forward basis		
	13-Jun	12-Jun	Chg	MTD Avg.	MTD last year	Chg	13-Jun	12-Jun	Chg
Henry Hub	2.94	2.92	0.02	2.90	2.94	-0.04	2.96	2.94	0.02
Northeast region									
Algonquin CG	-0.44	-0.48	0.04	-0.42	-0.55	+0.13	-0.25	-0.35	0.09
Iroquois Zn2	-0.13	-0.18	0.05	-0.24	-0.50	+0.27	-0.06	-0.06	0.00
Tenn Zn6 Dlvld	-0.25	-0.29	0.04	-0.25	-0.48	+0.23	-0.08	-0.17	0.09
Transco Zn 6 NY	-0.14	-0.06	-0.08	-0.22	-0.60	+0.38	-0.13	-0.15	0.02
Transco Zn5 Dlvld	0.05	0.04	0.01	0.03	0.02	+0.01	0.03	0.00	0.03
Transco Zn6 Non-NY	-0.14	-0.11	-0.03	-0.24	-0.54	+0.30	-0.15	-0.18	0.03
TX Eastern M-3	-0.61	-0.62	0.02	-0.54	-0.86	+0.32	-0.55	-0.62	0.07
Appalachia									
Col Gas Appal	-0.13	-0.13	0.01	-0.17	-0.15	-0.01	-0.16	-0.16	0.00
Dominion N Pt	-0.66	-0.68	0.02	-0.60	-0.91	+0.31	-0.73	-0.80	0.07
Dominion S Pt	-0.65	-0.69	0.04	-0.60	-0.90	+0.31	-0.64	-0.71	0.07
Lebanon Hub	-0.25	-0.24	-0.01	-0.24	-0.94	+0.70	-0.29	-0.31	0.02
Millennium East Receipts	-0.89	-0.86	-0.03	-0.98	-0.95	-0.03	-0.88	-0.93	0.05
Tenn Zn4-200 Leg	-0.34	-0.44	0.10	-0.36	-0.80	+0.44	-0.52	-0.56	0.04
Tennessee zone 4-300 leg	-0.91	-0.93	0.02	-1.05	-1.00	-0.05	-0.95	-1.02	0.07
Texas Eastern M-2 receipts	-0.71	-0.73	0.02	-0.62	-0.95	+0.32	-0.67	-0.74	0.07
Transco Leidy Line receipts	-0.90	-0.81	-0.09	-1.03	-0.94	-0.09	-0.88	-0.93	0.05
Other locations									
Dracut MA	—	—	—	0.80	—	—	0.11	0.03	0.07
Iroquois Receipts	-0.19	-0.19	0.00	-0.22	-0.49	+0.27	-0.17	-0.17	0.00
Niagara	-0.35	-0.36	0.01	-0.35	-0.64	+0.29	-0.25	-0.27	0.02

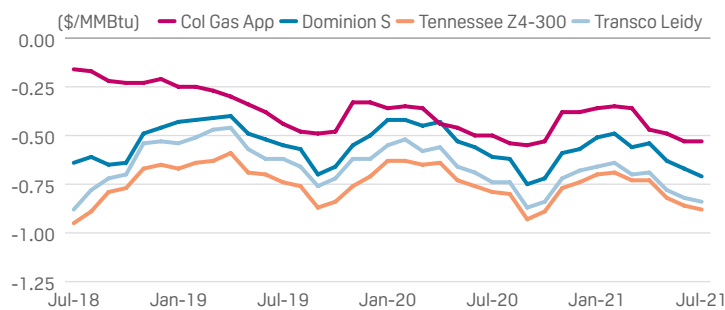
Source: Platts M2M data

NORTHEAST DEMAND FORECAST



Source: S&P Global Platts

APPALACHIA FORWARD BASIS



Source: S&P Global Platts

SOUTHEAST GAS MARKETS

Prices higher ahead of demand climb

Southeast cash prices ticked higher at most pricing locations Wednesday as demand levels are expected to eclipse the 20 Bcf/d threshold Thursday, the first such occurrence in three weeks, S&P Global Platts Analytics data showed.

Henry Hub inched 2 cents higher to \$2.94/MMBtu Wednesday, while deeper into the Southeast market, prices moved higher by similar margins.

Florida Gas Transmission Zone 3 added 1.5 cents to \$2.915/MMBtu, widening cash basis slightly to minus 3 cents/MMBtu, weaker than the current June cash basis average of nearly flat to Henry Hub.

A year ago, FGT Zone 3 averaged 4 cents back of Henry Hub through the first half of June with demand levels averaging 220 MMcf/d below current June to-date average of 4 Bcf/d, Platts Analytics data shows.

While year on year comparisons have shown pricing weakness during this time of June, the previous three years have shown FGT Zone 3 cash basis averaging 3 cents above Henry Hub, Platts pricing data showed.

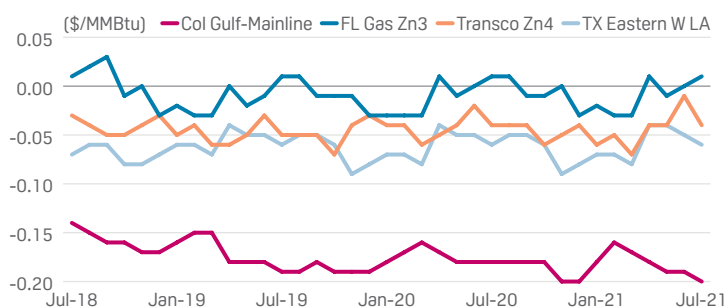
Increased flows along Sabal Trail into the Florida market have played a role in depressing FGT Zone 3 cash basis prices in recent summers, with current flows to Florida Southeast Connection in Osceola County, Florida hovering at an average of 244 MMcf/d, the highest monthly average in 2018 and nearing peak levels seen during last summer.

Looking ahead, the US National Weather Service projects above-average temperatures to envelop much of the Southeast market over the next six-to-10-days, likely providing a floor under cash prices into the back half of the month.

During this time, Platts Analytics expects demand levels to hover well above the 20 Bcf/d threshold over much of the next eight-14 days, resulting in balance of the month trading for both Henry Hub and Houston Ship Channel currently trading at a few cents above current cash trading levels.

Above-average temperatures over this region are expected to continue into the final days of June as well, according to the National Weather Service.

SOUTHEAST FORWARD BASIS



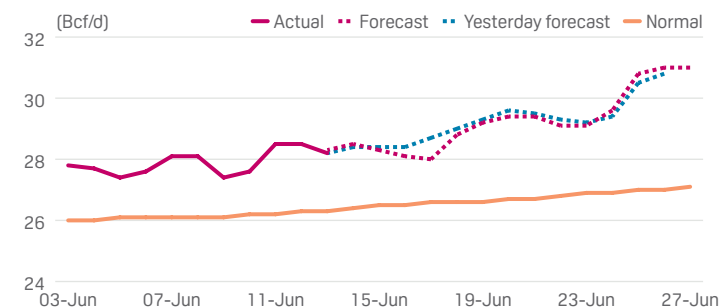
Source: S&P Global Platts

SOUTHEAST SPOT AND FORWARD BASIS (\$/MMBtu)

	Spot basis			Prompt forward basis		
	13-Jun	12-Jun	Chg	MTD Avg.	MTD last year	Chg
Henry Hub	2.94	2.92	0.02	2.90	2.94	-0.04
Southeast						
ANR LA	-0.16	-0.18	0.03	-0.17	-0.09	-0.08
Col Gulf LA	-0.07	-0.11	0.04	-0.10	-0.09	-0.01
Col Gulf-Mainline	-0.12	-0.14	0.03	-0.13	-0.09	-0.04
FL Gas Zn1	-0.08	-0.07	-0.01	-0.07	-0.08	+0.01
FL Gas Zn2	-0.07	-0.06	-0.01	-0.07	-0.06	-0.01
FL Gas Zn3	-0.03	-0.02	-0.01	-0.01	-0.03	+0.02
Florida CG	—	—	—	0.15	0.41	-0.26
SoNat LA	-0.05	-0.05	-0.01	-0.05	-0.06	+0.02
Tenn LA 500 Leg	-0.06	-0.07	0.01	-0.06	-0.08	+0.02
Tenn LA 800 Leg	-0.12	-0.13	0.02	-0.12	-0.08	-0.03
TETCO-M1	-0.09	-0.09	-0.01	-0.10	-0.11	+0.01
Texas Gas Zn SL	—	—	—	-0.17	-0.12	-0.04
Texas Gas Zn1	-0.17	-0.17	0.00	-0.16	-0.12	-0.04
Transco Zn2	-0.11	-0.05	-0.06	-0.02	-0.07	+0.05
Transco Zn3	-0.07	-0.08	0.01	-0.07	-0.06	-0.02
Transco Zn4	-0.05	-0.06	0.01	-0.04	-0.05	+0.00
Trunkline E LA	-0.11	-0.10	-0.01	-0.10	-0.11	+0.02
Trunkline W LA	—	—	—	0.00	-0.03	+0.03
Tx Eastern E LA	-0.13	-0.10	-0.03	-0.13	-0.10	-0.03
TX Eastern W LA	-0.13	-0.09	-0.05	-0.10	-0.07	-0.04
East & South Texas						
Agua Dulce	—	—	—	0.15	0.05	+0.10
Carthage Hub	-0.18	-0.15	-0.03	-0.14	-0.09	-0.05
Houston Ship Channel	0.06	0.11	-0.06	0.09	0.11	-0.02
Katy	0.06	0.08	-0.02	0.08	0.10	-0.02
NGPL S TX	—	—	—	-0.02	-0.09	+0.07
NGPL Texok Zn	-0.18	-0.17	-0.01	-0.17	-0.12	-0.05
Tenn Zn0	-0.18	-0.19	0.01	-0.16	-0.18	+0.02
Transco Zn1	-0.15	-0.17	0.02	-0.10	-0.11	+0.01
TX Eastern E Tx	-0.09	-0.19	0.10	-0.12	-0.10	-0.02
TX Eastern S TX	-0.03	0.06	-0.08	0.06	-0.01	+0.07

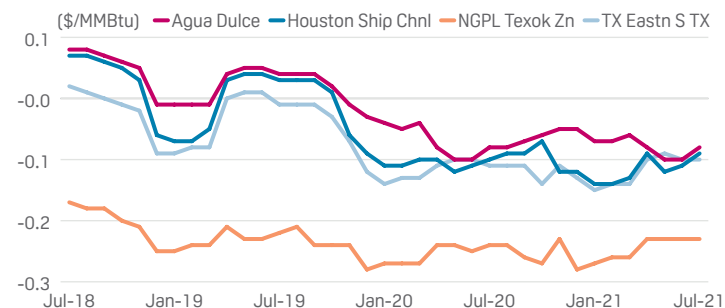
Source: Platts M2M data

SOUTHEAST & TEXAS DEMAND FORECAST



Source: S&P Global Platts

EAST AND SOUTH TEXAS FORWARD BASIS



Source: S&P Global Platts

CENTRAL GAS MARKETS

Midcontinent cash markets hold steady line

Spot Midcontinent natural gas markets were bobbing in place Wednesday as market fundamentals remained largely steady.

In the Chicago area, the Nicor hub was trading at \$2.715/MMBtu, up 2.5 cents, while the People Gas Light and Coke interconnect rose 3.5 cents to \$2.73/MMBtu.

In production areas, Panhandle was unchanged at \$2.425/MMBtu, while Southern Star rose 3.5 cents to \$2.475/MMBtu.

Midcontinent production slipped to its lowest point in a week Wednesday, according to S&P Global Platts Analytics. At 8.165 Bcf, that figure was 106 MMcf, or 1%, below Tuesday's output of 8.271 Bcf.

So far in June, production has averaged 8.32 Bcf/d. At this point a year ago, June production was averaging 7.62 Bcf/d.

While production was down slightly, inflows into the region went in the opposite direction, rising 193 MMcf to 12.099 Bcf.

That level of flows was the highest seen in three days, but was in line with the month-to-date average of 12.103 Bcf/d.

Strong flows of gas into the Midcontinent have been continuing for some time. In 2017, the daily average for gas coming into the region through this point was 11.002 Bcf/d.

In 2018, the year-to-date average is 1.888 Bcf/d higher at 12.89 Bcf/d.

Local demand in the Central region was edging downward Wednesday, hitting 11.628 Bcf, a decline of 385 MMcf compared with Tuesday. Over the last seven days, demand has averaged 11.946 Bcf/d.

Storage builds remain elevated. Wednesday's injection was seen by Platts Analytics at 4.776 Bcf, a 465 MMcf increase compared with Tuesday's 4.311 Bcf.

In a sign that the shoulder season has definitely arrived, the daily injection in the month of June has averaged 4.758 Bcf/d.

Forward prices followed a similar path to the spot market, with trades going through in a narrow range.

At Chicago city-gates, the July contract was up 0.5 cent at Henry Hub basis minus 23.5 cents and August rose 3.25 cents to Henry Hub minus 24.5 cents.

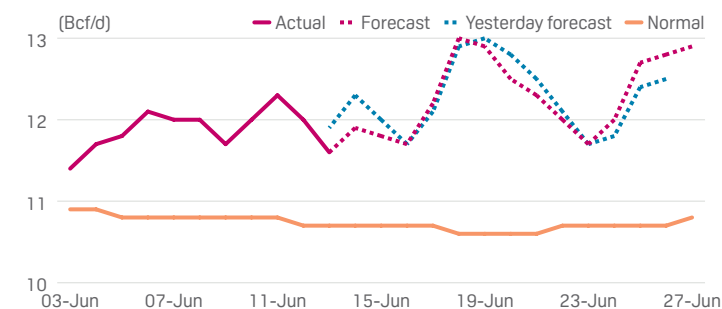
September was up 1.38 cents to Henry Hub minus 27.75 cents/MMBtu.

CENTRAL SPOT AND FORWARD BASIS (\$/MMBtu)

	Spot basis			MTD			Prompt forward basis		
	13-Jun	12-Jun	Chg	MTD Avg.	MTD last year	Chg	13-Jun	12-Jun	Chg
Henry Hub	2.94	2.92	0.02	2.90	2.94	-0.04	2.96	2.94	0.02
Midwest/East Canada									
ANR ML 7	—	—	—	-0.22	-0.13	-0.09	-0.20	-0.20	0.00
Chicago CG	-0.21	-0.21	0.00	-0.20	-0.14	-0.06	-0.24	-0.24	0.00
Consumers Energy CG	-0.18	-0.18	0.00	-0.17	-0.05	-0.12	-0.19	-0.19	0.01
Dawn Ontario	-0.18	-0.19	0.01	-0.18	-0.02	-0.16	-0.20	-0.22	0.02
Mich Con CG	-0.18	-0.18	0.00	-0.17	-0.05	-0.12	-0.21	-0.21	0.01
Northern Ventura	-0.31	-0.31	0.01	-0.32	-0.27	-0.05	-0.34	-0.35	0.01
Viking-Emerson	-0.44	-0.42	-0.03	-0.43	-0.38	-0.06	-0.46	-0.46	0.00
Midcontinent									
ANR OK	-0.49	-0.48	-0.01	-0.50	-0.33	-0.17	-0.63	-0.65	0.02
Enable Gas East	-0.19	-0.13	-0.07	-0.19	-0.17	-0.02	-0.25	-0.25	0.00
NGPL Midcontinent	-0.46	-0.48	0.03	-0.46	-0.33	-0.13	-0.59	-0.61	0.02
Northern NG Demarc	-0.35	-0.31	-0.04	-0.33	-0.27	-0.06	-0.40	-0.38	-0.01
Oneok OK	-1.03	-0.93	-0.10	-0.90	-0.41	-0.49	-1.08	-1.08	0.01
Panhandle TX-OK	-0.52	-0.50	-0.02	-0.53	-0.35	-0.19	-0.66	-0.68	0.02
Southern Star TxOKs	-0.47	-0.48	0.02	-0.48	-0.37	-0.12	-0.65	-0.66	0.02

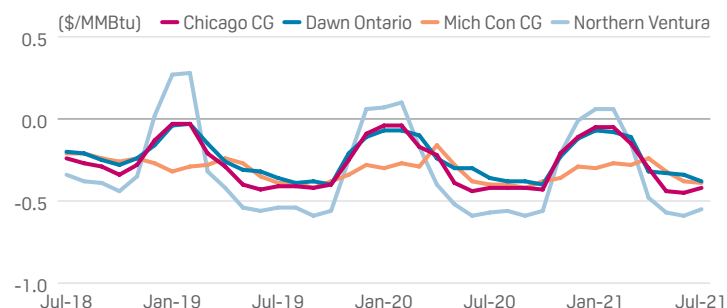
Source: Platts M2M data

MIDWEST & MIDCONTINENT DEMAND FORECAST



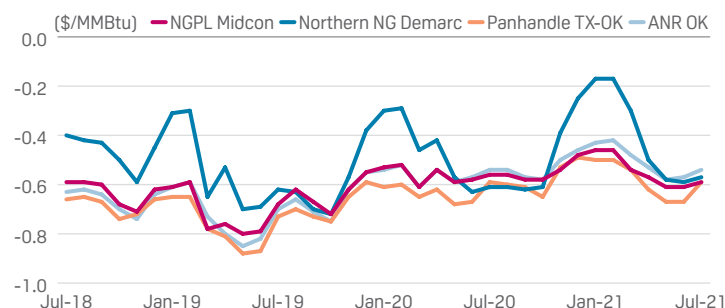
Source: S&P Global Platts

MIDWEST FORWARD BASIS



Source: S&P Global Platts

MIDCONTINENT FORWARD BASIS



Source: S&P Global Platts

WEST GAS MARKETS

West prices drop following power burn decline

With power burn looking to drop sharply over the next few days, gas prices in the West were descending Wednesday.

At Southern California Gas city-gate, trades were being heard at \$3.36/MMBtu, down 1 cent, the company's Ehrenberg, Arizona, pricing point was down 14 cents to \$2.58/MMBtu.

Similar circumstances were seen in Northern California, where Pacific Gas & Electric's Topock hub was seeing deals at \$2.455/MMBtu, after shedding 8 cents and the city-gate pricing point was moving at \$3.005/MMBtu, down 1.5 cents.

Gas needed for thermal power generation in the West stood at 4.037 Bcf/d Tuesday, according to S&P Global Platts Analytics, but Wednesday's consumption was looking to check in at 3.882 Bcf/d after dropping 166 MMcf/d.

From there, thermal power generation was expected to decline through the weekend, with demand forecast that day at 2.998 Bcf/d.

Platts Analytics saw the average need for gas for thermal power generation at 3.457 Bcf/d over that period, but both Saturday and Sunday were expected to hover around the 3 Bcf/d mark.

Weather conditions in Los Angeles support a drop in the power burn, as temperatures are forecast to peak in the 60s and 70s Fahrenheit though the weekend, which would cut down the need for air conditioning.

At the same time, skies are expected to be sunny with breezes in the 5- to 10-mph range.

If those conditions hold, the share of the electricity generation that comes from wind and solar generation will likely be hefty.

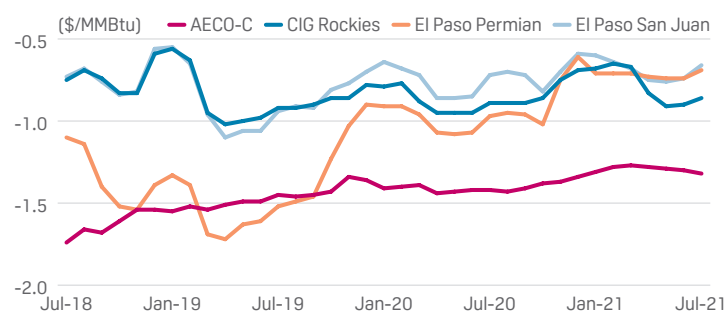
In the first two days of the workweek, California Independent System Operator data showed wind accounting for an average of just 5.9 MWh/d Monday and Tuesday, while solar averaged 15.2 MWh/d.

Interest in the futures market was tepid at midweek, with the SoCal Gas front-month contract down 1.25 cent at Henry Hub basis minus 30.25 cents/MMBtu.

August was down slightly, dropping 0.25 cent to Henry Hub minus 14 cents/MMBtu.

Over the long term, the July-October strip was moving at Henry Hub minus 34.5 cents, after a decline of 1.44 cents.

WEST SUPPLY LOCATIONS FORWARD BASIS



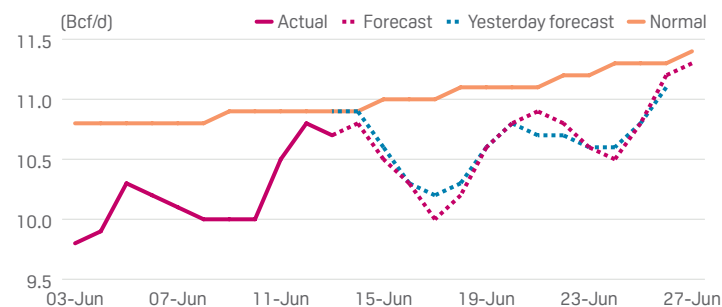
Source: S&P Global Platts

WEST SPOT AND FORWARD BASIS (\$/MMBtu)

	Spot basis			MTD			MTD			Prompt forward basis		
	13-Jun	12-Jun	Chg	MTD Avg.	MTD last year	Chg	13-Jun	12-Jun	Chg	13-Jun	12-Jun	Chg
Henry Hub	2.94	2.92	0.02	2.90	2.94	-0.04	2.96	2.94	0.02			
Northwest												
GTN Kingsgate	-0.89	-0.98	0.09	-0.92	-0.69	-0.24	-0.96	-0.99	0.02			
Northwest Sumas	-0.93	-0.92	-0.02	-1.49	-0.57	-0.92	-0.95	-0.98	0.03			
Northwest Stanfield	-0.59	-0.74	0.16	-0.72	-0.52	-0.20	-0.75	-0.77	0.02			
Rockies												
Cheyenne Hub	-0.49	-0.46	-0.03	-0.50	-0.40	-0.10	-0.75	-0.77	0.02			
CIG Rockies	-0.57	-0.55	-0.03	-0.58	-0.43	-0.15	-0.75	-0.77	0.02			
Kern River Opal	-0.54	-0.45	-0.09	-0.52	-0.38	-0.14	-0.69	-0.71	0.02			
NW WY Pool	-0.56	-0.48	-0.08	-0.53	-0.42	-0.11	-0.69	-0.71	0.02			
Qwestar Rky	-0.60	-0.48	-0.12	-0.58	-0.44	-0.14	-0.71	-0.73	0.02			
Southwest												
El Paso Permian	-0.98	-0.82	-0.16	-0.79	-0.41	-0.38	-1.10	-1.02	-0.08			
El Paso San Juan	-0.60	-0.54	-0.06	-0.59	-0.42	-0.18	-0.73	-0.72	-0.01			
Kern River Dlv'd	-0.24	-0.13	-0.12	-0.26	-0.30	+0.04	-0.31	-0.31	0.01			
PG&E CG	0.07	0.10	-0.04	0.08	0.16	-0.08	0.10	0.09	0.01			
PG&E Malin	-0.51	-0.46	-0.06	-0.47	-0.34	-0.13	-0.61	-0.62	0.02			
PG&E South	-0.49	-0.39	-0.10	-0.48	-0.32	-0.16	-0.61	-0.61	-0.01			
SoCal Gas	-0.36	-0.20	-0.16	-0.34	-0.32	-0.02	-0.31	-0.32	0.01			
SoCal Gas Citygate	0.42	0.45	-0.03	0.23	0.03	+0.20	0.60	0.66	-0.06			
Transwestern Permian	-0.99	-0.82	-0.17	-0.75	-0.40	-0.34	-1.02	-0.95	-0.07			
Waha	-1.02	-0.85	-0.17	-0.76	-0.37	-0.39	-1.06	-0.97	-0.09			
West Canada												
AECO-C	-1.55	-1.89	0.34	-2.05	-0.32	-1.73	-1.74	-1.75	0.01			

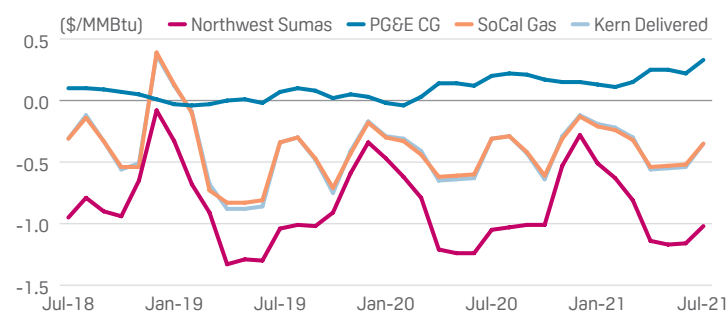
Source: Platts M2M data

SOUTHWEST, NORTHWEST, ROCKIES DEMAND FORECAST



Source: S&P Global Platts

WEST DEMAND LOCATIONS FORWARD BASIS



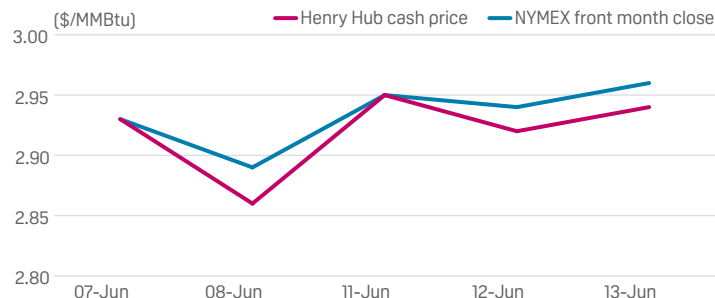
Source: S&P Global Platts

TOTAL NET PIPELINE FLOWS BY REGION (MMcf/d*)

	12-Jun	13-Jun	Change	MTD avg.	MTD last year	Change
Supply regions – net pipeline outflows						
Texas	8,813	8,744	69	8,429	8,089	340
West Canada	9,219	9,221	-2	9,047	8,500	547
Rockies	6,315	6,294	21	6,470	5,317	1,153
Midcontinent	3,543	3,356	187	3,319	2,815	504
Northeast	7,493	7,286	207	8,076	6,402	1,674
Demand regions – net pipeline inflows						
Southwest	4,404	4,471	67	4,185	4,056	129
Southeast	9,610	9,205	-405	9,895	8,555	1,340
Northwest	1,512	1,417	-95	1,339	955	384
Midwest	11,596	11,596	0	11,688	10,641	1,047
East Canada	3,701	3,606	-95	3,769	3,274	495

* Net pipeline flows by region are the aggregated total interstate pipeline flows across the regional border. Net supply regions are those that historically have had more supply than demand within the region and have been net suppliers of gas to other regions. Net demand regions historically have had more demand than supply and have been net receivers of pipeline gas from other regions.

HENRY HUB/NYMEX SPREAD



GAS DAILY SUPPLEMENTS

To access the latest issue of the Gas Daily supplements, click below.

[Gas Daily Market Fundamentals](#) (pdf)

[Gas Daily Market Fundamentals Data](#) (xls)

[Gas Daily Monthly Price Guide](#) (pdf)

*Links require PMC login. For login help, contact support@platts.com.

SHALE VALUE CHAIN ASSESSMENTS, JUN 13

	\$/MMBtu	+/-
Gulf Coast ethane fractionation spread	2.043	0.261
Gulf Coast E/P mix fractionation spread	1.892	0.260
E/P mix Midcontinent to Rockies fractionation spread	-1.205	0.080
E/P mix Midcontinent fractionation spread	-1.320	0.030
National raw NGL basket price	8.829	0.102
National composite fractionation spread	5.834	0.137

The methodology for these assessments is available at:

www.platts.com/IM/Platts.Content/MethodologyReferences/MethodologySpecs/shale-value-chain.pdf

PLATTS OIL PRICES, JUN 13

	(\$/b)	(\$/MMBtu)
Gulf Coast spot		
1% Resid (1)	65.04-65.06	10.41
HSFO (1)	64.04-64.06	10.25
Crude spot		
WTI (Jul) (2)	66.63-66.65	11.49
New York spot		
No.2 (1)	85.98-86.02	13.76
0.3% Resid LP (3)	76.26-76.28	12.20
0.3% Resid HP (3)	76.26-76.28	12.20
0.7% Resid (3)	68.26-68.28	10.92
1% Resid (3)	66.26-66.28	10.60

1= barge delivery; 2= pipeline delivery; 3= cargo delivery

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FINAL DAILY GAS INDICES – ICE LOCATIONS (\$/MMBtu)

Powered by 

Trade date: 13-Jun

Flow date(s): 14-Jun

Location	Symbol	Index	Daily Change	Absolute Low	Absolute High	Common Low	Common High	Volume	Deals
Northeast									
ICE Algonquin CG (Excl. J and G Lateral deliveries)	JAAA21	2.505	+0.050	2.420	2.550	2.475	2.540	54	12
ICE Algonquin Citygates (Excl. J Lateral deliveries)	JAAAB21	—	—	—	—	—	—	—	—
ICE Algonquin, Millennium-Ramapo receipts	JAAHF00	—	—	—	—	—	—	—	—
ICE Algonquin, TGP-Mahwah receipts	JAAHG00	—	—	—	—	—	—	—	—
ICE Iroquois, zone 1 (delivered excl. Waddington)	JAABS21	—	—	—	—	—	—	—	—
ICE Iroquois, zone 2 (non-Hunts Point/Eastchester Lateral)	JAABT21	2.815	+0.085	2.775	2.830	2.800	2.830	56	10
ICE Iroquois, zone 2 Hunts Point/Eastchester Lateral	JAABU21	—	—	—	—	—	—	—	—
ICE Maritimes, Hubline and Beverly Salem	JAACB21	—	—	—	—	—	—	—	—
ICE Maritimes and Northeast Pipeline US (buyer's choice delivered)	JAAAC21	—	—	—	—	—	—	—	—
ICE PNGTS (buyer's choice delivered)	JAADH21	3.350	+0.150	3.350	3.350	3.350	3.350	7	2
ICE Stagecoach Marcellus Hub	JAAEN21	—	—	—	—	—	—	—	—
ICE Tennessee, zone 5, 200 Line, delivered downstream of station 245	JAAEU21	2.650	+0.150	2.650	2.650	2.650	2.650	14	4
ICE Texas Eastern, Manhattan Lateral (delivered)	JAAEW21	—	—	—	—	—	—	—	—
ICE Transco, Cove Point, Pleasant Valley Interconnect	JAAAY21	—	—	—	—	—	—	—	—
ICE Transco, zone 6 (non-NY north mainline)	JAAEZ21	—	—	—	—	—	—	—	—
ICE Transco, zone 6 station 210 Pool	JAAFA21	2.805	+0.005	2.730	2.830	2.780	2.830	49	16
Appalachia									
ICE Clarington Tennessee	JAAFI21	—	—	—	—	—	—	—	—
ICE Columbia Gas, A04 Pool	JAAAU21	—	—	—	—	—	—	—	—
ICE Columbia Gas, A06 Pool	JAAAV21	—	—	—	—	—	—	—	—
ICE Columbia Gas, Segmentation Pool	JAAAW21	—	—	—	—	—	—	—	—
ICE Millennium Pipeline (buyers' choice delivered)	JAAHA21	—	—	—	—	—	—	—	—
ICE Tennessee, zone 4, station 219 Pool	JAAET21	2.600	+0.120	2.550	2.610	2.585	2.610	85	26
ICE Texas Eastern, M2 Zone (delivered)	JAAEV21	—	—	—	—	—	—	—	—
Midcontinent									
ICE Bennington, Oklahoma	JAAAM21	—	—	—	—	—	—	—	—
ICE Enable Gas, Flex Pool only	JAABE21	2.710	-0.070	2.650	2.755	2.685	2.735	70	14
ICE Enable Gas, North Pool only	JAABF21	2.650	-0.030	2.650	2.650	2.650	2.650	1	2
ICE Enable Gas, West (W1 or W2 as mutually agreed)	JAABT21	—	—	—	—	—	—	—	—
ICE Enable Gas, West Pool	JAABJ21	—	—	—	—	—	—	—	—
ICE NGPL, Gulf Coast Mainline Pool	JAACT21	—	—	—	—	—	—	—	—
ICE NGPL, Mid-Continent Storage PIN	JAACT21	—	—	—	—	—	—	—	—
ICE Northern Natural, Mid 13 - 16A Pool	JAACT21	—	—	—	—	—	—	—	—
ICE Northern Natural, Mid 1-7 Pool	JAACT21	2.000	-0.095	2.000	2.000	2.000	2.000	53	8
ICE Northern Natural, Mid 8 - 12 Pool	JAACT21	—	—	—	—	—	—	—	—
ICE Salt Plains Storage (buyers' choice)	JAACT21	—	—	—	—	—	—	—	—
ICE Salt Plains Storage (in-ground transfer only)	JAACT21	—	—	—	—	—	—	—	—
Upper Midwest									
ICE Alliance, Chicago Exchange Hub	JAAAC21	2.700	+0.025	2.700	2.710	2.700	2.705	578	62
ICE Alliance, ANR Interconnect	JAAAD21	—	—	—	—	—	—	—	—
ICE Alliance, Midwestern Interconnect	JAAFX21	—	—	—	—	—	—	—	—
ICE Alliance, NGPL Interconnect	JAAAF21	—	—	—	—	—	—	—	—
ICE Alliance, Nicor Interconnect	JAAAG21	—	—	—	—	—	—	—	—
ICE Alliance, Vector Interconnect	JAAAH21	—	—	—	—	—	—	—	—
ICE ANR, Joliet Hub CDP	JAAAK21	—	—	—	—	—	—	—	—
ICE Bluewater Gas Storage	JAAAN21	—	—	—	—	—	—	—	—
ICE Great Lakes Gas, St. Clair	JAAAM21	—	—	—	—	—	—	—	—
ICE Guardian, Guardian Hub	JAAAN21	—	—	—	—	—	—	—	—
ICE NGPL, Amarillo Pooling PIN	JAACT21	2.550	+0.010	2.540	2.550	2.550	2.550	29	10
ICE NGPL, Amarillo Storage PIN	JAACT21	—	—	—	—	—	—	—	—
ICE NGPL, Iowa-Illinois Pooling PIN	JAACT21	—	—	—	—	—	—	—	—
ICE NGPL, Iowa-Illinois Storage PIN	JAACT21	—	—	—	—	—	—	—	—
ICE NGPL, Mid-American Citygate	JAACT21	2.690	+0.010	2.690	2.700	2.690	2.695	60	8
ICE Northern Border, Harper Transfer Point	JAACT21	—	—	—	—	—	—	—	—
ICE Northern Border, Nicor Interconnect	JAACT21	—	—	—	—	—	—	—	—
ICE Northern Border, Vector Interconnect	JAACT21	2.685	+0.015	2.675	2.700	2.680	2.690	290	44
ICE Northern Border, Will County	JAACT21	2.700	+0.030	2.700	2.700	2.700	2.700	35	8
ICE REX (East), delivered into ANR	JAACT21	2.685	+0.015	2.665	2.705	2.675	2.695	140	32
ICE REX (East), delivered into Lebanon Hub	JAACT21	—	—	—	—	—	—	—	—
ICE REX (East), delivered into Midwestern Gas	JAACT21	2.695	+0.025	2.680	2.700	2.690	2.700	201	32

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Upper Midwest									
ICE REX (East), delivered into NGPL	JAADM21	2.690	+0.015	2.680	2.700	2.685	2.695	165	30
ICE REX (East), delivered into Panhandle	JAADN21	2.680	+0.080	2.675	2.685	2.680	2.685	30	10
ICE REX (East), delivered into Trunkline	JAADO21	2.670	+0.005	2.670	2.670	2.670	2.670	10	2
ICE REX (West), delivered into ANR	JAADP21	—	—	—	—	—	—	—	—
ICE REX (West), delivered into Northern Natural	JAADQ21	—	—	—	—	—	—	—	—
ICE REX (West), delivered into Panhandle	JAADR21	—	—	—	—	—	—	—	—
East Texas									
ICE Agua Dulce Hub	JAAGI21	—	—	—	—	—	—	—	—
ICE Atmos, zone 3, receipts	JAAL21	2.765	-0.010	2.740	2.795	2.750	2.780	176	32
ICE Carthage Hub Tailgate	JAAAQ21	2.765	-0.005	2.750	2.770	2.760	2.770	30	6
ICE ETC, Cleburne	JAHH00	—	—	—	—	—	—	—	—
ICE ETC, Maypearl	JAABK21	2.780	+0.020	2.750	2.800	2.770	2.795	180	16
ICE Golden Triangle Storage & Hub	JAABL21	—	—	—	—	—	—	—	—
ICE Gulf South, Pool Area #16	JAAP21	2.795	+0.035	2.765	2.810	2.785	2.805	150	24
ICE HPL, East Texas Pool	JAABR21	—	—	—	—	—	—	—	—
ICE Katy, ENSTOR Pool (excl. Kinder Morgan Texas)	JAABW21	2.995	-0.005	2.990	3.000	2.995	3.000	100	12
ICE Katy, Lonestar (warranted as Intrastate)	JAABX21	—	—	—	—	—	—	—	—
ICE Katy, Lonestar Interstate	JAABY21	3.005	+0.005	3.000	3.010	3.005	3.010	57	8
ICE Katy, Oasis Pipeline	JAABZ21	3.000	+0.000	2.995	3.000	3.000	3.000	230	20
ICE Moss Bluff Interconnect (buyers' choice delivered)	JACD21	2.990	-0.010	2.980	2.990	2.990	2.990	120	16
ICE Moss Bluff Storage (in-ground transfers only)	JACE21	—	—	—	—	—	—	—	—
ICE NGPL, TXOK East Pool	JACP21	2.765	+0.010	2.755	2.785	2.760	2.775	87	22
ICE NGPL, TXOK West Pool	JACQ21	—	—	—	—	—	—	—	—
ICE NorTex, Tolar Hub	JACR21	2.810	+0.005	2.795	2.850	2.795	2.825	191	34
ICE Tennessee, zone O North	JAAP21	—	—	—	—	—	—	—	—
ICE Tennessee, zone O South	JAEQ21	2.760	+0.030	2.750	2.770	2.755	2.765	171	34
ICE Tres Palacios Hub - Injection	JAAFE21	2.885	+0.035	2.860	2.895	2.875	2.895	207	40
ICE Tres Palacios Hub - Withdrawal	JAAFF21	2.990	+0.010	2.985	2.990	2.990	2.990	48	6
Louisiana/Southeast									
ICE ANR, SE Transmission Pool	JAAAI21	2.785	+0.045	2.730	2.860	2.755	2.820	57	8
ICE ANR, SE Gathering Pool	JAAAJ21	—	—	—	—	—	—	—	—
ICE Bobcat Interconnect (buyers' choice delivered)	JAAAO21	—	—	—	—	—	—	—	—
ICE Bobcat Storage (in-ground transfer only)	JAAAP21	—	—	—	—	—	—	—	—
ICE Egan Interconnect (buyers' choice delivered)	JAAAZ21	—	—	—	—	—	—	—	—
ICE Egan Storage (in-ground transfer only)	JABA21	—	—	—	—	—	—	—	—
ICE Enable Gas, Perryville Hub	JABG21	—	—	—	—	—	—	—	—
ICE Enable Gas, South Pool only	JABH21	—	—	—	—	—	—	—	—
ICE Gulf South, Perryville Exchange Point	JABO21	—	—	—	—	—	—	—	—
ICE Jefferson Island Storage and Hub	JABV21	—	—	—	—	—	—	—	—
ICE MS Hub Storage	JACF21	—	—	—	—	—	—	—	—
ICE NGPL, Louisiana Pooling PIN	JAACL21	—	—	—	—	—	—	—	—
ICE NGPL, Louisiana Storage PIN	JAACM21	—	—	—	—	—	—	—	—
ICE Pine Prairie Hub	JAADF21	2.860	+0.040	2.800	2.865	2.845	2.865	442	60
ICE Sonat, Zone O	JAAHE21	—	—	—	—	—	—	—	—
ICE Sonat, Zone O South Louisiana Pool	JAEJ21	2.890	+0.015	2.880	2.900	2.885	2.895	156	26
ICE Sonat, Zone 1 North Pool	JAAEK21	—	—	—	—	—	—	—	—
ICE Southern Pines Hub	JAAEM21	—	—	—	—	—	—	—	—
ICE Stingray, pool delivery	JAE021	—	—	—	—	—	—	—	—
ICE Tennessee, zone 1 100 Leg Pool	JAAER21	2.745	+0.025	2.720	2.755	2.735	2.755	84	12
ICE Tennessee, zone 1, Station 87 Pool	JAAE21	2.725	+0.030	2.720	2.740	2.720	2.730	220	42
ICE Texas Gas, Mainline Pool	JAAEX21	2.770	+0.025	2.760	2.775	2.765	2.775	223	28
ICE Texas Gas, North Louisiana Pool	JAAEY21	—	—	—	—	—	—	—	—
Rockies/Northwest									
ICE CIG, Mainline (sellers' choice, non-lateral)	JAAFY21	2.370	-0.005	2.335	2.440	2.345	2.395	99	16
ICE CIG, Mainline Pool	JAAFZ21	—	—	—	—	—	—	—	—
ICE CIG, Mainline South (sellers' choice)	JAAAT21	2.280	-0.020	2.280	2.280	2.280	2.280	42	8
ICE Kern River, on system receipt	JACA21	2.430	-0.035	2.415	2.470	2.415	2.445	194	42
ICE Opal Plant Tailgate	JAADB21	2.390	-0.085	2.350	2.470	2.360	2.420	552	78

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Rockies/Northwest									
ICE PG&E, Onyx Hill	JAAHB21	—	—	—	—	—	—	—	—
ICE Pioneer Plant Tailgate	JAADG21	—	—	—	—	—	—	—	—
ICE Questar, North Pool	JAADI21	2.340	-0.130	2.340	2.340	2.340	2.340	0.4	2
ICE Questar, South Pool	JAADJ21	—	—	—	—	—	—	—	—
ICE Ruby, Onyx Hill	JAADS21	—	—	—	—	—	—	—	—
ICE Ruby, Receipt Pool	JAADT21	2.400	+0.210	2.400	2.400	2.400	2.400	80	8
ICE Ryckman Creek Gas Storage	JAADU21	—	—	—	—	—	—	—	—
ICE WIC, Pool	JAAFH21	—	—	—	—	—	—	—	—
Southwest									
ICE El Paso, Keystone Pool	JAAAB21	1.935	-0.130	1.900	2.050	1.900	1.975	611	118
ICE El Paso, Plains Pool	JAAAB21	2.245	-0.060	2.240	2.250	2.245	2.250	127	16
ICE El Paso, Waha Pool	JAAAB21	1.935	-0.125	1.800	1.950	1.900	1.950	387	44
ICE Oasis, Waha Pool	JAAAC21	1.895	-0.165	1.885	1.930	1.885	1.905	183	26
ICE ONEOK, Westex Pool	JAAAD21	1.910	-0.150	1.900	1.930	1.905	1.920	152	28
ICE PG&E, Daggett	JAAAC21	—	—	—	—	—	—	—	—
ICE PG&E, Kern River Station	JAAAD21	—	—	—	—	—	—	—	—
ICE PG&E, Topock	JAADE21	2.455	-0.080	2.440	2.460	2.450	2.460	82	20
ICE Socal, Blythe	JAADX21	—	—	—	—	—	—	—	—
ICE Socal, Ehrenberg (delivered)	JAADY21	2.555	-0.140	2.500	2.680	2.510	2.600	272	40
ICE Socal, Firm Storage only (Citygate)	JAADZ21	—	—	—	—	—	—	—	—
ICE Socal, In-ground transfer only (Citygate)	JAAEA21	—	—	—	—	—	—	—	—
ICE Socal, Interruptible Storage only (Citygate)	JAAEB21	—	—	—	—	—	—	—	—
ICE Socal, Kern River Station	JAAEC21	2.605	-0.140	2.600	2.650	2.600	2.620	193	44
ICE Socal, Kramer Junction	JAAED21	2.650	-0.095	2.620	2.680	2.635	2.665	111	22
ICE Socal, Needles	JAAEE21	2.500	-0.050	2.500	2.500	2.500	2.500	34	6
ICE Socal, sellers' choice delivered incl. CA production	JAAEF21	—	—	—	—	—	—	—	—
ICE Socal, Topock	JAAHD21	—	—	—	—	—	—	—	—
ICE Socal, Topock, El Paso	JAAEG21	—	—	—	—	—	—	—	—
ICE Socal, Topock, Transwestern	JAAEH21	—	—	—	—	—	—	—	—
ICE Socal, Wheeler Ridge	JAAEI21	—	—	—	—	—	—	—	—
ICE Transwestern, Central Pool	JAAFB21	—	—	—	—	—	—	—	—
ICE Transwestern, Panhandle Pool	JAAFC21	—	—	—	—	—	—	—	—
ICE Transwestern, West Texas Pool	JAAFD21	1.955	-0.145	1.950	1.960	1.955	1.960	28	4
ICE Waha Hub, West Texas (buyer's choice delivered)	JAAFG21	1.955	-0.135	1.900	2.000	1.930	1.980	187	24

ICE GAS DAILY ASSESSMENT RATIONALE

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