

# **GAS DAILY**

Wednesday, October 17, 2018

## **NEWS HEADLINES**

## Midterms: Ballot initiatives and battlegrounds

- Election is potentially transformative for US energy
- Drilling restrictions among possibilities

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## New NAFTA seen limiting some protections: senator

- Uncertainties for midstream investments
- Wording fix sought in trade agreement

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## Some grid security action 'commercially motivated'

FERC's LaFleur wary of cybersecurity justification for coal supports

Industry cautioned lack of compliance could slow projects

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## Experts doubt California's carbon-free power goal

- 'No new gas plants': state regulators
- Goal of 100% reliance on renewables set for 2045

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## SPOT PRICE AND BASIS CHANGES



## **INSIDE THIS ISSUE**

New pipeline capacity lifts Pa. gas production in August
NGL market strength at Mont Belvieu lifts Devon's Q3 US output
Dominion gets green light for limited work in Virginia on ACP
NYMEX November gas settles at \$3.239/MMBtu
Regional Gas Markets
Gas Daily Supplement Links

NATIONAL AVERAGE PRICE: 3.190 Trade date: 16-Oct Flow date(s): 17-Oct						/	
	I	Midpoint	+/-	Absolute	Common	Vol. I	Deals
Northeast							
Algonquin, city-gates	IGBEE21		+0.130	3.400-3.450	3.415-3.440	119	20
Algonquin, receipts	IGBDK21		-0.230	3.100-3.250	3.100-3.160	20	4
Dracut, Mass.	IGBDW21						
Iroquois, receipts	IGBCR21		+0.040	3.380-3.500	3.395-3.455	68	23
Iroquois, zone 2 Niagara	IGBEJ21 IGBCS21		+0.015	3.360-3.460 3.200-3.200	3.380-3.430 3.200-3.200	76 16	19
Tennessee, z6 (300 leq) del.	IGBC521 IGBJC21		+0.170	3.200-3.200	3.200-3.200	10	4
Tennessee, zone 6 del.	IGB5C21 IGBEI21		+0.090	3.530-3.620	3.540-3.585	109	12
Tx. Eastern, M-3	IGBEK21		-0.050	3.070-3.150	3.070-3.110	278	67
Transco, zone 5 del.	IGBEN21		+0.025	3.200-3.380	3.300-3.380	393	90
Transco, zone 5 del. North	IGCGL21		+0.015	3.300-3.380	3.320-3.360	20	9
Transco, zone 5 del. South	IGCHL21		+0.035	3.200-3.365	3.310-3.365	372	81
Transco, zone 6 N.Y.	IGBEM21	3.105	-0.070	3.100-3.110	3.105-3.110	37	12
Transco, zone 6 non-N.Y.	IGBEL21	3.120	-0.030	3.070-3.170	3.095-3.145	216	51
Transco, zone 6 non-N.Y. North	IGBJS21	3.120	-0.030	3.070-3.170	3.095-3.145	215	50
Transco, zone 6-non-N.Y. South	IGBJT21	3.130	+0.190	3.130-3.130	3.130-3.130	0.32	1
Northeast regional average	IGCAA00	3.280					
Appalachia							
Columbia Gas, App.	IGBDE21	3 105	+0.035	3.080-3.145	3.090-3.120	637	135
Columbia Gas, App. non-IPP	IGBJU21		_				
Dominion, North Point	IGBDB21		-0.015	2.960-3.050	2.990-3.035	328	54
Dominion, South Point	IGBDC21		+0.000	2.945-3.015	2.960-2.995		
Lebanon Hub	IGBFJ21		+0.075	3.180-3.245	3.200-3.230	90	21
Leidy Hub	IGBDD21		_			_	
Millennium, East receipts	IGBIW21	3.000	-0.020	2.980-3.030	2.990-3.015	61	23
Tennessee, zone 4-200 leg	IGBJN21	3.165	+0.010	3.095-3.180	3.145-3.180	473	90
Tennessee, zone 4-300 leg	IGBFL21	3.000	-0.035	2.990-3.000	3.000-3.000	79	22
Tennessee, zone 4-313 pool	IGCFL21	3.135	+0.000	3.110-3.180	3.120-3.155	129	31
Texas Eastern, M-2 receipts	IGBJE21	2.980	-0.030	2.930-3.030	2.955-3.005	995	180
Transco, Leidy Line receipts	IGBIS21	3.090	-0.015	3.050-3.150	3.065-3.115	435	91
Appalachia regional average	IGDAA00	3.070					
Midcontinent							
ANR, Okla.	IGBBY21	3.115	+0.110	3.070-3.150	3.095-3.135	158	26
Enable Gas, East	IGBCA21		+0.005	3.050-3.070	3.060-3.070	51	12
NGPL, Amarillo receipt	IGBDR21		+0.085	3.280-3.320	3.290-3.310	62	12
NGPL, Midcontinent	IGBBZ21		+0.055	2.920-2.990	2.930-2.965	574	95
Oneok, Okla.	IGBCD21		+0.095	2.080-2.220	2.140-2.210	308	49
Panhandle, TxOkla.	IGBCE21		+0.035	2.960-3.050	3.005-3.050	314	56
Southern Star	IGBCF21		-0.010	2.900-2.900	2.900-2.900	0.4	2
Tx. Eastern, M-1 24-in.	IGBET21		+0.020	3.200-3.240	3.215-3.235	7	2
Midcontinent regional average	IGEAA00						
Upper Midwest		0.005	. 0. 000	0.000.0.450	0.000 0.405	500	
Alliance, into interstates	IGBDP21		+0.080	3.300-3.450	3.330-3.405	598	98
ANR, ML 7	IGBDQ21		+0.095	3.380-3.380	3.380-3.380	20	157
Chicago city-gates Chicago-Nicor	IGBDX21 IGBEX21		+0.110	3.310-3.430 3.350-3.430	3.360-3.420 3.370-3.410	383	157 70
Chicago-NIPSCO	IGBEX21 IGBFX21		+0.075	3.310-3.420	3.355-3.410	422	51
Chicago-Peoples	IGBGX21		+0.110	3.350-3.415	3.385-3.415	435	36
Consumers city-gate	IGBDY21		+0.010	3.315-3.350	3.325-3.345	217	42
Dawn, Ontario	IGBCX21		+0.090	3.320-3.490	3.345-3.430		117
Emerson, Viking GL	IGBCW21		+0.030	3.300-3.380	3.330-3.370	256	60
Mich Con city-gate	IGBDZ21		+0.055	3.250-3.400	3.265-3.340		118
Northern Bdr., Ventura TP	IGBGH21		+0.085	3.315-3.390	3.340-3.380	386	63
Northern, demarc	IGBDV21		+0.090	3.340-3.395	3.360-3.390	286	39
Northern, Ventura	IGBDU21		+0.080	3.335-3.390	3.350-3.380	699	76
REX, Zone 3 delivered	IGBR021		+0.045	3.120-3.250	3.185-3.250		



## Midterm Elections: Ballot initiatives and battlegrounds

A potential swing to a Democrat-controlled House of Representatives and a host of important energy-related state ballot initiatives make the US midterm election cycle a potentially transformational event for US energy. Oil, natural gas and power market players are bracing for the possibility of a new landscape after voters leave the polls November 6.

Hanging in the balance on election day: the potential for tightening oil and natural gas supply due to significant restrictions on drilling in Colorado and Coastal Florida; major boosts to renewables at the

#### (continued on page 3)

## PLATTS NATURAL GAS DAILY ASSESSMENT RATIONALE

These locations were assessed by Platts and deviated from the standard volume weighted average methodology in the following ways:

Trunkline, WLA: Price of \$3.27/MMBtu was assessed at 3-cent premium to Trunkline, ELA based on recent daily gas trading and verified by ICE bid/offer activity.

All other Platts daily indices are based upon trade data reported to Platts by market participants and trade data submitted by 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: <a href="http://www.platts.com/IM.Platts.content/MethodologySpecs/na\_gas\_methodology.pdf">http://www.platts.com/IM.Platts.content/MethodologySpecs/na\_gas\_methodology.pdf</a>

Questions may be directed to Samer Mosis at samer.mosis@spglobal.com

## 2-DAY-AHEAD TEMPERATURE FORECAST MAP

October 16 forecast for October 18



Source: S&P Global Platts, Custom Weather

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

Trade date: 16-Oct Flow date(s): 17-Oct

ow date(s): 17-Oct							
		Midpoint	+/-	Absolute	Common	Vol. I	Deals
East Texas							
Agua Dulce Hub	IGBAV21	3.450	+0.090	3.450-3.450	3.450-3.450	26	2
Carthage Hub	IGBAF21		+0.010	3.160-3.195	3.160-3.180	75	12
Florida Gas, zone 1	IGBAW21	3.240	+0.010	3.220-3.260	3.230-3.250	139	7
Houston Ship Channel	IGBAP21	3.600	+0.010	3.600-3.600	3.600-3.600	85	14
Katy	IGBAQ21	3.515	+0.000	3.460-3.550	3.495-3.540	375	41
NGPL, STX	IGBAZ21	3.225	-0.095	3.225-3.250	3.225-3.230	33	6
NGPL, Texok zone	IGBAL21		+0.015	3.060-3.230	3.145-3.230	1402	200
Tennessee, zone 0	IGBBA21		+0.040	3.120-3.210	3.175-3.210	213	54
Tx. Eastern, ETX	IGBAN21		+0.030	3.230-3.250	3.230-3.240	46	10
Tx. Eastern, STX	IGBBB21		-0.030	3.290-3.325	3.300-3.320	81	18
Transco, zone 1	IGBBC21		+0.025	3.220-3.265	3.235-3.255	12	10
Transco, zone 2	IGBBU21 IGGAA00		+0.050	3.260-3.260	3.260-3.260	0.8	2
East Texas regional average	IGGAADO	3.305					
Louisiana/Southeast							
ANR, La.	IGBBF21		+0.075	3.180-3.230	3.200-3.225	179	28
Columbia Gulf, La.	IGBBG21		+0.010	3.210-3.240	3.215-3.230	266	44
Columbia Gulf, mainline	IGBBH21		+0.030	3.090-3.200	3.135-3.190		174
Florida city-gates	IGBED21		+0.075	3.950-3.950	3.950-3.950	5	1
Florida Gas, zone 2	IGBBJ21		+0.005	3.245-3.250	3.250-3.250	67	5
Florida Gas, zone 3	IGBBK21		+0.045	3.390-3.450	3.390-3.420	597	65
Henry Hub	IGBBL21		+0.015	3.250-3.310	3.255-3.285	274	42
Southern Natural, La.	IGBB021 IGBHI21		+0.030 +0.040	3.200-3.265	3.210-3.240	495	84 39
Tennessee, zone 1 Tennessee, 500 Leg	IGBH121		+0.040	3.200-3.250 3.210-3.250	3.215-3.240 3.220-3.240	258 331	68
Tennessee, 800 Leg	IGBBQ21		+0.035	3.220-3.240	3.220-3.230	240	44
Tx. Eastern, ELA	IGBBS21		+0.060	3.190-3.225	3.205-3.225	117	24
Tx. Eastern, M-1 30-in.	IGBDI21		+0.020	3.270-3.270	3.270-3.270	0.6	2
Tx. Eastern, WLA	IGBBR21		+0.035	3.235-3.275	3.255-3.275	167	20
Tx. Gas, zone 1	IGBA021		+0.015	3.150-3.195	3.155-3.175	954	136
Tx. Gas, zone SL	IGBBT21		+0.050	3.200-3.200	3.200-3.200	0.8	2
Transco, zone 3	IGBBV21	3.270	+0.040	3.260-3.280	3.265-3.275	258	45
Transco, zone 4	IGBDJ21	3.280	+0.030	3.265-3.290	3.275-3.285	1321	218
Trunkline, ELA	IGBBX21	3.240	+0.070	3.190-3.260	3.225-3.260	7	3
Trunkline, WLA	IGBBW21	3.270**	+0.060	3.270-3.270	3.270-3.270	0	0
Trunkline, zone 1A	IGBGF21	3.185	+0.045	3.150-3.200	3.175-3.200	411	58
Louisian/Southeast regional average	IGHAA00	3.275					
Rockies/Northwest							
Cheyenne Hub	IGBC021	3.090	+0.070	3.070-3.100	3.085-3.100	246	43
CIG, Rockies	IGBCK21	3.070	+0.050	3.050-3.075	3.065-3.075	54	10
GTN, Kingsgate	IGBCY21	3.120	+0.090	3.110-3.120	3.120-3.120	23	6
Kern River, Opal	IGBCL21	3.100	+0.055	3.060-3.130	3.085-3.120	957	168
NW, Can. bdr. (Sumas)	IGBCT21	4.630	-0.315	4.000-5.500	4.255-5.005	120	22
NW, s. of Green River	IGBCQ21	2.995	+0.010	2.980-3.000	2.990-3.000	52	16
NW, Wyo. Pool	IGBCP21	3.100	+0.035	3.050-3.130	3.080-3.120	814	135
PG&E, Malin	IGBD021	3.185	+0.060	3.140-3.230	3.165-3.210	254	40
Questar, Rockies	IGBCN21	3.030	+0.080	3.030-3.030	3.030-3.030	2	2
Stanfield, Ore.		3.150		3.150-3.150	3.150-3.150	38	6
TCPL Alberta, AECO-C*	IGBCU21		-0.580	0.420-0.895	0.500-0.740	507	97
Westcoast, station 2*	IGBCZ21	-0.135	+0.050	-0.180-	-0.100 -0.155-	-0.11	5114
28 Milita Disculture		0.055	.0.070	0.040.0.070	0.050.0.005	05	- 10
White River Hub	IGBGL21		+0.070	3.040-3.070	3.050-3.065	95	19
Rockies/Northwest regional average	IGIAA00	3.230					
Southwest							
El Paso, Bondad	IGBCG21	2.515	+0.035	2.500-2.600	2.500-2.540	130	14
El Paso, Permian	IGBAB21	2.315	+0.160	2.100-2.690	2.170-2.465	1396	183
El Paso, San Juan	IGBCH21		+0.125	2.500-2.700	2.560-2.660	185	31
El Paso, South Mainline	IGBFR21		+0.040	2.700-2.800	2.730-2.780		
Kern River, delivered	IGBES21		+0.025	3.275-3.315	3.295-3.315	619	
PGSE city-gate	IGBEB21		+0.060	3.700-3.775	3.725-3.765		
PG&E, South	IGBDM21		+0.165	2.670-2.780	2.670-2.720	58	
SoCal Gas	IGBDL21		+0.030	2.750-3.300	3.060-3.300	586	
SoCal Gas, city-gate	IGBGG21		+0.590	4.750-5.250	4.785-5.035	151	42
Transwestern, Permian Transwestern, San Juan	IGBAE21		+0.195	2.300-2.470 2.550-2.700	2.300-2.385	59 96	
Waha	IGBGK21 IGBAD21		+0.085	2.550-2.700	2.550-2.625 2.220-2.420	96	
Southwest regional average	IGJAA00		0.100	2.100-2.000	2.220-2.720	557	
*Price in C\$ per gj; C\$1=US\$0.7729;			/olume in	000 MMBtu/da	ay. Symbols rec	oresen	t oas
flow date.		/			. ,		0

expense of nuclear and fossil-fueled power generation; greater obstacles for developers of natural gas infrastructure in the Northeast; and a move to a market-based power structure in Nevada.

"Energy sector developments are ultimately the result of a convergence of three forces – markets, technology and policies," observed Roman Kramarchuk of S&P Global Platts Analytics, adding that "significant policy changes can happen quickly, particularly in a politically polarized and populist world."

He noted that in Colorado, Proposition 112 would "dramatically cut the land open to new oil and gas development in the prolific Denver-Julesburg basin." Platts Analytics estimates that this measure would reduce the number of wells drilled by nearly 80%, with a resulting drop off in oil production of 300,000 b/d and natural gas production of 1.5 Bcf/d by the end of 2023, compared with its reference-case forecasts.

If Republicans are able to hang on to their majorities in the House and Senate, President Donald Trump will have a clear path to pursue the full measure of his regulatory-rollback and pro-energy agendas. But if Democrats wrest control, even in just one chamber, the Trump march will be slowed.

## GAS DAILY MEXICO PRICES (\$/MMBtu)

#### Trade Date: 16-Oct Flow Date(s): 17-Oct

Location	Region		Proxy Hub	Proxy Hub	Transport	
				Price	Cost	Price
Rosarito	Baja	AAZMC21	Socal Border	3.195	0.190	3.385
Aguascalientes	Central	AAZMO21	El Encino	2.998	0.578	3.576
Tula	Central	AAZMN21	Tuxpan	4.367	0.545	4.912
Valtierrilla	Central	AAZMH21	Los Ramones - Monterrey	3.855	0.615	4.470
Villa de Reyes	Central	AAZMI21	Los Ramones - Monterrey	3.855	0.579	4.434
El Encino	North	AAZME21	Waha	2.320	0.678	2.998
Juarez	North	AAZMA21	Waha	2.320	0.521	2.841
Los Ramones - Monterrey	Northeast	AAZMF21	Tennessee, zone 0	3.195	0.660	3.855
Reynosa	Northeast	AAZMB21	TETCO STX	3.310	0.512	3.822
Sierrita	Northwest	AAZMD21	Waha	2.320	0.973	3.293
Topolobambo	Northwest	AAZMP21	El Encino	2.998	0.554	3.552
Merida	Peninsula	AAZMK21	Ciudad Pemex	4.681	0.684	5.365
Ciudad Pemex	South	AAZMJ21	Tuxpan	4.367	0.314	4.681
Puente Moreno	South	AAZMG21	Los Ramones - Monterrey	3.855	0.492	4.347
Tuxpan	South	AAZML21	Reynosa	3.822	0.545	4.367
Guadalajara	West	AAZMM21	Aguascalientes	3.576	0.637	4.213

Prices are a netforward calculation using selected Platts Gas Daily indices plus fully loaded transportation costs and are published in USD per MMBtu.



Source: S&P Global Platts

## PLATTS GAS DAILY MEXICO

There are nine state ballot initiatives that could impact a broad cross section of energy markets, companies and strategies. Meanwhile, races for governor in Michigan, New Mexico and New York, and for the US Senate seat in Texas, also could significantly shift decision-making on key energy issues.

Here's a quick rundown of key races and ballot measures:

## **US: House of Representatives**

Overview: Control of US House will impact Trump agenda progress. Polls: As of October 16, polling firm 538 estimated a 84.7% chance that Democrats would win control.

Energy impact: If Democrats prevail, expect a message-heavy agenda that touts the "clean energy" economy and showcases concern over climate change, although little major legislation is expected. Oversight may heat up on such topics as methane emissions regulation, public lands decisions, and steps to keep coal and nuclear plants afloat. The chair of the House Energy and Commerce Committee is likely to be Representative Frank Pallone of New Jersey, and the gavel at House Natural Resources would likely go to Raul Grijalva of Arizona. Pallone said one of his priorities would be "holding the Trump administration accountable for dangerous policies that only make [climate change] worse." In the event a Democratic House votes to impeach Trump, a safe bet is that all policy debate and legislation would grind to a halt. One potential area of common ground is infrastructure legislation.

## US: Senate

Overview: Control of the Senate is key for confirming judges, agency positions.

Polls: As of October 16, polling firm 538 estimated a 80.9% chance that Republicans would hold the majority.

Energy impact: The Trump approach to regulating power sector and oil and gas emissions will likely be resolved in court. Backers of the president's deregulation agenda see keeping Senate control as essential to confirming judges with an ultimate say in energy and environmental policy. Trump's choice to fill a fifth slot at FERC, Bernard McNamee, also faces longer odds in the unlikely event of a Senate flip. The Senate Energy and Natural Resource chairmanship could be in question in that event. If Senator Maria Cantwell of Washington moves over to the Commerce Committee, the chairmanship could fall to either Joe Manchin of West Virginia or Martin Heinrich of New Mexico, according to Washington sources. The elections also put in doubt the future of some pro-fossil fuel Democrats who make for key Senate energy dealmakers, such as Heidi Heidkamp of North Dakota.

## New Mexico: governor

Overview: US Representatives Michelle Lujan Grisham, Democrat, and Steve Pearce, Republican, are campaigning to replace term-limited Republican Governor Susana Martinez.

Polls: The race has swung from a dead heat to a slight lead for Lujan Grisham.

Energy impacts: Lujan Grisham is seen as more likely to embrace drilling regulations, such as limits to methane emissions, while Pearce is expected to oppose any new state and federal limits. In Congress last year, Pearce proposed withholding Interior Department funds to implement methane regulations, which he said were putting the state's small producers out of business. New Mexico, the third top oilproducing state, has faced similar pipeline takeaway constraints as Texas, where natural gas flaring also has surged in order to keep oil wells producing. Departing Governor Martinez oversaw a deregulatory push to reexamine state rules and resist new federal rules.

## New York: governor, state senate

Overview: The already difficult climate for natural gas project permitting may become more challenging if Governor Andrew Cuomo prevails over Republican challenger Marc Molinaro.

Polling: Cuomo is favored to win by 18% in September 20-27 Siena poll; State Senate is a tossup.

Energy impact: Natural gas infrastructure faces uncertainty in the state, where regulators have already nixed several pipeline projects and assertive environmentalists want further restrictions. Incumbent Governor Andrew Cuomo was pulled further to left in the primary. When confronted by an activist, he stated he would not allow the construction of any new natural gas-fired power plants. How far he tacks to the center is an open question. Some industry groups say more natural gas is needed to meet the current target of 50% renewables. But if a blue wave materializes and the state Senate flips to Democratic control, that would create an opening for stalled legislative efforts to make the state 100% fossil free by 2050.

## Michigan: governor

Overview: Former state senator Gretchen Whitmer, recently endorsed by US Senator Bernie Sanders and the Sierra Club, is the Democrat, facing off against Bill Schuette, the current attorney general.

Polls: Various analysts have Whitmer ahead by 8-12 points.

Energy Impacts: At stake is the future of Enbridge Energy's aging, 645-mile Line 5 oil and NGL pipeline running through the Straights of Mackinac. Current Governor Rick Snyder in early October inked a deal under which Enbridge would build a utility corridor tunnel running along the current route that would house a new pipeline as well as power and telecommunications cables. The existing line would remain in service during the project, which is estimated to take up to 10 years to complete. If elected, Whitmer has vowed to move quickly to negotiate the shutdown of Line 5, which carries upwards of 540,000 b/d of crude and NGLs from Canada's oil sands to the US Midwest and Ontario. Canadian throughput currently is so constrained that any lessening of

#### S&P Global Platts

## **SNAPSHOT VIDEO** LNG the cure for Canada's gas woes

Breaking the global impasse on final investment decisions for largescale LNG export projects, Shell last week announced the sanctioning of a 13 million mt/year export project in Western Canada. How competitive is it with US Gulf contenders and will it usher in the next series of green lights? Madeline Jowdy, senior director, global gas and LNG for S&P Global Platts, examines the market.

Watch the video here: http://plts.co/4mKT30mcmJw capacity would make clearing the market even more challenging, according to Platts Analytics. Whitmer also has endorsed a goal of 100% renewable energy in the state.

## Texas: US Senate

Overview: US Senator Ted Cruz, Republican-Texas, faces wellfunded Democrat Beto O'Rourke.

Polls: Recent polls show Cruz in the lead, but the race has generated considerable national attention, and Democratic campaign cash is streaming into the state.

Energy impact: Cruz has been one of the loudest voices in Washington for reforming the Renewable Fuel Standard, although the White House discarded his proposal to cap Renewable Identification Numbers at 10 cents. Cruz rallied Northeast oil refinery workers, complaining that the biofuel policy is putting the facilities out of business and threatening regional energy security. Trump sided with ethanol interests in October, directing the Environmental Protection Agency to approve year-round sales of higher-ethanol blends, although Trump asked for new rules for RINs trading as a concession to refiners. While presenting himself as pragmatic and a supporter of the broader elements of the Texas energy economy, O'Rourke wants to increase federal funding of climate research, rejoin the Paris climate agreement, increase EPA's independence and support stronger land-use policies in Texas.

## Colorado: Proposition 112

Overview: Passage would increase oil and gas drilling setbacks from 500 feet to 2,500 feet.

Polls: Polling information is limited, but a recent internal poll funded by the oil and gas industry had the measure passing.

Energy implications: Colorado's drilling setback proposal would ban most new drilling in the prolific DJ Basin, the fastest growing production area in the Rocky Mountain region. New wells drilled in the basin would be reduced by about 78% starting in 2021, according to S&P Global Platts Analytics. The state's oil production would sink to 275,000 b/d by end-2023, a 54% decline from current projections, and natural gas output would fall to 1.9 Bcf/d, down 45% from the current outlook, S&P Global Platts Analytics estimated. The figures reflect natural well declines, assuming operators would leave currently producing wells in place, but not drill any new wells after 2020, as Colorado's approved drilling permits are valid for two years. Colorado is the sixth largest producing state, both for oil and natural gas.

## PROPOSITION 112'S POTENTIAL IMPACT TO DJ OIL PRODUCTION



#### PROPOSITION 112'S POTENTIAL IMPACT TO DJ GAS PRODUCTION



Source. Sor Global Flatts Allalytics

## **California: Proposition 6**

Overview: If approved, the proposition would repeal a recent 12-cent/gallon gasoline tax increase and prevent state lawmakers from increasing gas taxes in the future without voter approval.

Polls: A September poll by the Public Policy Institute of California of 964 likely voters found that 39% supported the proposition, 52% opposed it and 8% were undecided. An August poll of 900 likely voters by Probolsky Research found that 36% supported the proposition, 48% opposed it, and 8% were undecided.

Energy implications: California is the most populous state in the US and one that consumes about 43 million gallons of gasoline every day. The proposition, if approved, would repeal a 12-cent/gallon increase in the gas tax and also a 20-cent/gallon diesel fuel tax that went into effect on November 1. The tax increase is intended to help fund mass transit and transportation infrastructure projects. Sam Ori, executive director at the Energy Policy Institute at the University of Chicago, said the increase is unlikely to impact statewide gasoline demand, which is relatively inelastic, but it is unclear if voters would approve future tax increases that could have more meaningful impacts on demand. "On the one hand, people, generally speaking, don't like to pay more for gasoline," Ori said in an interview with the Platts Capitol Crude podcast. "On the other hand… Californians are pretty ambitious on climate policy and addressing climate change."

#### Florida: Amendment 9

Overview: If approved, the amendment would prohibit drilling, either for exploration or extraction, of oil or natural gas in state waters.

#### CALIFORNIA GASOLINE DEMAND



The ballot item is a state constitutional amendment that also includes a possible ban on electronic cigarettes and other vapor-generating devices in certain workplaces. The amendment, which requires a 60% supermajority vote for approval, has been challenged in Florida's Supreme Court because the offshore drilling ban and vaping issues are unrelated, but included in the same amendment.

Polls: A June poll commissioned by the Florida Chamber of Commerce of 605 likely voters found that 55% supported the amendment, 31% opposed it and 14% were undecided.

Energy Implications: The amendment would prohibit drilling in all state waters along Florida's shoreline, which includes submerged lands 10.36 statutory miles off Florida's west coast and 3 nautical miles off the east coast. The amendment would not impact the transportation of oil, refined products or LNG through state waters by pipeline or ship nor possible future drilling in federal waters. The amendment would have no apparent impact on supply since no drilling currently takes place in state waters, but would prohibit future development. Its potential passage may serve political purposes as the Trump administration works to finalize its offshore oil and gas lease sale plan. Interior Secretary Ryan Zinke has told Governor Rick Scott that Florida waters will be excluded from the final plan, but has declined to offer specifics and has said that a final decision has yet to be made. The federal offshore plan has been an issue in the current race for US Senate between Scott and Senator Bill Nelson, a Democrat. Nelson has criticized Scott for not getting federal waters offshore Florida explicitly removed from future offshore leasing plans.

## Washington: Initiative 1631

Overview: Carbon fee set at \$15/mt starting in 2020, increasing by \$2/mt annually until the state meets its existing greenhouse gas reduction goal for 2035 and is on track to meet its 2050 goal.

Polls: Appears to have broader support than a similar carbon tax proposed in 2016, which was rejected by 59% of voters.

Energy impacts: Oil refineries, natural gas-fired power plants and other large users of fossil fuels would be hit by the fee, which would generate an estimated \$2.3 billion in the first five years. Washington has 3.4% of the nation's oil refining capacity. The fee would not apply to the state's sole coal-fired power plant, which is already required to close by 2025. Competing ballot initiatives 1601 and 1602 would prohibit state and local governments from imposing a carbon tax and collecting revenue from one. If passed, the carbon fee would be a first of its kind nationally and would likely lead to similar proposals in other states to curb emissions.

## Arizona: Proposition 127

Overview: Passage would increase Arizona's renewable portfolio standard to require electric utilities to get 50% of their electricity from renewables by 2030, up from the current mandate for 15% renewables by 2025.

Polls: A late-September Suffolk University/Arizona Republic poll showed 46% of voters oppose the measure and 33% support it.

Energy implications: The high proportion of renewables and quick deadline proposed in Proposition 127 would decrease emissions from the state's electric sector, but would create a number of challenges for grid stability. The state's utility, Arizona Public Service, has opposed the proposal, citing the mismatch between renewable generation and customer demand patterns. Advocates criticize the utility's opposition and say the measure would lower energy bills. APS says the proposition could lead to early retirement of the 3.9-GW Palo Verde nuclear plant in 2025 and the 1.5 GW Four Corners coal-fired plant. Palo Verde's unit licenses run through 2046 and 2047.

### Nevada: Question 3

Overview: Amends the state constitution to require Nevada to transition away from its vertically integrated utility system to a competitive, market-based structure. Large commercial customers are expected to see benefits in the form of reduced rates, and the biggest backers of the measure are data-storage firm Switch and the Las Vegas Sands Corporation. The state's incumbent utility, NV Energy, opposes the measure, as do the Sierra Club and Natural Resources Defense Council, who say the move would interrupt NV Energy's commitment to boost renewables.

Polls: A September Suffolk University/Reno Gazette poll showed 51% of voters opposed the initiative while 32% supported it. The measure passed in 2016, but it needs to be approved again to become a part of the Nevada Constitution.

Energy implications: If the measure passes, NV Energy would likely be forced to divest its generating assets and assign its contracts to new owners, according to a report by the Nevada Public Utilities Commission. The PUC also found the change can be implemented by the measure's 2023 deadline, but it would be a heavy lift. A report by the Governor's Committee on Energy Choice recommended that if the measure succeeds, Nevada should join an existing grid operator, presumably California Independent System Operator.

## Nevada: Question 6

Overview: Increases Nevada's renewable portfolio standard to require utilities to get 50% of their electricity from renewable resources by 2030, up from the current mandate for 25% by 2025.

Polls: An April poll by the Mellman Group showed 68% of voters supported the measure and 20% opposed it. As a constitutional amendment, Question 6 needs to be approved by voters twice; if it passes in November, it would appear again in 2020.

Energy implications: NV Energy is on pace to surpass the current standard, reaching an overall 23.8% RPS in 2017. And the utility plans to double its renewable energy by 2023, potentially putting it on track to

**S&P Global** Platts

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## MIDTERMS 2018: CRUCIAL ENERGY QUESTIONS DOMINATE US BALLOTS

A potential swing to a Democrat-controlled House of Representatives, gubernatorial races with key policy implications, and a host of important ballot initiatives make November 6 a potentially transformational day for the US energy landscape. Here's what you need to know:

## A BATTLE FOR SENATE MAJORITY

If Republicans maintain control of the Senate as predicted, the Trump administration's deregulation agenda should march forward with the confirmation of judges who will take a conservative approach to energy and environmental policy. Trump's pick to fill the fifth slot at FERC, Bernard McNamee, should face little opposition under a Republican Senate. The election also puts in doubt the future of some pro-fossil fuel Democrats, such as Heidi Heidkamp of North Dakota, who have been key for deal-making.

## BATTLE FOR HOUSE OF REPRESENTATIVES MAJORITY

If Democrats gain control of the House as predicted, expect the "clean energy" economy and climate change to be important agenda items with little major legislation actually enacted. Oversight would heat up on key partisan issues such as methane emissions regulation, public lands decisions, and preservation of coal and nuclear generation. Frank Pallone (D) of New Jersey would be the likely chair of the House Energy and Commerce Committee. He has promised to hold the Trump administration accountable for policy decisions that could worsen climate change.



## "Energy sector developments are ultimately the result of a convergence of three forces – markets, technology and policies. Significant policy changes can happen quickly, particularly in a politically polarized and populist world."

-Roman Kramarchuk, S&P Global Platts Analytics

Source: S&P Global Platts and S&P Global Platts Analytics

meet the increased RPS even without the mandate. But NV Energy announced in May that it might not pursue its planned investment in 1 GW of new renewable energy if Question 3 passes, saying it wants to avoid increasing liabilities for customers.

### **Missouri: Proposition D**

Overview: If approved, the proposition would raise the state's gasoline tax by 10 cents/gallon, to 27-cents/gallon, over four years. The proposition also would create a fund for road projects and exempt Olympic prizes from state taxes.

Polls: There is no polling on the ballot, but Missouri voters have previously defeated five proposed gas tax increases and approved three, including the state's initial, 2 cents/gallon gas tax in 1924.

Energy Implications: The proposition, if approved, is unlikely to impact demand since it is a relatively minor tax increase phased in over time. The proposition increases the tax for gasoline and diesel by 2.5 cents/gallon per year by 2022. The tax increase on compressed gas, LNG and propane used as an alternative fuel would take effect in 2026. The measure sets up an equivalent tax rate from all alternative fuels. Revenue from the gas tax increase would be used for state highway patrol funding.

— <u>Staff</u>

## Investor protections in new NAFTA could leave out some developers: US senator

- Uncertainties for midstream investments
- Wording fix sought in trade agreement

Trump administration trade policies continued to have reverberations for the natural gas sector, with concerns growing over whether narrowed investor protections in the reworked NAFTA agreement could present risks for investors in midstream and downstream operations in Mexico.

A new North American trade agreement rolled out in late September keeps an investor dispute settlement process (ISDS) between the US and Mexico but discards protections between the US and Canada.

ISDS has allowed a company to seek international arbitration for claims that a government action diminished the value of its crossborder investment. Keeping an investor protection chapter in the agreement with Mexico was a relief for upstream oil and gas investors. But details of the wording have left questions over whether midstream interests would be excluded from coverage that applies to energy sector interests engaged in contracts with the central government.

The oil and gas industry, in seeking the protections leading up to the new deal, has highlighted the history of expropriation of production assets more than 70 years ago in Mexico and in 2005 in Venezuela.

#### **Pipeline investments**

Senator Bill Cassidy, Republican-Louisiana, on Tuesday welcomed the successful renegotiation of the trade deal but said he was not pleased the agreement pulled back on ISDS protections. During a question-and-answer session Tuesday at the North American Gas Forum, sponsored by Energy Dialogues, Cassidy said that if a company is building a gas line out of the Permian Basin and directly contracting with the Mexican government, then ISDS provisions remain as a fallback.

"If you're a major, that's going to work. But if you're a sub[contractor] working for the major, it may not because you're not contracting with the Mexican federal government," he said. "If you're contracted with PEMEX, and if PEMEX is working on behalf of the federal government, you have protection; but if it's PEMEX operating on behalf of a commercial client, you don't," he added.

The complexity presents risks for some companies that are not "super majors" or majors, Cassidy said. "I do think that Congress has a chance to push on that to better protect our folks."

Fred Hutchison, president of LNG Allies, who moderated the panel, agreed the matter could be a hurdle going forward.

#### State-owned enterprises

There is debate over whether midstream or downstream interests that have contracts with state-owned companies such as Comision Federal de Electricidad or PEMEX would be covered by the safeguards. The same questions apply for developers of generation doing business with state-owned entities.

Liberalization of the Mexican energy market has increased investment of US interests in the developing pipeline infrastructure as

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© 2018 Intercontinental Exchange, Inc. The following are Exchange, Inc. and/or its affiliated companies: Interconti Exchange and NYSE. For more information regarding tra Exchange. Inc. and/or its affiliated companies see: interc well as LNG import facilities. Sempra Energy, through its subsidiary IEnova, currently owns and operates eight natural gas pipelines that have commenced operations in northwestern Mexico, representing 7.3 Bcf/d of mainline capacity over 892 miles.

"It's a growing matter of concern for companies that already have made significant investments in midstream and downstream sectors" in Mexico, said Joshua Zive, a trade lawyer with Bracewell. Zive noted there is an opportunity to clarify the language in the trade agreement even before the deal heads to Congress.

— <u>Maya Weber, John Hilfiker</u>

## FERC's LaFleur says some grid security interventions 'commercially motivated'

- LaFleur wary of cybersecurity justification for coal supports
- Industry cautioned lack of compliance could slow projects

US Federal Energy Regulatory Commission member Cheryl LaFleur on Monday poked at proposals to compensate generating resources, such as coal-fired plants, that struggle to compete with natural gas in wholesale power markets.

Speaking at the North American Gas Forum sponsored by Energy Dialogues, the Democratic commissioner said cheap and plentiful gas supplies, and the ability to quickly build gas-fired generation, had helped make gas the generating fuel of choice in some parts of the country. That has led some coal and nuclear generators to seek market rules to compensate them under the rubric of grid resilience, she said.

Some concerns may be "sensible," such as those over multiple power plants relying on one natural gas pipeline, she said. But she called other concerns "more commercially motivated, like criticizing... cyber security and natural security of natural gas pipelines," but offering an answer of "let's pay some other resource that we like more," rather than making pipelines more secure, she said.

## **Grid resilience**

FERC earlier this year voted unanimously to reject a proposal from the Department of Energy to compensate generating resources with 90 days of fuel stored onsite. A leaked DOE memo in May later presented a national security rationale for potentially requiring grid operators to compensate struggling generators. Months later, a full-fledged proposal has yet to surface from the White House.

"In the meantime, we have to try to apply the rules as squarely as we can," and make sure that if there's a problem the solution is tailored to the problem, LaFleur said.

With FERC down to four members, LaFleur is a key swing vote, particularly on natural gas infrastructure approvals, which have become more divisive. She continued to walk a careful line Monday, recounting the areas of her prior dissents on natural gas projects while stating FERC commissioners should seek common ground. Whether a 2-2 split vote at the commission holds up other projects may depend on how long FERC is without a fifth commissioner, she told reporters.

#### **Cautionary tales**

As the administration seeks to speed LNG permitting, LaFleur offered the industry attendees notes of caution. FERC has to be sure it doesn't compromise its responsibility under the Natural Gas Act or the National Environmental Policy Act to carefully review applications and not short-change the stakeholder process, she said. She pointed out that after FERC approvals of gas projects, lawsuits now often ensue in which those opposed to the infrastructure are "making sure there are no holes in anything being done."

This year, amid multiple petitions filed by environmental groups, the DC Circuit Court overturned one FERC certificate over greenhouse gas considerations, and the 4th US Circuit Court of Appeals vacated several federal resource agency permits for the Atlantic Coast Pipeline and Mountain Valley Pipeline projects.

"It is incumbent upon us to make sure our processes are as strong and robust" as possible, LaFleur said.

LaFleur also warned operators about environmental and safety compliance, noting that high-profile incidents can immediately affect the whole industry and quickly surface in FERC dockets for other projects.

It is important that conditions attached to FERC certificates orders are "scrupulously observed," she said. A project may otherwise be slowed or referred to enforcement, she added. FERC last year suspended work on horizontal directional drilling for the Rover Pipeline project after a major release of drilling fluids into Ohio wetlands. The agency also held out in-service authorization for key Rover laterals for several months while staff sought further progress on restoration and stabilization in areas that had suffered slope failures.

<u>— Maya Weber</u>

## Experts doubt feasibility of California's carbon-free power goal

- 'No new gas plants': CPUC
- 100% goal set for 2045

California's goal of 100% reliance on renewable energy by 2045 has put the state on a perilous path to an uncertain future as multiple industry experts doubt the ability to maintain electric reliability on a fully greenhouse gas-free energy system.

When California lawmakers passed Senate Bill 100 in September, it called for zero emissions from power sources by 2045. It also mandates that renewables must meet 60% of the daily power demand by 2030. The slate of renewables set to fully replace gas and nuclear includes wind, solar, biomass, geothermal and sub-30 MW hydro power.

"Implied in SB 100, California will abandon its natural gas-fired generation assets, which represent 50% of installed capacity, 38.9 GWs of a total 77.3 GWs," said Laird Dyer, an energy consultant, during the LDC Rockies and West gas forum in Las Angeles last week.

#### Gas-free

While the Midwest and southern US have added much more gasfired power in recent years, California regulators say there will be no new gas-fired capacity ever added to the state's grid.

"There will be no new gas plants," said Rachel Patterson, chief of staff with the California Public Utilities Commission. "While there is a role for natural gas plants today and through 2030 in California, there is a new goal to eventually reach a fully carbon-free electric grid. The role of gas plants is still important today, but it will grow lower and more specialized over time."

There will likely be no need for any gas-fired power at all in the state by 2045 to 2050, she added.

"It's going to be very difficult to achieve this, especially since they plan on totally going away from gas," said John Armstrong, vice president of global environmental products for BP Energy.

## CAISO POWER SOURCES



Source: S&P Global Platts Analytics

Although gas-fired power generation use has diminished within the California Independent System Operator footprint over the past five years due to increased renewable energy, it is still the state's largest source of electricity, according to data from S&P Global Platts Analytics. So far in 2018, gas-fired power has accounted for 37% of the daily load. In 2012 it represented about 60% of all power generated.

California also plans to shutter its two nuclear power plants, which account for about 11% of the state's daily power generation. This means the state must replace 48% of current electricity needs with renewable sources in order to meet the 2045 goal.

Also, although gas-fired power makes up, on average, about one-third of all generation, it takes up a much greater share during intermittent demand spikes. Also, it's unknown how much such a drastic redrawing of the state's portfolio would increase consumer costs for electricity. Current power rates already drastically exceed the national average.

"They plan on replacing basically two-thirds of all current energy capacity and replacing it with something else," Dyer said. "Does that sound cheap to you? The answer is 'no'."

However, if energy battery storage becomes both affordable and efficient on a large scale, it could make the state's GHG-free electricity goals more attainable.

"I honestly think it will be sooner than we think," said Jim Duncan, ConocoPhillips director of market research. "They are getting smarter at developing it. They just haven't put the right metals together in the right proportions because we can't currently store the electron density necessary to support commercial involvement. Once it is developed, electricity will become fully commoditized."

<u>— Brandon Evans</u>

## New pipeline capacity lifts Pennsylvania gas production in August

- Pipeline constraints had suppressed prices
- EQT grew production 7% in August

Pennsylvania data showed drillers in the state produced 18% more natural gas in August than they did in the same month in 2017, but it also showed slow, single-digit production growth for all of 2018.

Production grew 1.7% between July and August of this year, according to data from the Department of Environmental Protection released Monday. Production grew less than 5% year to date.

Until this summer, Marcellus Shale drillers had little motivation to produce more gas. Gas prices remained below \$3/MMBtu on the national market and were about half that in local markets, where surplus gas was dumped because of a lack of pipeline capacity.

But with Energy Transfer Partners' new Rover Pipeline system in Ohio pulling gas off legacy lines in southwest Pennsylvania and Williams' new Atlantic Sunrise pipeline expansion providing takeaway in the northeast quarter, the state's largest producers are cranking up production to fill the empty space.

#### **Five counties**

What did not change in a year was the lock that five counties have on the state's total production: 74% of Pennsylvania's shale gas comes from Susquehanna, Bradford and Lycoming counties in the northeast part of the state, and Washington and Greene counties in the southwest. Susquehanna, Bradford, Lycoming and Wyoming counties produce more shale gas than all of Ohio. Susquehanna County alone produced just over 4 Bcf/d in August. The state's top five producers accounted for 66% of the state's total gas production.

EQT, the nation's largest gas producer by volume and the dominant driller in Greene and Washington counties south of Pittsburgh, increased production 7% month on month in August. Northeast Pennsylvania giant Cabot Oil & Gas, with contracts for 1 Bcf/d of Atlantic Sunrise's 1.7 Bcf/d of incremental gas transportation capacity, increased production 10% in August ahead of an expected September pipeline opening.

#### Atlantic Sunrise

However, heavy rains delayed Atlantic Sunrise's opening until October 6. Gas volumes immediately spiked when Williams opened the valves on October 6. Atlantic Sunrise moves Marcellus gas out of Susquehanna and other northeast Pennsylvania counties to Mid-Atlantic markets and deep into the Southeast along the Transcontinental Gas Pipe Line mainline. The system brings gas to the Washington metro area and Dominion Energy's Cove Point LNG natural gas export terminal in Maryland.

The state's three other leading gas producers saw their production volumes fall slightly in August compared with July. On a year-on-year basis, both Range Resources and Southwestern Energy continued to book 20%-plus volume growth, but compared with July, gas production at both slipped. Both companies have said they are increasing the amount of NGLs, such as ethane and

EQT Corp.	Aug-18 (Bcf/d) 3.15	<b>YOY change</b> (%) 54.4	MOM change (%) 7.1
Cabot Oil & Gas Corp.	2.40	20.6	10.1
Chesapeake Energy Corp.	2.06	8.4	-3.7
Range Resources Corp.	1.80	22.4	-3.7
Southwestern Energy Co.	1.65	25.0	-0.6
Pennsylvania	16.81	18.0	1.7

## TOP PA. GAS PRODUCERS, AUGUST 2018

Data as of October 15, 2018

Note: EQT August 2017 and 2018 is pro forma Nov. 9, 2017, merger with Rice Energy Source: Pennsylvania Department of Environmental Protection

propane, they are extracting from the gas production of their southwestern Pennsylvania wells at higher oil-linked prices, an effort that slightly reduces gas volumes.

Chesapeake Energy has made it clear that its corporate future is in shale oil in the state of Wyoming's Powder River Basin, and it intends to milk northeast Pennsylvania for cash to drill wells in the hot new play. Several of Chesapeake's Appalachian rigs are still in the Utica Shale in Ohio, finishing work on leases that are being sold to private equitybacked startup Encino Acquisition Partners. Chesapeake's production in northeast Pennsylvania's Marcellus Shale slipped nearly 4% in August from July.

- <u>Bill Holland, S&P Global Market Intelligence</u>

## NGL market strength at Mont Belvieu lifts Devon Energy's Q3 production in US

- Net output for July-September estimated at 418,000 Boe/d
- Ethane prices supported by infrastructure pinch

Devon Energy said Tuesday that strong natural gas liquids yields and recoveries thanks to premium pricing in the Mont Belvieu, Texas, market led to a boost of its overall third-quarter production in the US above expectations.

The Oklahoma City-based company, which is scheduled to release financial results for the July-September quarter on November 6, has been seeking to leverage a leaner portfolio and greater cost efficiencies to boost profits in the years ahead.

In the face of challenges it has had rebounding since the industry-wide downturn that started in 2014, Devon has been cutting costs and focusing on core production, while also selling assets. The streamlining efforts caused it to slip one spot to No. 11 among US gas producers by output in the latest rankings by the Natural Gas Supply Association.

In a statement, Devon said it estimates that its net production in the US was approximately 418,000 Boe/d during the third quarter. During the quarter, Devon sold minor, non-core assets with an associated production impact of approximately 2,000 Boe/d.

The net figure, adjusted for the asset sales, slightly exceeds the upper bound of the company's guidance range for the quarter of 398,000 to 417,000 Boe/day.

## **NGL PRICES - MONT BELVIEU**





Devon cited NGL strength for the overall production gains. It said US oil production in the third quarter was in line with the midpoint of its previous guidance. Devon's upstream capital spending was \$523 million in the quarter, 9% below the midpoint of the company's guidance range.

NGL prices at Mont Belvieu rose steadily through the summer and into the third quarter, S&P Global Platts Analytics data shows. Propane, butanes, and natural gasoline tracked the crude complex higher while ethane has found strength as a result of infrastructure constraints and new steam cracker start-ups, the data shows.

"Midstream companies continued to address infrastructure bottlenecks in third quarter 2018 with the announcement of new or expanded natural gas processing plants, NGL fractionators, product pipelines, and export terminals," Jefferies analyst Christopher Sighinolfi said in a note to clients Tuesday.

Sighinolfi said wildcards going forward include the potential that US economic strength will create inflationary pressures on labor and material costs, and that the Federal Reserve's interest rate hikes will lead to rising debt financing costs.

"Looking ahead, we believe investors will remain focused on project execution, pricing spreads, financing needs, infrastructure constraints, corporate governance, and cost inflation," he said. — <u>Harry Weber and Carolyn Bergner</u>

## Dominion gets green light for limited work in Virginia on Atlantic Coast Pipeline

- Progress cited by operator amid effort to complete 1.5 Bcf/d project
- Opponents have been fighting Northeast gas takeaway efforts

The US Federal Energy Regulatory Commission on Tuesday gave Dominion Energy the go-ahead to begin some limited work in Virginia tied to its Atlantic Coast Pipeline natural gas project.

A spokesman for the operator, Aaron Ruby, described the limited notice to proceed as "progress" as the company seeks to complete the 1.5 Bcf/d project that is among several pieces of new infrastructure that are designed to link Appalachian Basin supplies with the mid-Atlantic region and the Southeast.



### ACP AND SUPPLY HEADER PROJECTS

Source: Atlantic Coast Pipeline

## **PIPELINE MAINTENANCE**

Start dateEnd datePipeline10-Mar31-DecSOCAL

е

Description SOCAL Southern Zone restricted by 532 MMcf/d until further notice

Together with EQT Midstream Partners' 2 Bcf/d Mountain Valley Pipeline, Williams' 1.7 Bcf/d Atlantic Sunrise expansion and TransCanada's 1.3 Bcf/d WB XPress, ACP would continue a trend of pushing more Northeast gas downstream to markets where demand growth is expected over the next five years.

Ruby said that construction on ACP is "moving full steam ahead" in West Virginia and North Carolina, with a remaining approval still pending in Virginia. Dominion continues to target a late 2019 startup.

In a letter to the operator, FERC said Dominion could begin nonmechanized tree felling at the ACP Buckingham Compressor Station and Woods Corner Metering and Regulating in Buckingham County, Virginia.

The project, like several of the others in the Northeast, has faced extensive opposition from environmental and conservation groups.

Last month, a federal district court dismissed for lack of jurisdiction an eminent domain challenge by opponents that sought to block ACP and MVP. More than 50 landowners with property in the path of the projects had joined with the nonprofits Bold Alliance, Bold Education Fund and Friends of Nelson in the complaint.

The litigation targeted the way eminent domain use has evolved in a deregulated gas market to take private property for pipeline development.

In August, Virginia officials opted to leave in place water quality certifications for the two projects, following a lengthy hearing at which opponents voiced their concerns. At the time, analysts said the decision lifted a cloud over the projects that, had it gone the other way, could have caused further delays.

— <u>Harry Weber</u>

## NATURAL GAS FUTURES

## NYMEX Nov gas settles at \$3.239/MMBtu on offsetting temperature forecasts

The NYMEX November natural gas futures contract fluctuated and settled at \$3.239/MMBtu Tuesday, down 0.3 cent on the day, likely due to an offsetting temperature forecast.

The front-month contract traded between \$3.210/MMBtu and \$3.311/MMBtu.

The US National Weather Service calls for a likelihood of belowaverage temperatures across much of the Midwest, Northeast and Southern regions, while warmer-than-average temperatures are forecast in the Rockies, Northwest and Southwest regions, which is driving up both gas-fired power burn and heating demand.

Power burn is set to gain 300 MMcf day on day and reach 25.9 Bcf, while residential and commercial demand is projected to gain 400 MMcf day on day and sit at 24.3 Bcf Tuesday, S&P Global Platts Analytics data showed. On the same day a year ago, both power burn and heating demand were lower at 24.8 Bcf and 19 Bcf, respectively.

Total US demand is estimated to increase, likely as a result of gains in both cooling and heating demand, reaching 82.9 Bcf Tuesday, up 1.3 Bcf day on day, according to Platts Analytics.

Over the next two weeks, demand is estimated to decline slightly and average 80 Bcf/d as power burn and residential and commercial demand weaken.

Total US dry gas production is set to drop 600 MMcf day on day to 82.9 Bcf Tuesday, according to Platts Analytics.

Much of the drop is due to a 500-MMcf day-on-day decline in Northeast production after hitting a record high of 30.6 Bcf/d Monday. Southeast and Gulf production remained flat on the day following Hurricane Michael, offset by strengthening Mississippi offshore output, which increased by 400 MMcf/d over the past five days.

Platts Analytics estimates production will rise over the next two weeks and average 83.1 Bcf/d as shoulder season maintenance projects wind down.

Veda Chowdhury

## MONTH-AHEAD TEMPERATURE FORECAST MAP

November departure from average



Source: S&P Global Platts, Custom Weather

#### Settlement High Low +/-Volume Nov 2018 3.239 3.311 3.210 -0.003 59330 3.301 Dec 2018 3.377 3.278 -0.009 20715 Jan 2019 3.374 3.454 -0.015 3.355 11980 Feb 2019 3.296 3.356 3.277 -0.0052681 Mar 2019 3114 3 150 3 0 9 2 0.005 5194 Aor 2019 2.755 2.769 2.734 0.001 4549 May 2019 2,709 2.715 2 689 0.002 592 Jun 2019 2.735 2.737 2.715 0.002 186 Jul 2019 2.770 2.771 2.750 0.003 332 Aug 2019 2.773 2.774 2.751 0.004 726 Sep 2019 2.754 2 7 5 4 2.733 0.003 112 Oct 2019 2.772 2.774 2.753 0.002 1135 Nov 2019 2.807 -0.001 2.824 2.828 648 Dec 2019 2.959 2.961 2.941 0.000 434 Jan 2020 3.050 3.05 3.033 -0.001 423 Feb 2020 2.979 2.979 2.960 140 -0.002 2.818 Mar 2020 2.831 2.836 -0.006 169 Apr 2020 2.557 2.570 2.548 85 -0.005 May 2020 2.521 2.525 2.514 -0.005 162 2.542 Jun 2020 2.550 2.559 -0.005 136 105 Jul 2020 2.579 2.588 2.564 -0.005 Aug 2020 2.583 2.583 2.575 -0.005 82 Sep 2020 2.568 2.572 2.565 -0.005 109 Oct 2020 2.587 2.589 2.578 -0.004 109 Nov 2020 2.642 2.660 2.633 -0.004 101 Dec 2020 2.778 2.778 2.778 -0.004 0 Jan 2021 2.886 2.886 2.880 -0.004 Feb 2021 2.836 2.836 2.832 -0.006 2 Mar 2021 2.720 2.720 2.710 -0.006 3 Apr 202 2.485 2.486 2.482 -0.011 3 2.456 2.457 2.456 May 2021 -0.011 Jun 2021 2.486 2.487 2.486 -0.011 n Jul 2021 2.519 2.520 2.519 -0.011 2.531 2.531 2.531 -0.011 Aug 202 Sep 2021 2.523 2.486 2.482 -0.011 Oct 2021 2.543 2.543 2.543 -0.011

NYMEX HENRY HUB GAS FUTURES CONTRACT, OCT 16

Contract data for Monday

Volume of contracts traded: 362,497

Front-months open interest:

Nov, 149,220; Dec, 201,699; Jan, 240.657

Total open interest: 1,626,117

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 spot gas prices see steady movement in trading Tuesday

US Northeast natural gas spot prices saw relatively steady movement in trading for Wednesday flows, with demand in the region not expected to see a large movement until Thursday.

In production areas Dominion South point saw sideways movement on the day, remaining at \$2.975/MMBtu, and Transco Leidy Line experiencing just a 1.5-cent decline for Wednesday flows.

Since the activation of Atlantic Sunrise October 6, Transco Leidy-Line has continued to see its premium against Dominion South Point remain elevated, averaging around plus 9 cents/MMBtu since Atlantic Sunrise came into service, up from the 1 cent/MMBtu premium averaged the 30 days before pipeline activation.

Demand areas in the Northeast also saw subtle movement in most locations, with Iroquois Zone-2 notching 1.5 cents upward day on day to \$3.405/MMBtu, a premium against the Henry Hub spot price of plus 12.5 cents/MMBtu, as the Louisiana benchmark ticked 1.5 cents up on the day to \$3.27/MMBtu.

Though pricing movements were not large in trading Tuesday, Wednesday could be a different story, as demand is forecast to jump Thursday.

S&P Global Platts Analytics projects total Northeast demand to be 21.1 Bcf Thursday, which would be over a 3-Bcf increase from Wednesday, as Res/Comm demand is expected to reach 11.7 Bcf.

The jump in demand could be due in large part to an expected drop in temperatures in demand areas in the Northeast, with the National Weather Service forecasting the high temperature in New York City to be just 50 degrees Fahrenheit Thursday.

Looking ahead, colder weather could persist, as both six- to 10-day and eight- to 14-day weather outlooks from the weather service call for a high likelihood of cooler-than-average weather in the Northeast region, which could spur heating demand as the market heads towards the end of October.

Platts Analytics projects total Northeast demand to average 18.2 Bcf/d over the next eight to 14 days, which would pace well above the 16.4 Bcf/d averaged over the same time in 2017.

<u>— Eric Janssen</u>

## NORTHEAST FORWARD BASIS



	16-0ct	15-0ct	Chg	MTD Avg.	MTD last year	Chg	16-0ct	15-0ct	Chg
Henry Hub	3.27	3.26	0.02	3.25	2.90	+0.35	3.24	3.24	0.00
Northeast region									
Algonquin CG	0.16	0.04	0.12	-0.10	-0.22	+0.13	0.58	0.63	-0.05
Iroquois Zn2	0.14	0.14	0.00	0.03	-0.09	+0.12	0.40	0.40	0.00
Tenn Zn6 Dlvd	0.29	0.22	0.08	0.08	-0.35	+0.43	0.58	0.63	-0.05
Transco Zn 6 NY	-0.17	-0.08	-0.09	-0.40	-0.71	+0.31	0.05	0.08	-0.03
Transco Zn5 Dlvd	0.08	0.07	0.01	0.04	0.00	+0.04	0.16	0.19	-0.03
Transco Zn6 Non-NY	-0.15	-0.11	-0.05	-0.41	-0.68	+0.27	-0.05	-0.02	-0.03
TX Eastern M-3	-0.18	-0.12	-0.07	-0.77	-1.81	+1.04	-0.16	-0.13	-0.03
Appalachia									
Col Gas Appal	-0.17	-0.19	0.02	-0.31	-0.27	-0.04	-0.26	-0.26	0.00
Dominion N Pt	-0.26	-0.23	-0.03	-1.00	-2.24	+1.24	-0.52	-0.49	-0.03
Dominion S Pt	-0.30	-0.28	-0.02	-1.01	-2.23	+1.22	-0.37	-0.34	-0.03
Lebanon Hub	-0.06	-0.12	0.06	-0.20	-2.20	+2.00	-0.13	-0.14	0.01
Millennium East Receipts	-0.27	-0.24	-0.04	-0.96	-2.21	+1.25	-0.40	-0.37	-0.03
Tenn Zn4-200 Leg	-0.11	-0.10	-0.01	-0.25	-0.98	+0.72	-0.18	-0.17	-0.01
Tennessee zone 4-300 leg	-0.27	-0.22	-0.05	-1.02	-2.24	+1.22	-0.41	-0.39	-0.03
Texas Eastern M-2 receipts	-0.29	-0.25	-0.05	-1.02	-2.25	+1.23	-0.38	-0.36	-0.02
Transco Leidy Line receipts	-0.18	-0.15	-0.03	-0.95	-2.18	+1.23	-0.24	-0.21	-0.03
Other locations									
Dracut MA							0.90	0.95	-0.06
Iroquois Receipts	0.16	0.13	0.03	0.02	-0.14	+0.16	0.08	0.08	0.00
Niagara	-0.07	-0.16	0.09	-0.18	-1.55	+1.38	0.05	0.04	0.01
Source: Platts M2M data									

NORTHEAST SPOT AND FORWARD BASIS (\$/MMBtu)

Spot basis

Prompt forward basis

## NORTHEAST DEMAND FORECAST



## **APPALACHIA FORWARD BASIS**

0.00 (\$/MMBtu) — Col Gas App — Dominion S — Tennessee Z4-300 — Transco Leidy -0.25 -0.50 -0.75 -1.00 Nov-18 May-19 Nov-19 May-20 Nov-20 May-21 Nov-21 Source: S&P Global Platts

## SOUTHEAST GAS MARKETS

## Slight gains continue in the Southeast as cooler weather arrives in Texas

Natural gas spot pricing locations in the Southeast continued gains of a few cents Tuesday while prices in Texas were mixed and moderate as cooler weather sets in across the state.

Houston Ship Channel prices continued to set record highs since trade last winter as it added another 1 cent in trading to \$3.60/MMBtu Tuesday.

NGPL Texok also had a moderate gain of 1.50 cents in trading, pricing at \$3.185/MMBtu. Also in the same region of Texas, the Katy hub was unchanged, trading at \$3.51/MMBtu.

S&P Global Platts Analytics data shows heating degree days in the South have increased to eight on Tuesday, from two HDDs averaged for the past seven days.

The HDD increase comes as Texas temperatures are 19 degrees Fahrenheit below normal Tuesday. Texas temperatures are forecast to be 15 degrees Fahrenheit below normal Wednesday. As a result, Texas residential and commercial demand has increased 661 MMcf/d Tuesday to 1.84 Bcf/d.

Platts Analytics data shows for the both of the Southeast and Texas regions that residential and commercial demand increased 41% Tuesday from 1.85 Bcf Monday to 2.61 Bcf.

Offshore Gulf of Mexico production has continued to show recovery following shut-ins caused by Hurricane Michael. Compared with last Wednesday, offshore production has recovered 635 MMcf/d with Tuesday's offshore production expected to reach 2.92 Bcf/d.

ANR Louisiana had one of the strongest day-on-day increases, increasing 7.50 cents to change hands at \$3.21/MMBtu.

Henry Hub had a 1.50-cent increase, outpaced by many other locations' gains, trading at \$3.27/MMBtu.

Most of the offshore production recovery has come from Mississippi's offshore production, increasing from 80 MMcf last Wednesday by 383 MMcf/d to 463 MMcf Tuesday, according to Platts Analytics data.

Despite the cool-off in Texas, Florida remained hot with temperatures forecast to be in the mid- to upper 90s Fahrenheit, according to the National Weather Service.

This provided continued price lift at Florida Gas Transmission's Zone 3 with a 4.50-cent gain, pricing it at \$3.405/MMBtu.

#### <u>– Jason Lord</u>

## SOUTHEAST FORWARD BASIS



			Spot	Dasis			Prompt	forward	Dasis
	16-0ct	15-0ct	Chg	MTD Avg.	MTD last year	Chg	16-0ct	15-0ct	Chg
Henry Hub	3.27	3.26	0.02	3.25	2.90	+0.35	3.24	3.24	0.00
Southeast									
ANR LA	-0.06	-0.12	0.06	-0.21	-0.14	-0.06	-0.16	-0.16	0.00
Col Gulf LA	-0.05	-0.05	-0.01	-0.09	-0.10	+0.01	-0.08	-0.08	0.00
Col Gulf-Mainline	-0.11	-0.13	0.02	-0.19	-0.14	-0.05	-0.17	-0.17	0.00
FL Gas Zn1	-0.03	-0.03	-0.01	-0.06	-0.05	-0.01	0.01	0.01	0.00
FL Gas Zn2	-0.02	-0.01	-0.01	-0.02	-0.06	+0.04	0.03	0.02	0.00
FL Gas Zn3	0.14	0.11	0.03	0.12	-0.01	+0.13	0.07	0.06	0.00
Florida CG	0.68	0.62	0.06	0.58	0.28	+0.30	0.36	0.35	0.00
SoNat LA	-0.05	-0.06	0.02	-0.04	-0.06	+0.02	-0.05	-0.06	0.00
Tenn LA 500 Leg	-0.04	-0.06	0.02	-0.04	-0.05	+0.02	-0.05	-0.06	0.00
Tenn LA 800 Leg	-0.05	-0.07	0.02	-0.09	-0.09	+0.00	-0.07	-0.07	0.00
TETCO-M1	0.00	-0.01		-0.18	-0.07	-0.10	-0.05	-0.06	0.00
Texas Gas Zn SL	-0.07	-0.11	0.04	-0.15	-0.13	-0.02	0.00	0.00	0.00
Texas Gas Zn1	-0.11	-0.11	0.00	-0.17	-0.15	-0.03	-0.16	-0.18	0.02
Transco Zn2	-0.01	-0.05	0.04	-0.05	-0.08	+0.03	-0.05	-0.05	0.00
Transco Zn3	0.00	-0.03		-0.04	-0.06	+0.02	-0.06	-0.06	0.00
Transco Zn4	0.01	-0.01	0.02	-0.01	-0.05	+0.04	-0.03	-0.03	0.00
Trunkline E LA	-0.03	-0.09	0.06	-0.10	-0.11	+0.01	-0.11	-0.11	0.00
Trunkline WLA	0.00	-0.05		-0.07	0.07	-0.14	-0.05	-0.05	0.00
Tx Eastern E LA	-0.06	-0.10	0.05	-0.17	-0.07	-0.10	-0.10	-0.11	0.01
TX Eastern W LA	-0.01	-0.03	0.02	-0.07	-0.06	-0.01	-0.09	-0.09	0.00
East & South Texas									
Agua Dulce	0.18	0.16	0.02	0.14			0.13	0.13	0.00
Carthage Hub	-0.10	-0.10	-0.01	-0.17	-0.10	-0.07	-0.16	-0.17	0.02
Houston Ship Channel	0.33	0.34	-0.01	0.19	0.04	+0.15	0.15	0.15	0.00
Katy	0.25	0.26	-0.02	0.14	0.03	+0.11	0.15	0.15	0.00
NGPL S TX	-0.05	0.07	-0.11	-0.02	-0.05	+0.03	0.13	0.13	0.00
NGPL Texok Zn	-0.09	-0.09	0.00	-0.16	-0.15	-0.01	-0.12	-0.13	0.01
Tenn Zn0	-0.08	-0.10	0.03	-0.16	-0.15	-0.01	-0.09	-0.08	0.00
Transco Zn1	-0.03	-0.04	0.01	-0.04	-0.06	+0.01	-0.04	-0.04	0.00
TX Eastern E Tx	-0.04	-0.05	0.02	-0.12	-0.10	-0.02	0.02	0.03	-0.01
I X Eastern E I X	-0.04	-0.05							

SOUTHEAST SPOT AND FORWARD BASIS (\$/MMBtu)

Soot basis

Promot forward basis

Source: Platts M2M data

## SOUTHEAST & TEXAS DEMAND FORECAST



## EAST AND SOUTH TEXAS FORWARD BASIS

0.2 (\$/MMBtu) - Agua Dulce - Houston Ship Chnl - NGPL Texok Zn - TX Eastn S TX 0.1



## **CENTRAL GAS MARKETS**

## Strong heating demand lifts Central cash prices

US Central natural gas cash prices continued to rise Tuesday on strong residential and commercial demand as temperatures are forecast to be 10 degrees below normal.

Power burn is set to stand at 14.53 Bcf Wednesday, up 243 MMcf day on day, according to S&P Global Platts Analytics. Over the next seven days, heating demand is likely to decline a little and average 13.821 Bcf/d as a cold front starts to weaken, but still significantly higher than the 9.66 Bcf/d average for the same period last year.

US National Weather Service forecasts show temperatures between 38 and 48 degrees Fahrenheit in Chicago on Wednesday, compared with a five-year average range of 45 to 62 degrees for the same day. Similar temperatures are forecast for much of the Upper Midwest. Below-normal temperatures will likely hold as the week progresses, with the most recent forecast calling for a likelihood of below-normal temperatures for much of the region.

Nipsco gained 7.5 cents and settled at \$3.38/MMBtu, while PGLC rose 11 cents and settled at \$3.4/MMBtu. Similar gains were seen across all major indexes in the Upper Midwest except Michcon, where spot prices were down 5.5 cents on the day and averaged \$3.3/MMBtu.

In the Midcontinent production area, Panhandle rose 3.5 cents averaging \$3.025/MMBtu while ANR-SW 11 cents and settled at \$3.115/MMBtu.

Production is set to stay relatively flat day on day at 8.666 Bcf Tuesday, up 921 MMcf from the year-ago level. In October so far, production averaged 8.637 Bcf/d, up 13% from the year-ago level.

Inventories fell sharply in the past week, from 6.189 Bcf on October 9 to 2.849 Bcf Monday, driven by seasonably low temperatures resulting in weak injections. Storage is set to fall 1.144 Bcf day on day and stand at 1.705 Bcf Tuesday, according to Platts Analytics.

The futures market continued to strengthen Tuesday. The Chicago city-gates winter strip closed at Henry Hub plus 17.6 cents/MMBtu, up 0.8 cent on the day compared with the minus 3 cents/MMBtu average last winter, likely on storage concerns.

The MichCon city-gates winter strip closed at Henry Hub minus 4 cents/MMBtu, up 0.08 cent.

<u>Veda Chowdhury</u>

	16-0ct	15-0ct	Chg	MTD Avg.	MTD last year	Chg	16-0ct	15-0ct	Chg
Henry Hub	3.27	3.26	0.02	3.25	2.90	+0.35	3.24	3.24	0.00
Midwest/East Canada									
ANR ML 7	0.11	0.03	0.08	-0.04	-0.19	+0.16	0.07	0.03	0.04
Chicago CG	0.12	0.04	0.09	-0.09	-0.18	+0.09	0.07	0.04	0.03
Consumers Energy CG	0.07	0.07	-0.01	-0.04	-0.08	+0.04	-0.02	-0.02	0.00
Dawn Ontario	0.12	0.04	0.08	-0.03	-0.13	+0.11	0.09	0.05	0.04
Mich Con CG	0.03	-0.01	0.04	-0.05	-0.15	+0.10	-0.02	-0.02	0.00
Northern Ventura	0.10	0.03	0.07	-0.11	-0.26	+0.15	0.11	0.08	0.03
Viking-Emerson	0.08	0.07	0.02	-0.13	-0.67	+0.54	-0.05	-0.10	0.05
Midcontinent									
ANR OK	-0.16	-0.25	0.10	-0.41	-0.40	-0.01	-0.46	-0.46	0.00
Enable Gas East	-0.21	-0.20	-0.01	-0.27	-0.22	-0.04	-0.22	-0.24	0.01
NGPL Midcontinent	-0.33	-0.37	0.04	-0.54	-0.33	-0.22	-0.57	-0.59	0.02
Northern NG Demarc	0.11	0.03	0.08	-0.13	-0.26	+0.13	0.04	0.02	0.03
Oneok OK	-1.10	-1.18	0.08	-1.32	-0.49	-0.83	-1.32	-1.32	0.00
Panhandle TX-OK	-0.25	-0.27	0.02	-0.48	-0.41	-0.07	-0.49	-0.49	0.00
Southern Star TxOkKs	-0.37	-0.35	-0.03	-0.52	-0.42	-0.09	-0.46	-0.46	0.00
Source: Platts M2M data									

Spot basis

Prompt forward basis

CENTRAL SPOT AND FORWARD BASIS (\$/MMBtu)

## MIDWEST & MIDCONTINENT DEMAND FORECAST



## **MIDWEST FORWARD BASIS**



## MIDCONTINENT FORWARD BASIS

(\$/MMBtu) - NGPL Midcon - Northern NG Demarc - Panhandle TX-OK - ANR OK 0.5



## WEST GAS MARKETS

## Westcoast Station 2 remains in negative territory for second day

With repair work on a damaged pipeline progressing slowly, gas was stranded in Canadian production areas, pushing some prices into negative territory Tuesday.

At Westcoast Station 2, gas was changing hands at minus 13.5 Canadian cents/Gj. That price reflected an increase of 5 Canadian cents.

Tuesday was the second straight day Westcoast Station 2 was trading at negative prices.

Another Canadian pricing point saw a sharp decline. AECO fell 58 Canadian cents to trade at 62 Canadian cents.

Gas flows in Western Canada have been constricted since October 9, when a rupture on Westcoast's 36-inch-diameter line halted flows on the company's T system. Westcoast brought a parallel 30-inch pipeline back on line two days later, allowing flows to resume but at a reduced pace.

According to a Westcoast release, there is no timetable for the repair work on the 36-inch line to be completed. The company was in the process of building a temporary access road to the work site.

That uncertainty was probably a factor in falling futures prices, too.

At AECO, the front-month contract was down 2 cents to Henry Hub basis minus \$1.55/MMBtu.

With the flows into the US constricted, prices in the West were getting a boost from the decline in supply.

Gas moving into the West from Canada was forecast by S&P Global Platts Analytics at 2.551 Bcf Tuesday, down 73 MMcf from Monday's level of 2.624 Bcf.

Tuesday's flows were also at a four-day low and lagged 412 MMcf behind the October-to-date average of 2.963 Bcf/d.

Overall supply in the West stood at 12.089 Bcf Tuesday, 145 MMcf below Monday levels.

The slide in supply comes at a time when demand is ticking upward. Tuesday's consumption was estimated at 12.395 Bcf, 273 MMcf or 2% above Monday's need of 12.122 Bcf.

If the demand forecast holds true, it would mark a five-day high for consumption.

Prices across the region were edging upward, with Gas

Transmission Northwest Kingsgate up 9 cents to \$3.12/MMBtu and the Stanfield location rising 6.5 cents to \$3.15/MMBtu.

— John DeLapp

## WEST SUPPLY LOCATIONS FORWARD BASIS



			Prompt	forward	basis				
	16-0ct	15-0ct	Chg	MTD Avg.	MTD last yea	r Chg	16-0ct	15-0ct	Chg
Henry Hub	3.27	3.26	0.02	3.25	2.90	+0.35	3.24	3.24	0.00
Northwest									
GTN Kingsgate	-0.15	-0.23	0.08	-0.48	-0.88	+0.40	-0.47	-0.46	-0.01
Northwest Sumas	1.36	1.69	-0.33	0.44	-0.42	+0.86	1.99	1.99	0.00
Northwest Stanfield	-0.12	-0.17	0.05	-0.37	-0.42	+0.05	-0.29	-0.28	-0.01
Rockies									
Cheyenne Hub	-0.18	-0.24	0.06	-0.43	-0.43	+0.00	-0.54	-0.54	0.00
CIG Rockies	-0.20	-0.24	0.04	-0.45	-0.44	-0.01	-0.54	-0.54	0.00
Kern River Opal	-0.17	-0.21	0.04	-0.42	-0.39	-0.02	-0.33	-0.33	0.00
NW WY Pool	-0.17	-0.19	0.02	-0.40	-0.43	+0.03	-0.33	-0.33	0.00
Questar Rky	-0.24	-0.31	0.07	-0.49	-0.43	-0.05	-0.37	-0.37	0.00
Southwest									
El Paso Permian	-0.96	-1.10	0.15	-1.64	-0.53	-1.11	-1.59	-1.58	-0.01
El Paso San Juan	-0.66	-0.77	0.11	-1.16	-0.52	-0.64	-0.83	-0.85	0.02
Kern River Dlvd	0.04	0.03	0.01	-0.22	-0.28	+0.05	-0.04	-0.05	0.01
PG&E CG	0.48	0.43	0.05	0.29	0.21	+0.08	0.43	0.42	0.01
PG&E Malin	-0.09	-0.13	0.05	-0.37	-0.34	-0.03	-0.24	-0.23	-0.01
PG&E South	-0.58	-0.73	0.15	-1.00	-0.41	-0.59	-0.75	-0.77	0.02
SoCal Gas	-0.08	-0.09	0.02	-0.45	-0.30	-0.16	-0.04	-0.06	0.01
SoCal Gas Citygate	1.64	1.07	0.58	0.55	0.14	+0.41	1.84	1.61	0.23
Transwestern Permian	-0.93	-1.11	0.18	-1.66	-0.53	-1.14	-1.50	-1.49	-0.01
Waha	-0.95	-1.13	0.18	-1.65	-0.47	-1.18	-1.63	-1.63	0.00
West Canada									
AECO-C	-2.65	-2.06	-0.60	-1.33	-2.37	+1.04	-1.54	-1.53	-0.01

Source: Platts M2M data

## SOUTHWEST, NORTHWEST, ROCKIES DEMAND FORECAST



### WEST DEMAND LOCATIONS FORWARD BASIS



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

	15-0ct	16-0ct	Change	MTD avg.	MTD ləst yeər	Change
Supply regions – ne	t pipeline outflo	ws				
Texas	9,854	9,727	127	10,242	8,546	1,696
West Canada	8,310	7,764	546	8,353	8,236	117
Rockies	6,180	6,479	-299	6,521	6,631	-110
Midcontinent	3,927	3,857	70	3,809	3,229	580
Northeast	12,105	11,044	1,061	11,170	7,148	4,022
Demand regions – n	et pipeline inflo	ws				
Southwest	3,971	3,934	-37	4,033	4,267	-234
Southeast	11,394	10,646	-748	11,599	8,974	2,625
Northwest	1,750	1,724	-26	1,881	1,793	88
Midwest	14,735	13,764	-971	14,002	11,464	2,538
East Canada	3,682	3,845	163	3,616	2,983	633

\* 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**



## S&P Global

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## **GAS DAILY**

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Gas Daily Questions? Email: NAGas&Power@spqlobal.com

Managers North America Gas and Power Content Rocco Canonica, +1-720-264-6626 Matthew Eversman, +1-713-655-2238 Joe Fisher, +1-713-658-3290 Chris Newkumet, +1-202-383-2141 Anne Swedberg, +1-720-264-6728

#### Editors

Jared Anderson, +1-212-904-2002 Brandon Evans, +1-720-264-6671 Jim Magill, +1-713-658-3229 Jasmin Melvin, +1-202-383-2135 J. Robinson, +1-720-264-6657 Daniel Rodriguez + 52-55-1037-5276 Mark Watson, +1-713-658-3257 Maya Weber, +1-713-658-3257 Maya Weber, +1-202-383-2244 Kate Winston, +1-202-383-2012

#### Spot Market Editors

John DeLapp, +1-713-655-2279 Eric Janssen, +1-713-655-2261 Jason Lord, +1-713-658-3271 Samer Mosis, +1-713-655-2271 Ryan Ouwerkerk, +1-713-655-2202

Advertising Tel: +1-720-264-6618 Eric Brooks Richard Frey Grant Gunter John Hilfiker Luke Jackson Tyler Jubert Mason McLean John McManus Jack Winters Ross Wyeno Director, Americas Generating Fuels and Electric Power Pricing Mark Callahan

Analysts

Director, Americas Energy News James O'Connell

Global Director of Generating Fuels Simon Thorne

**Platts President** Martin Fraenkel

#### Manager, Advertisement Sales Bob Botelho

To reach Platts: E-mail:support@platts.com; North America: Tel:800-PLATTS-8; Latin America: Tel:+54-11-4121-4810; Europe & Middle East: Tel:+44-20-7176-6111; Asia Pacific: Tel:+65-6530-6430

## GAS DAILY SUPPLEMENTS

To access the latest issue of the Gas Daily supplements, click below. <u>Gas Daily Market Fundamentals</u> (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, OCT 16

	\$/MMBtu	+/-
Gulf Coast ethane fractionation spread	2.453	-0.649
Gulf Coast E/P mix fractionation spread	1.250	-0.874
E/P mix Midcontinent to Rockies fractionation spread	-0.965	0.100
E/P mix Midcontinent fractionation spread	-0.840	0.095
National raw NGL basket price	9.527	-0.128
National composite fractionation spread	5.927	-0.138

The methodology for these assessments is available at: www.platts.com/IM.Platts.Content/MethodologyReferences/MethodologySpecs/shale-value-chain.pdf

### PLATTS OIL PRICES, OCT 16

	(\$/b)	(\$/MMBtu)	
Gulf Coast spot			
1% Resid (1)	74.43-74.45	11.91	
HSFO (1)	70.68-70.70	11.31	
Crude spot			
WTI (Nov) (2)	71.93-71.95	12.40	
New York spot			
No.2 (1)	92.91-92.95	14.87	
0.3% Resid LP (3)	86.12-86.14	13.78	
0.3% Resid HP (3)	86.12-86.14	13.78	
0.7% Resid (3)	75.37-75.39	12.06	
1% Resid (3)	71.82-71.84	11.49	

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

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## SUBSCRIBER NOTES

#### Platts proposes to include basis trades in Florida city-gates daily indices

Following a period of market consultation, S&P Global Platts proposes to include basis trades in the preliminary and final daily indices for the Platts location Florida city-gates. The only basis trades that would be included would be trades priced as a differential to Florida Gas, zone 3. The basis trades would be converted to fixed price trades by adding the price differential to the Florida Gas, zone 3 index price. As defined by Platts natural gas methodology, Florida city-gates reflects deliveries off of Florida Gas Transmission to all city-gates in the Florida market, stretching from the Florida Panhandle to southern Florida.

## Please send any comments to the listings above to

americasgaspricing@spglobal.com and pricegroup@spglobal.com by October 19. 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 seeks feedback on El Paso, Permian natural gas methodology

S&P Global Platts is seeking market participation in its review of methodology for the El Paso, Permian daily and monthly natural gas indices. Due to constraints in the region, Platts has observed price divergence in the pooling areas that make up the El Paso, Permian index. El Paso, Plains pool has traded at a notable premium to the El Paso, Waha and El Paso, Keystone pools.

Please send any comments to <u>AmericasGasPricing@spglobal.com</u> and <u>pricegroup@spglobal.com</u>.

## Platts seeks feedback on Northwest, S. of Green River natural gas methodology

S&P Global Platts is seeking market participation in its review of the methodology for the Northwest, S. of Green River daily natural gas index. At Northwest, S. of Green River, Platts has observed that Ignacio Plant, which is included in the existing index, is trading at a steady discount to other transactions done at other locations in the index, notably Northwest, Rocky Mountain Pool.

Please send any comments to <u>AmericasGasPricing@spglobal.com</u> and <u>pricegroup@spglobal.com</u>.

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

Trade date: 16-Oct							0	Powered by	ıce	
Flow date(s): 17-Oct			Daily	Absolute	Absolute	Common	Common			
Location	Symbol	Index	Change	Low	High	Low	High	Volume	Deals	
Northeast										
ICE Algonquin CG (Excl. J and G Lateral deliveries)	JAAAA21	3.420	+0.120	3.400	3.450	3.410	3.435	39	12	
ICE Algonquin Citygates (Excl. J Lateral deliveries)	JAAAB21	_		_	_	_	_			
ICE Algonquin, Millennium-Ramapo receipts	JAAHF00			_		_	_			
ICE Algonquin, TGP-Mahwah receipts	JAAHG00			_			_			
ICE Dominion Energy, Cove Point, on system delivery	JAAHM21									
ICE Iroquois, zone 1 (delivered excl. Waddington) ICE Iroquois, zone 2 (non-Hunts Point/Eastchester Lateral)	JAABS21						2 415			
ICE Iroquois, zone 2 Hunts Point/Eastchester Lateral	JAABT21 JAABU21	3.390	-0.005	3.360	3.450	3.370	3.415	55	16	
ICE Maritimes, Hubline and Beverly Salem	JAAB021 JAACB21									
ICE Maritimes and Northeast Pipeline US (buyer's choice delivered)	JAACB21 JAACC21								_	
ICE PNGTS (buyer's choice delivered)	JAACC21 JAADH21	4.650	+0.150	4.650	4.650	4.650	4.650	4	2	
ICE Stagecoach Marcellus Hub	JAADH21 JAAEN21	3.010	+0.715	3.000	3.020	3.005	3.015	70	10	
ICE Tennessee, zone 5, 200 Line, delivered downstream of station 2										
ICE Texas Eastern, Manhattan Lateral (delivered)	JAAEW21			_	_	_	_			
ICE Transco, zone 6 (non-NY north mainline)	JAAEZ21	_			_					
ICE Transco, zone 6 station 210 Pool	JAAE221 JAAFA21	3.115	-0.035	3.070	3.130	3.100	3.130	168	44	
Appalachia										
ICE Clarington Tennessee	JAAFI21			_		_	_			
ICE Columbia Gas, A04 Pool	JAAAU21			_			_			
ICE Columbia Gas, A06 Pool	JAAAV21								_	
ICE Columbia Gas, Segmentation Pool ICE Millennium Pipeline (buyers' choice delivered)	JAAAW21	_		_		_	_	_	_	
	JAAHA21	3.165	.0.010	2.005	3.180	2145	3.180	323	76	
ICE Tennessee, zone 4, station 219 Pool ICE Texas Eastern, M2 Zone (delivered)	JAAET21	3.105	+0.010	3.095	3.160	3.145	3.160			
	JAAEV21									
Midcontinent										
ICE Bennington, Oklahoma (buyers' choice)	JAAHK21									
ICE Enable Gas, Flex Pool only	JAABE21	3.065	+0.005	3.050	3.070	3.060	3.070	51	12	
ICE Enable Gas, North Pool only	JAABF21			_	_	_	_			
ICE Enable Gas, West (W1 or W2 as mutually agreed)	JAABI21			_		_				
ICE Enable Gas, West Pool	JAABJ21	-			-	-				
ICE NGPL, Gulf Coast Mainline Pool	JAACI21	3.200	+0.025	3.170	3.220	3.190	3.215	130	20	
ICE NGPL, Mid-Continent Storage PIN	JAAC021							_		
ICE Northern Natural, Mid 13 - 16A Pool ICE Northern Natural, Mid 1-7 Pool	JAACW21									
ICE Northern Natural, Mid 8-12 Pool	JAACX21								_	
ICE Salt Plains Storage (buyers' choice)	JAACY21 JAADV21	_								
ICE Salt Plains Storage (in-ground transfer only)	JAADV21 JAADW21									
	JAADWZI									
Upper Midwest										
ICE Alliance, Chicago Exchange Hub	JAAAC21	3.365	+0.080	3.300	3.450	3.330	3.405	598	98	
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	JAABM21			_			_		_	
ICE Guardian, Guardian Hub ICE NGPL, Amarillo Pooling PIN	JAABN21	3 300	+0.095	3 280	3 3 2 0	3 200	3 310	62	12	
ICE NGPL, Amarillo Pooling PIN ICE NGPL, Amarillo Storage PIN	JAACG21 JAACH21	3.300	+0.085	3.280	3.320	3.290	3.310	62		
ICE NGPL, Amarino Storage Pin ICE NGPL, Iowa-Illinois GC Pool	JAACH21 JAAHN21									
ICE NGPL, Iowa-Illinois GC Pool	JAAHN21 JAAHO21								_	
ICE NGPL, Iowa-Illinois AM Pool	JAAH021 JAAHP21									
ICE NGPL, Iowa-Illinois AM Storage	JAAHP21 JAAHQ21									
ICE NGPL, Mid-American Citygate	JAARQ21 JAACN21						_		_	
ICE Northern Border, Harper Transfer Point	JAACN21 JAACS21	3.380	-0.030	3.380	3.380	3.380	3.380	20	2	
ICE Northern Border, Nicor Interconnect	JAACJ21 JAACT21		-0.050						_	
ICE Northern Border, Vector Interconnect	JAACU21	3.360	+0.090	3.330	3.390	3.345	3.375	138	18	
ICE Northern Border, Will County	JAACU21 JAACV21	3.350	+0.035	3.330	3.370	3.340	3.360	20	4	
ICE REX (East) delivered into ANR	3440421	3 205	+0.050	3 1 2 0	3 2 3 5	3 1 7 5	3 235	609	102	

ICE REX (East), delivered into ANR

3.205

+0.050

3.120

3.235

3.175

3.235

609

102

JAADK21

Trade date: 16-Oct						-		
Flow date(s): 17-Oct			Daily	Absolute	Absolute	Common	Common	
Location	Symbol	Index	Change	Low	High	Low	High	
Upper Midwest								
ICE REX (East), delivered into Lebanon Hub	JAAHC21	_	_	_	_	_	—	
ICE REX (East), delivered into Midwestern Gas	JAADL21	3.240	+0.060	3.230	3.250	3.235	3.245	
ICE REX (East), delivered into NGPL	JAADM21	3.220	+0.035	3.190	3.250	3.205	3.235	
ICE REX (East), delivered into Panhandle	JAADN21	3.245	+0.095	3.245	3.245	3.245	3.245	
ICE REX (East), delivered into Trunkline	JAAD021	3.210	+0.040	3.210	3.210	3.210	3.210	
ICE REX (West), delivered into ANR	JAADP21	—			—			
ICE REX (West), delivered into Northern Natural	JAADQ21	3.255	+0.050	3.230	3.280	3.245	3.270	
ICE REX (West), delivered into Panhandle	JAADR21	_					_	
ICE REX, zone 3 receipts	JAAHS21	3.140	0.050	3.140	3.140	3.140	3.140	
ICE Rover, delivered into ANR	JAAHI21	3.190	0.030	3.120	3.230	3.165	3.220	
ICE Rover, delivered into Panhandle	JAAHJ21	3.210	0.040	3.200	3.230	3.205	3.220	
ICE Rover, receipts	JAAHR21	—			—			
East Texas								
ICE Agua Dulce Hub	JAAGI21	_	_	_	_	_	—	
ICE Atmos, zone 3, receipts	JAAAL21	3.150	-0.020	3.120	3.160	3.140	3.160	
ICE Carthage Hub Tailgate	JAAAQ21	3.165	+0.005	3.160	3.180	3.160	3.170	
ICE ENT, STX Map	JAAHT21	_		_	_	_	_	
ICE ETC, Cleburne	JAAHH00	_	_	_	_	_	_	
ICE ETC, Maypearl	JAABK21	3.150	+0.030	3.120	3.150	3.145	3.150	
ICE Golden Triangle Storage & Hub	JAABL21	_		_	_	_	_	
ICE Gulf South, Pool Area #16	JAABP21	3.190	+0.035	3.140	3.200	3.175	3.200	
ICE HPL, East Texas Pool	JAABR21	—	_	—	_	—	_	
ICE Katy, ENSTOR Pool (excl. Kinder Morgan Texas)	JAABW21	3.495	-0.005	3.460	3.510	3.485	3.510	
ICE Katy, Lonestar (warranted as Intrastate)	JAABX21	_		_	—	—	—	
ICE Katy, Lonestar Interstate	JAABY21	_		_	_	_	—	
ICE Katy, Oasis Pipeline	JAABZ21	3.515	+0.000	3.490	3.540	3.505	3.530	
ICE Moss Bluff Interconnect (buyers' choice delivered)	JAACD21	3.445	+0.025	3.400	3.490	3.425	3.470	
ICE Moss Bluff Storage (in-ground transfers only)	JAACE21	—	_	—	_	—	_	
ICE NGPL, TXOK East Pool	JAACP21	3.185	+0.015	3.060	3.230	3.145	3.230	
ICE NGPL, TXOK West Pool	JAACQ21	_		_	—	—	—	
ICE NorTex, Tolar Hub	JAACR21	3.175	-0.025	3.160	3.185	3.170	3.180	
ICE Tennessee, zone 0 North	JAAEP21	—	_	—	—	—	—	
ICE Tennessee, zone 0 South	JAAEQ21	3.195	+0.040	3.120	3.210	3.175	3.210	
ICE Tres Palacios Hub - Injection	JAAFE21	3.285	+0.055	3.265	3.300	3.275	3.295	
ICE Tres Palacios Hub - Withdrawal	JAAFF21	3.490	+0.010	3.450	3.510	3.475	3.505	
Louisiana/Southeast								
ICE ANR, SE Transmission Pool	JAAAI21	3.210	+0.065	3.180	3.230	3.200	3.225	
ICE ANR, SE Gathering Pool	JAAAJ21	_	_	_	_	_	_	
ICE Bobcat Interconnect (buyers' choice delivered)	JAAA021	_	_	_	_	_	_	
ICE Bobcat Storage (in-ground transfer only)	JAAAP21	_	_	_	_	_	_	
ICE Egan Interconnect (buyers' choice delivered)	JAAAZ21	3.300	+0.200	3.300	3.300	3.300	3.300	

Volume

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ICE Bobcat Storage (in-ground transfer only)	JAAAP21	_	—	—	—	—	—	_	_
ICE Egan Interconnect (buyers' choice delivered)	JAAAZ21	3.300	+0.200	3.300	3.300	3.300	3.300	20	2
ICE Egan Storage (in-ground transfer only)	JAABA21	_	_	—	—	_	_	_	_
ICE Enable Gas, Perryville Hub	JAABG21	_	—	—	—	_	_	_	_
ICE Enable Gas, South Pool only	JAABH21	_	—	—	_	—	_	—	_
ICE Gulf South, Perryville Exchange Point	JAAB021	_	_	—	—	_		_	_
ICE Jefferson Island Storage and Hub	JAABV21	_	—	—	—	—	_	—	_
ICE MS Hub Storage	JAACF21	_	_	_	_	_	_	_	_
ICE NGPL, Louisiana Pooling PIN	JAACL21	_	_	—	—	_	_	_	_
ICE NGPL, Louisiana Storage PIN	JAACM21	_	—	—	—	_	_	_	_
ICE Pine Prairie Hub	JAADF21	3.250	+0.035	3.235	3.270	3.240	3.260	582	78
ICE Sonat, Zone O	JAAHE21	_	_	—	—	_	_	_	_
ICE Sonat, Zone 0 South Louisiana Pool	JAAEJ21	3.225	+0.030	3.200	3.265	3.210	3.240	453	80
ICE Sonat, Zone 1 North Pool	JAAEK21	_	—	—	_	—	_	—	_
ICE Southern Pines Hub	JAAEM21	_	_	—	—	_	_	_	_
ICE Stingray, pool delivery	JAAE021	_	—	—	—	_	_	_	_
ICE Tennessee, zone 1 100 Leg Pool	JAAER21	3.210	+0.045	3.200	3.230	3.205	3.220	118	20
ICE Tennessee, zone 1, Station 87 Pool	JAAES21	3.235	+0.040	3.200	3.250	3.225	3.250	118	18
ICE Texas Gas, Mainline Pool	JAAEX21	3.165	+0.015	3.150	3.195	3.155	3.175	954	136
ICE Texas Gas, North Louisiana Pool	JAAEY21	_	_	_	_	_	_	_	_

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

Trade date: 16-Oct									
Flow date(s): 17-Oct			Daily	Absolute	Absolute	Common	Common		
Location	Symbol	Index	Change	Low	High	Low	High	Volume	Deals
Rockies/Northwest									
ICE CIG, Mainline (sellers' choice, non-lateral)	JAAFY21	3.070	+0.050	3.050	3.075	3.065	3.075	54	10
ICE CIG, Mainline Pool	JAAFZ21	_	_	_	_	_	_	_	_
ICE CIG, Mainline South (sellers' choice)	JAAAT21	3.000	+0.020	3.000	3.000	3.000	3.000	60	6
ICE Kern River, on system receipt	JAACA21	3.095	+0.055	3.070	3.115	3.085	3.105	575	96
ICE Opal Plant Tailgate	JAADB21	3.105	+0.030	3.060	3.130	3.090	3.125	345	64
ICE PG&E, Onyx Hill	JAAHB21	_		_	_	_	_	_	_
ICE Pioneer Plant Tailgate	JAADG21	3.105	+0.060	3.100	3.110	3.105	3.110	32	8
ICE Questar, North Pool	JAADI21	3.030	+0.080	3.030	3.030	3.030	3.030	2	2
ICE Questar, South Pool	JAADJ21	_		_	_	_	_	_	_
ICE Ruby, Onyx Hill	JAADS21	3.180	+0.070	3.170	3.230	3.170	3.195	118	16
ICE Ruby, Receipt Pool	JAADT21	_	_	_	_	_	_	_	_
ICE Ryckman Creek Gas Storage	JAADU21	_		_	_	_	_	_	_
ICE WIC, Pool	JAAFH21	_	_	_	_	_	_	_	_
Southwest									
ICE Agua Blanca Pool	JAAHU21	_	_	_	_	_	_	_	_
ICE El Paso, Keystone Pool	JAABB21	2.225	+0.110	2.100	2.530	2.120	2.335	426	62
ICE El Paso, Plains Pool	JAABC21	2.570	+0.085	2.500	2.690	2.525	2.620	369	56
ICE El Paso, Waha Pool	JAABD21	2.220	+0.165	2.150	2.510	2.150	2.310	513	58
ICE Oasis, Waha Pool	JAACZ21	2.360	+0.365	2.220	2.470	2.300	2.425	41	8
ICE ONEOK, Westex Pool	JAADA21	2.480	+0.240	2.410	2.550	2.445	2.515	304	54
ICE PG&E, Daggett	JAADC21	_	_	_	_	_	_	_	_
ICE PG&E, Kern River Station	JAADD21	_	_	_	_	_	_	_	_
ICE PG&E, Topock	JAADE21	2.685	+0.160	2.670	2.750	2.670	2.705	54	14
ICE Socal, Blythe	JAADX21	_	_	_	_	_	_	_	_
ICE Socal, Ehrenberg (delivered)	JAADY21	2.775	+0.020	2.750	2.800	2.765	2.790	77	14
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	3.250	+0.015	3.250	3.250	3.250	3.250	4	2
ICE Socal, Kramer Junction	JAAED21	3.290	+0.035	3.280	3.300	3.285	3.295	340	42
ICE Socal, Needles	JAAEE21	_	_	_	_	_	_	_	_
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	3.290	+0.045	3.280	3.290	3.290	3.290	137	20
ICE Transwestern, Central Pool	JAAFB21	_	_	_	_	_	_	_	_
ICE Transwestern, Panhandle Pool	JAAFC21			_	_	_	_		_
ICE Transwestern, West Texas Pool	JAAFD21	2.340	+0.195	2.300	2.470	2.300	2.385	59	12
ICE Waha Hub, West Texas (buyer's choice delivered)	JAAFG21	2.305	+0.235	2.260	2.330	2.290	2.325	118	22

## ICE GAS DAILY ASSESSMENT RATIONALE

The daily indices for ICE locations are a volume weighted average of ICE Exchange trades submitted to Platts by ICE. No other sources of data are used. Platts editors do not screen the data for outliers or assess prices if there are no transactions. Questions may be directed to Ryan Ouwerkerk at 713-655-2202 or

ryan.ouwerkerk@spglobal.com



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