Natural Gas Bidweek Prices Tumble as Record Warmth Set for January

With January projected to be one of the Top-10 warmest on record, the double-digit decreases in bidweek prices reflect just how much things can change in a year. NGI's January Bidweek National Avg. dropped 26.0 cents to \$2.565.

A similarly mild weather outlook sent January 2019 bidweek prices tumbling as well, but this January's prices came in about \$1.75 lower as the 600 Bcf-plus storage deficit the market

faced a year ago has been erased. However, the January bidweek average did come in about 41 cents above the \$2.158 price of the January Nymex contract upon expiration.

Storage inventories as of Dec. 20 sat at a massive 518 Bcf surplus to year-ago levels and just 69 Bcf below the five-year average of 3,319 Bcf, according to the U.S. Energy Information Administration (EIA). Stocks are poised

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VGI		JANUARY 2020 B	TOWEEK			/	
		Gas Traded Dec 24 - 31 for Januar	Baseload Delivery				
Basis Only		Final CME Futures Settle		Fixed + Basis			
RANGE	AVG	2.158	RANGE	AVG	CHG	VOL	DEAL
OUTH TEXAS							
		Agua Dulce					
-		Florida Gas Zone 1					
		NGPL S. TX					
-0.160 to -0.1525	-0.1600	Tennessee Zone 0 South	1.995-2.010	2.000	-0.305	77	6
-0.100 to -0.100	-0.1000	Texas Eastern S. TX	2.055-2.060	2.060	-0.300	5	1
-0.085 to -0.085	-0.0850	Transco Zone 1	2.070-2.075	2.075	-0.295	20	4
		S. TX Regional Avg.	1.995-2.075	2.045	-0.300	102	11
AST TEXAS							
		Carthage					
		Houston Ship Channel					
		Katy					
-0.195 to -0.180	-0.1875	NGPL TexOk	1.960-1.980	1.970	-0.295	130	22
-0.180 to -0.170	-0.1725	Tennessee Zone 0 North	1.975-1.990	1.985	-0.305	12	4
		Texas Eastern E. TX					
		Transco Zone 2					
		E. TX Regional Avg.	1.960-1.990	1.980	-0.360	142	26
EST TEXAS/SE NEW ME	XICO						
		El Paso Permian	0.850-1.570	1.245	-0.255	707	154
		El Paso - Keystone Pool	0.950-1.300	1.155	-0.275	281	66
		El Paso - Plains Pool	1.450-1.570	1.530	-0.240	216	44
		El Paso - Waha Pool	0.850-1.300	1.065	-0.410	210	44
		Transwestern	1.050-1.200	1.120	-0.265	85	18
		Transwestern - Central	1.050-1.200	1.120	-0.280	45	10
		Transwestern - W. TX	1.050-1.200	1.125	-0.250	40	8
		Waha	0.850-1.300	1.090	-0.315	524	113
		W. TX/SE NM Regional Avg.	0.850-1.570	1.180	-0.290	1,105	241
IDWEST							
-		Alliance					
		ANR ML7					
0.110 to 0.120	0.1200	Chicago Citygate	2.250-2.355	2.295	-0.445	261	48
		Chicago - Nicor Gas	2.250-2.350	2.290	-0.465	181	27
0.120 to 0.120	0.1200	Chicago - NIPSCO	2.265-2.355	2.315	-0.415	66	17
		Chicago - North Shore					
0.110 to 0.110	0.1100	Chicago - Peoples	2.265-2.275	2.270	-0.450	16	4
-0.040 to -0.010	-0.0225	Consumers Energy	2.115-2.150	2.135	-0.315	101	22
0.010 to 0.040	0.0250	Dawn	2.070-2.270	2.175	-0.405	332	121
-0.120 to -0.120	-0.1200	Defiance	2.035-2.040	2.040		26	2
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JANUARY 2020 BIDWEEK

		Gas Traded Dec 24 - 31 for January	/ Baseload Delivery				
Basis On	ly	Final CME Futures Settle		Fixed + Basis			
RANGE	AVG	2.158	RANGE	AVG	CHG	VOL	DEALS
-0.120 to -0.120	-0.1200	Rover-ANR	2.035-2.040	2.040		26	2
		Rover-Panhandle					
0.025 to 0.090	0.0675	Emerson	2.180-2.250	2.225	-0.365	17	5
		Joliet					
-0.100 to -0.100	-0.1000	Lebanon	2.055-2.060	2.060	-0.340	40	4
-0.1425 to -0.125	-0.1350	Michigan Consolidated	2.015-2.050	2.025	-0.350	387	61
		NGPL Amarillo Mainline					
0.150 to 0.150	0.1500	Parkway/Union	2.135-2.330	2.230	-0.395	21	8
-0.120 to -0.045	-0.0925	REX Zone 3 Delivered	2.035-2.115	2.065	-0.290	82	21
-0.120 to -0.045	-0.1050	REX into ANR - Shelby	2.035-2.115	2.050	-0.300	39	13
		REX into MGT - Edgar					
-0.100 to -0.065	-0.0825	REX into NGPL - Moultrie	2.055-2.095	2.075	-0.305	40	6
-0.090 to -0.090	-0.0929	REX into PEPL - Putnam	2.065-2.070	2.070	-0.505	3	2
-0.090 to -0.090	-0.0900		2.003-2.070	2.070			
		REX into Trunk - Douglas					
		Midwest Regional Avg.	2.015-2.355	2.150	-0.400	1,264	292
IDCONTINENT							
-0.270 to -0.200	-0.2125	ANR SW	1.885-1.960	1.945	-0.405	100	20
-0.205 to -0.170	-0.1850	Enable East	1.950-1.990	1.970	-0.155	175	20
-0.900 to -0.600	-0.7500	NGPL Midcontinent	1.255-1.560	1.430	-0.245	201	43
		Northern Border Ventura					
		Northern Natural Demarc	2.300-2.380	2.340	-0.505	25	10
		Northern Natural Ventura	2.385-2.480	2.430	-0.410	66	21
-0.610 to -0.600	-0.6025	OGT	1.545-1.665	1.580	-0.130	54	12
-0.550 to -0.3975	-0.5175	Panhandle Eastern	1.590-1.765	1.640	-0.320	287	45
-0.200 to -0.200	-0.2000	Southern Star	1.955-1.960	1.960	-0.360	63	13
		Midcontinent Regional Avg.	1.255-2.480	1.910	-0.320	969	184
ORTH LOUISIANA/ARKA	NSAS						
-0.090 to -0.090	-0.0900	Perryville	2.065-2.115	2.105	-0.235	10	2
		Texas Eastern. M1. 24					
-0.1675 to -0.1475	-0.1525	Texas Gas Zone 1	1.990-2.015	2.005	-0.305	67	15
-0.1675 to -0.1425	-0.1650	Trunkline Zone 1A	1.950-2.020	1.995	-0.320	123	23
		N. LA Regional Avg.	1.950-2.115	2.035	-0.285	198	40
OUTH LOUISIANA		W. EA Regional Avg.	1.000 2.110	2.000	0.200	100	70
		ANR SE					
-0.180 to -0.170	-0.1750	Columbia Gulf Mainline	1.975-1.990	1.985	-0.305	204	32
	-0.1750						
-0.090 to -0.075		Columbia Gulf onshore	2.065-2.085	2.070	-0.325	29	7
0.000 to 0.000	0.0000	Florida Gas Zone 2	2.155-2.160	2.160	-0.265	11	1
-0.005 to 0.000	0.0000	Henry Hub	2.150-2.160	2.160	-0.310	273	11
-0.0625 to -0.050	-0.0600	Southern Natural	2.095-2.110	2.100	-0.310	88	13
-0.080 to -0.065	-0.0750	Tennessee Line 500	2.075-2.095	2.085	-0.320	53	9
-0.125 to -0.120	-0.1225	Tennessee Line 800	2.030-2.040	2.035	-0.320	40	6
-0.120 to -0.0975	-0.1150	Texas Eastern E. LA	2.035-2.065	2.040	-0.320	25	6
-0.080 to -0.080	-0.0800	Texas Eastern W. LA	2.075-2.080	2.080	-0.320	1	2
		Texas Gas Zone SL					
-0.050 to -0.040	-0.0425	Transco Zone 3	2.105-2.120	2.115	-0.300	76	15
		Trunkline E. LA					
		Trunkline W. LA					
		S. LA Regional Avg.	1.975-2.160	2.085	-0.305	795	102
OUTHEAST							
		FGT Citygate					
-0.005 to 0.015	0.0025	Florida Gas Zone 3	2.150-2.175	2.160	-0.320	128	24
-0.003 to 0.013	0.0025	Texas Eastern M-1, 30	2.100-2.175	2.100	-0.020		
		Transco Zone 4				246	
-0.040 to 0.000	-0.0250		2.115-2.160	2.135	-0.305		41
0.970 to 1.400	1.1225	Transco Zone 5	3.125-3.560	3.280	0.010	251	72
1.000 to 1.190	1.1175	Transco Zone 5 North	3.155-3.350	3.275	-0.040	30	6
0.970 to 1.400	1.1225	Transco Zone 5 South	3.125-3.560	3.280	0.020	221	66
		Southeast Regional Avg.	2.115-3.560	2.825	-0.130	624	137

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JANUARY 2020 BIDWEEK

		Gas Traded Dec 24 - 31 for Januar	y Baseload Delivery				
Basis Only	y	Final CME Futures Settle		Fixed	+ Basis		
RANGE	AVG	2.158	RANGE	AVG	CHG	VOL	DEALS
APPALACHIA							
-0.350 to -0.320	-0.3425	Columbia Gas	1.805-1.840	1.815	-0.310	267	78
-0.415 to -0.380	-0.4125	Dominion North	1.740-1.780	1.745	-0.295	23	9
-0.440 to -0.400	-0.4225	Dominion South	1.715-1.760	1.735	-0.310	353	96
		Leidy Hub					
-0.410 to -0.370	-0.4000	Millennium East Pool	1.745-1.790	1.760	-0.295	17	5
-0.200 to -0.155	-0.1625	Tenn Zone 4 200L	1.955-2.005	1.995	-0.320	207	19
-0.400 to -0.340	-0.3875	Tennessee Zn 4 313 Pool	1.755-1.820	1.770	-0.330	49	21
-0.4525 to -0.420	-0.4325	Tennessee Zn 4 Marcellus	1.705-1.740	1.725	-0.260	50	16
		Texas Eastern M-2, 30 Delivery					
-0.445 to -0.3825	-0.4150	Texas Eastern M-2, 30 Receipt	1.710-1.780	1.740	-0.305	439	83
0.970 to 1.610	1.1825	Texas Eastern M-3, Delivery	3.125-3.770	3.340	-0.230	198	61
		Texas Eastern M-3, Receipt					
-0.425 to -0.370	-0.4075	Transco-Leidy Line	1.730-1.790	1.750	-0.280	181	48
-0.423 (0 -0.370	-0.4073	Appalachia Regional Avg.	1.705-3.770	1.730	-0.270	1,779	436
NORTHEAST		Арраівснів Кедіонаї Ауд.	1.705-5.770	1.540	-0.270	1,779	430
3.500 to 4.850	4.2925	Algenquin Citygete	5 655 7 010	6.450	1 275	113	51
		Algonquin Citygate	5.655-7.010	6.450	1.375		
3.500 to 4.850	4.2925	Algonquin Citygate (non-G)	5.655-7.010	6.450	1.375	113	51
4.000 (. 5.450	4.0405	Algonquin Receipts					
4.200 to 5.150	4.3125	Iroquois Zone 2	6.355-7.310	6.470	1.405	15	15
1.150 to 1.460	1.2450	Iroquois, Waddington	3.305-3.620	3.405	0.185	65	37
0.100 to 0.180	0.1325	Niagara	2.255-2.340	2.290	-0.280	7	7
		Tenn Zone 5 200L					
		Tenn Zone 5 200L East					
		Tenn Zone 5 200L West					
		Tenn Zone 5 300L					
3.450 to 5.250	4.1175	Tenn Zone 6 200L	5.605-7.780	6.415	0.365	11	7
4.450 to 5.250	4.8950	Tenn Zone 6 200L North	6.605-7.780	7.210	1.130	5	5
3.450 to 4.650	3.6500	Tenn Zone 6 200L South	5.605-6.810	5.810	0.590	6	2
		Tenn Zone 6 300L					
0.800 to 1.550	1.0675	Transco Zone 6 non-NY	2.955-3.710	3.225	-0.080	254	75
0.800 to 1.550	1.0675	Transco Zone 6 non-NY North	2.955-3.710	3.225	-0.080	254	75
		Transco Zone 6 non-NY South					
1.750 to 2.350	2.0850	Transco Zone 6 NY	3.905-4.510	4.245	0.350	43	26
		Northeast Regional Avg.	2.255-7.780	5.020	0.635	505	218
ROCKY MOUNTAINS							
		Cheyenne Hub	1.820-1.900	1.840	-0.485	110	13
		CIG	1.830-1.870	1.865	-0.430	120	11
		CIG DJ Basin					
		El Paso Bondad	2.290-2.450	2.365	0.000	105	17
		El Paso San Juan	2.275-2.520	2.425	-0.080	195	25
		Kern River	3.100-3.230	3.140	-0.380	305	49
		Kingsgate					
		Northwest Rockies	3.000-3.250	3.085	0.480	15	3
		Northwest S. of Green River					
		Northwest Sumas	3.550-3.850	3.725	-2.915	166	58
				3.725	-0.045		3
		Northwest Wyoming Pool	3.000-3.250			15 341	55
		Opal	3.000-3.300	3.165	-0.410		
		Questar	3.000-3.000	3.000	-0.120	1	1
		Stanfield					
		Transwestern San Juan	2.430-2.580	2.485	-0.225	140	14
		White River Hub	2.200-2.400	2.335	-0.125	45	5
		Rocky Mtns. Regional Avg.	1.820-3.850	2.710	-0.390	1,437	245
ARIZONA/NEVADA							
		El Paso S. Mainline/N. Baja					
-		Kern Delivery	3.800-4.000	3.880	-0.345	120	27

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JANUARY 2020 BIDWEEK

	Gas Traded Dec 24 - 31 for January Baseload Delivery						
Basis On	ıly	Final CME Futures Settle		Fixed + Basis			
RANGE	AVG	2.158	RANGE	AVG	CHG	VOL	DEALS
CALIFORNIA							
		Malin	3.125-3.320	3.220	-0.310	267	60
		PG&E Citygate	3.450-3.610	3.540	-0.485	190	41
		SoCal Citygate	5.800-5.950	5.880	-0.900	309	59
		Southern Border, PG&E	2.600-2.640	2.625	-0.180	38	8
		Southern Border, SoCal	2.600-3.700	2.955	-0.760	140	11
		SoCal Border Avg.	2.600-3.700	2.955	-0.760	140	11
		SoCal Border - Blythe		-			
		SoCal Border - Ehrenberg	3.500-3.700	3.560	-0.575	50	5
		SoCal Border - Kern River Station		-			
		SoCal Border - Kramer					
		SoCal Border - Needles	2.600-2.750	2.620	-0.150	80	4
		SoCal Border - Topock	2.635-2.635	2.635		10	2
		SoCal Border - Wheeler Ridge		-			-
		California Regional Avg.	2.600-5.950	3.330	-0.680	942	179
		National Avg.	0.850-7.780	2.565	-0.260	9,977	2,138
CANADA							
		Alliance (APC) - ATP					
		Empress	2.315-2.400	2.345	-0.600	226	57
		NOVA/AECO C	2.180-2.280	2.235	-0.545	797	266
		Westcoast Station 2	2.060-2.205	2.170	-0.565	60	16

Prices are in US\$/MMBtu except for prices in the Canada section, which are expressed in Cdn\$/GJ. The deals column represents the number of transaction reports used by NGI in the calculation of the price and the volume column represents the sum of the volume of those deals, expressed in thousand MMBtus/day. Volumes may not total because of rounding. The data upon which we derive our indexes include both data provided to NGI from the ICE trading platform as well as submitted directly from companies who are principals to the trade. For more information, please see NGI's Price Methodology.

... from NatGas Bidweek Prices Tumble as Record Warmth Set for January, pg. 1 to grow even further as long-range weather outlooks maintain a pattern where any cooler troughs drop into lower demand markets in the West.

With a total lack of blocking on the Atlantic side, the response is warm ridging much more often than not in the eastern half of the nation, according to Bespoke Weather Services. Based on the current forecast, the firm now projects January to be "another Top 10 warm month, and that even assumes normal beyond Day 15, so there is room to climb the charts more if this pattern doesn't change.

"We did see such a change last January after a warm first half, but so far see no clear signs of a repeat."

NatGasWeather continues to look around Jan. 17-20 for a pattern change as very cold air is forecast to be over Western Canada that has the potential to release and spread into the United States. However, the weather data has yet to show this as a high probability of occurring, so the firm is waiting to see if weather data starts to show the colder air pushing farther south.

There is some hope for a recovery, however. Taking a look at the monthly changes in the Nymex front-month contract in January for the past five years, prices moved at least 10% from year-end to mid-January, according to EBW Analytics Group.

"In January 2018 and 2019, gas skyrocketed by more than 20% before receding," the firm said. "Should weather forecasts turn colder and spur short-covering, a similar outcome may be in store this year."

However, the front-month contract posted declines by the end of the month in four of the five past Januaries, EBW noted. On average, prices posted a 5% increase by mid-January before stumbling to a net 5% decline by the end of the month.

"In 2020, even if prices do briefly surge higher, an oversupplied seasonal outlook appears likely to reverse any short-term gains for natural gas," the firm said.

However, there are other factors that could influence prices. The active rig count remains a strong signal of the overall health of the oil and gas industry in the United States, according to analytics firm Enverus.

In addition to lower commodity prices, the new mantra from investors of "free cash flow" and the resulting push to generate investor returns by focusing on capital efficiency has urged more operators to do more with less and pull back on production volume growth, the firm said.

Rig count data has reflected this trend, steadily declining since 4Q2018, when the United States had the most active rigs since the lowest point in 2Q2016, according to Enverus. "The U.S. rig count is currently sitting at levels last seen during 1Q2017."

The Anadarko Basin continues to lead the drop with more than 60% fewer rigs in 4Q2019 compared to 3Q2019, according to the firm. In percentage terms, other basins posting

a large drop in active rigs include the Denver-Julesburg Basin (at nearly 50%), Appalachia and the Gulf Coast, including the Eagle Ford.

"However, no major basin remains at 4Q2018 rig count levels, and even the Permian has dropped," Enverus said.

In its most recent Drilling Productivity Report, the EIA said total oil and natural gas production from seven of the most prolific U.S. onshore unconventional plays continues to increase, but for a second consecutive month will grow by less than 1% in January.

EIA expects increases in five of the seven plays, including the Permian Basin with a forecasted 17.08 Bcf/d, up from 16.86 Bcf/d in December. EIA also expects increases in the Haynesville (12.09 Bcf/d from 11.96 Bcf/d) and the Niobrara (5.59 Bcf/d from 5.58 Bcf/d), along with a marginal increase in the Bakken (3.12 Bcf/d). Month-to-month decreases in gas production are expected in the Appalachian Basin (33.43 Bcf/d in January, compared with 33.51 Bcf/d in December) and the Eagle Ford Shale (6.76 Bcf/d from 6.84 Bcf/d).

In 2020, Enverus expects to see continued crude production growth in the Permian as operators push drilling efficiencies and take advantage of spare pipeline takeaway capacity. However, it anticipates a slowdown in gas production growth, "because the Permian is bottlenecked today, and another takeaway gas pipeline is not expected to begin service until 1Q2021."

However, just because producers have pledged greater fiscal responsibility and indicated they won't add rigs in 2020 if commodity prices rise, they may not have to, according to NGI's Patrick Rau, director of strategy and research. A significant backlog of drilled but uncompleted wells (DUC) could come online to grow production even without new rigs.

This is especially true in the Haynesville Shale, Permian and Midcontinent. "That could help cap any price rally, or at least help keep them in check, everything else being equal," Rau said.

Raymond James & Associates Inc. in December said onshore completion activity "is at an all-time high" even as the rig count has fallen, leading to a huge disconnect that may not be sustained through 2020. "As a result, operators are going to naturally require more inventory to continue running efficiently at an expanded pace."

The firm sees DUC reaching "critical levels" by February, at which point frack crews will need to be idled or dropped as there "simply won't be enough slack (DUCs) to operate at today's rapid pace, supporting our below-consensus oil growth forecast next year."

West Plummets

Although it's been a rather mild winter so far across most of the United States, winter storms have wreaked havoc on the West, driving up demand and leading to extreme volatility in the region.

The flurry of storms shows no signs of slowing down in the new year. One storm in particular is likely to pack a significant punch Friday night through Saturday, according to AccuWeather. The "powerhouse storm" will be the third to strike the region in as many days, following one storm that lasted into New Year's Day and another expected to move in late Thursday.

Wind gusts that could exceed hurricane force, 74 mph or more, are possible and more than a foot of snow is likely in the Cascade Mountains.

"By Saturday, high winds will shift eastward to include all of Washington east of the Cascades, as well as northern Idaho and Montana," AccuWeather senior meteorologist Brian Thompson said.

The region is expected to have little respite from unsettled weather as yet another storm will swing in on Sunday with several more to follow during the first full week of January, according to the forecaster.

Despite the messy weather pattern to start the new year, January bidweek prices across the region posted large declines month/month. In the Rockies, Cheyenne Hub plunged 48.5 cents to average \$1.840. ...cont' pg. 6



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A much larger decline was seen at Northwest Sumas, where January bidweek prices tumbled \$2.915 to \$3.725. The dramatic selloff occurred as import restrictions that had been in place for more than a year following an explosion on Westcoast Transmission were finally lifted.

The approval by the Canada Energy Regulator (CER) ends a safety restriction that cut the pipeline's operating pressure, disrupting supplies and prices along the Pacific coast of the United States and BC since the blast on Oct. 9, 2018.

Westcoast deliveries to the U.S. Pacific Northwest shrank by an estimated 200 MMcf/d and resulted in extreme volatility at Northwest Sumas during times of strong demand. The BC supply loss fueled the sharpest American spot price spike recorded in five years by NGI -- \$161.330/MMBtu on March 1 at the Sumas border crossing into Washington.

Farther west in California, January bidweek prices at PG&E Citygate dropped 48.5 cents month/month to \$3.540. SoCal Citygate fell 90.0 cents to \$5.880.

Upstream in the Permian Basin, Waha January bidweek prices were down 31.5 cents month/month to \$1.090, although transactions were seen as low as 85.0 cents.

Although January prices averaged well above zero, Permian Basin cash prices during the final full week of 2019 returned to negative territory for the first time since last August as weak demand and ample supply weighed on the market.

In the country's midsection, Chicago Citygate January bidweek dropped 44.5 cents to \$2.295, while benchmark Henry Hub slid 31.0 cents to \$2.160.

Farther east, prices across Appalachia were down between 20 and 30 cents, although a few pricing hubs notched slightly more pronounced declines.

The Northeast was the only region to post widespread gains as the timing of a winter storm gave traders some caution during bidweek trading. The first half and last half of this "dynamic storm" will be like night and day in terms of weather and precipitation type for many locations, according to AccuWeather.

Aside from a brief period of freezing rain in portions of northeastern New York state and central New England at the storm's onset, precipitation was expected to begin as rainfall with mild conditions entrenched across much of the Northeast. The second half of the storm was forecast to be colder and more "wintry" and responsible for snow of some sort in many areas of the Northeast.

It's possible that precipitation may hold off until the storm is ready to bring pure snow to northern New England later this weekend, according to AccuWeather. "The amount of snowfall from Washington, DC, to New York City and Boston is not yet set in stone, but much of this swath is likely to at least have some snow mixing in at the end of the storm during Saturday night and Sunday."



There is an increasing potential for accumulating snow from the northern suburbs of Philadelphia to New York City and the potential for accumulating snow on roads north and west of New York City to Boston. Long Island, NY, may also pick up an inch or two of slushy snow, according to the forecaster.

"How much snow accumulates will depend on how quickly colder air reaches the coast and causes rain to become mixed with and change to snow," AccuWeather senior meteorologist Brett Anderson said.

With the blast of cold air on the horizon, January bidweek prices at New England's Algonquin Citygate shot up \$1.375 to average \$6.450. Transco Zone 6 NY jumped 35.0 cents to \$4.245. ■

NGI DECEMBER 2019 CUMULATIVE PRICES

Gas Traded Nov 27 - Dec 30 for

	Gas Traded Nov	lov 27 - Dec	
	RANGE	AVG	
outh Texas			
Agua Dulce	1.700-2.200	1.975	
Florida Gas Zone 1	1.720-2.305	2.120	
NGPL S. TX	1.600-2.180	1.960	
Tennessee Zone 0 South	1.500-2.300	2.050	
Texas Eastern S. TX Transco Zone 1	1.690-2.280 1.650-2.300	2.110 2.115	
Tres Palacios	1.660-2.350	2.115	
S. TX Regional Avg.	1.500-2.350	2.095	
ast Texas	1.000 2.000	2.000	
Atmos Zone 3	1.470-2.170	1.915	
Carthage	1.630-2.230	2.045	
Golden Triangle Storage	2.170-2.340	2.245	
Houston Ship Channel	1.690-2.270	2.100	
HPL - East Texas Pool			
Katy	1.670-2.330	2.105	
Maypearl	1.600-2.160	1.960	
Moss Bluff	1.970-2.300	2.165	
NGPL TexOk	1.650-2.220	2.035	
Tennessee Zone 0 North	1.600-2.215	2.040	
Texas Eastern E. TX	1.600-2.230	1.975	
Tolar Hub Transco Zone 2	1.570-2.200	1.935	
E. TX Regional Avg.	1.675-2.270 1.470-2.340	2.110	
lest Texas/SE New Mexico	1.470-2.340	2.033	
El Paso Permian	-0.750-2.200	1.220	
El Paso - Keystone Pool	-0.720-1.800	1.215	
El Paso - Plains Pool	0.350-2.200	1.520	
El Paso - Waha Pool	- <mark>0.750</mark> -1.750	1.200	
Northern Natural Gas 1-7	0.240-1.650	0.975	
Oneok WesTex	0.010-1.745	1.265	
Transwestern	-0.750- 1.700	1.180	
Transwestern - Central	0.250-1.600	1.180	
Transwestern - W. TX	- <mark>0.750</mark> -1.700	1.180	
Waha	-0.750-1.800	1.225	
W. TX/SE NM Regional Avg.	-0.750-2.200	1.250	
Alliance	1.750-2.305	0.405	
ANR ML7	1.900-2.450	2.105 2.160	
Bluewater Hub	1.900-2.450	2.100	
Chicago Citygate	1.700-2.310	2.110	
Chicago - Nicor Gas	1.900-2.300	2.125	
Chicago - NIPSCO	1.750-2.300	2.105	
Chicago - North Shore	1.950-2.300	2.125	
Chicago - Peoples	1.700-2.310	2.095	
Consumers Energy	1.840-2.340	2.125	
Dawn	1.960-2.500	2.230	
Defiance	1.670-2.225	2.060	
Rover-ANR	1.680-2.215	2.060	
Rover-Panhandle	1.670-2.225	2.065	
Emerson	1.850-2.355	2.140	
Joliet	1.750-2.305	2.105	
Lebanon	1.650-2.240	2.075	
Michigan Consolidated	1.810-2.315	2.120	
NGPL Amarillo Mainline	1.700-2.300	2.030	
NGPL Iowa-Illinois NGPL MidAmerican	1.890-2.240 1.950-2.265	2.090	
Parkway/Union	2.055-2.515	2.120	
REX Zone 3 Delivered	1.680-2.230	2.200	
REX into ANR - Shelby	1.685-2.220	2.065	
REX into MGT - Edgar	1.700-2.230	2.005	
REX into NGPL - Moultrie	1.680-2.230	2.065	
REX into PEPL - Putnam	1.680-2.220	2.085	
REX into Trunk - Douglas	1.700-2.220	2.060	
St. Clair	1.970-2.350	2.195	
Midwest Regional Avg.	1.650-2.515	2.105	

Design the second of the secon	•	
r Dec Incremental Delivery		
	RANGE	AVG
Midcontinent		
ANR SW	1.550-2.275	1.935
Enable East	1.680-2.220	2.015
NGPL Midcontinent	0.200-1.760	1.310
Northern Border Ventura	1.740-2.300	2.075
Northern Natural Demarc	1.690-2.300	2.040
Northern Natural Gas 8-12	1.550-1.550	1.550
Northern Natural Gas 13-16A	1.550-1.550	
Northern Natural Ventura	1.730-2.370	2.080
OGT	0.900-1.900	1.590
Panhandle Eastern	1.200-2.150	1.735
Southern Star	1.600-2.260	1.930
Transwestern Panhandle Pool	1.400-2.200	1.770
Midcontinent Regional Avg.	0.200-2.370	1.850
North Louisiana/Arkansas		
Enable South	1.990-2.050	2.020
NGPL Gulf Coast Mainline	2.180-2.180	2.180
Perryville	1.930-2.230	2.130
Texas Eastern, M1, 24	1.650-2.250	2.065
Texas Gas Zone 1	1.640-2.245	2.055
Trunkline Zone 1A	1.625-2.260	2.060
N. LA Regional Avg.	1.625-2.260	2.060
South Louisiana	1.025-2.200	2.000
ANR SE	1.665-2.300	2.140
Bobcat Storage	1.730-2.270	2.095
Columbia Gulf Mainline	1.610-2.260	2.045
Columbia Gulf onshore	1.650-2.280	2.120
Egan Hub	2.010-2.340	2.180
Florida Gas Zone 2	2.255-2.255	2.255
Henry Hub	1.750-2.400	2.215
Pine Prairie	1.680-2.330	2.135
Southern Natural	1.660-2.360	2.155
Tennessee Line 500	1.680-2.350	2.145
Tennessee Line 800	1.600-2.270	2.085
Texas Eastern E. LA	1.650-2.280	2.130
Texas Eastern W. LA	1.700-2.300	2.130
Texas Gas Zone SL		
Transco Zone 3	1.670-2.330	2.150
Trunkline E. LA	1.660-2.320	2.125
Trunkline W. LA	1.000-2.020	
S. LA Regional Avg.	1.600-2.400	2.135
	1.000-2.400	2.133
Southeast	. === . ===	
Dominion Energy Cove Point	1.750-4.750	2.595
FGT Citygate		
Florida Gas Zone 3	1.780-2.400	2.195
Southern Pines		
Tenn Zone 1 100L	1.650-2.320	2.070
Texas Eastern M-1, 30	1.800-2.295	2.125
Transco Zone 4	1.670-2.400	2.175
Transco Zone 5	1.740-5.000	2.595
Transco Zone 5 North	1.750-5.000	2.605
Transco Zone 5 South	1.740-5.000	2.595
Southeast Regional Avg.	1.650-5.000	2.365
Appalachia		
Columbia Gas	1.580-2.110	1.910
Dominion North	1.550-2.040	1.825
Dominion South	1.530-2.040	1.825
Leidy Hub	1.630-2.060	1.855
Millennium Delivered	4.000.0.405	4.00=
Millennium East Pool	1.600-2.130	1.835
Tenn Zone 4 200L	1.640-2.240	2.020
Tennessee Zn 4 313 Pool	1.670-2.100	1.865
Tennessee Zn 4 Marcellus	1.550-2.100	1.810
Texas Eastern M-2, 30 Delivery	1.900-2.380	2.185
Texas Eastern M-2, 30 Receipt	1.540-2.090	1.840
Texas Eastern M-3, Delivery	1.705-6.000	2.660

DECEMBER 2019 CUMULATIVE PRICES

1101	Gas Traded No	v 27 - Ded	30 for Dec Incremental Delivery
	RANGE	AVG	
Texas Eastern M-3, Receipt	1.550-3.400	2.120	Northwest S. of Green Riv
Transco-Leidy Line	1.550-2.060	1.830	Northwest Sumas
Appalachia Regional Avg.	1.530-6.000	1.950	Northwest Wyoming Pool
Northeast			Opal
Algonquin Citygate	1.970-15.250	5.065	Questar
Algonquin Citygate (non-G)	1.970-15.250	5.055	Ruby - Receipts
Algonquin Receipts	2.000-15.000	4.585	Stanfield
Dracut	11.500-14.500	12.715	Transwestern San Juan
Iroquois Zone 1	2.055-7.000	2.735	White River Hub
Iroquois Zone 2	2.085-16.500	4.355	Rocky Mtns. Regional Avg
Iroquois, Waddington	2.050-3.500	2.550	Arizona/Nevada
Maritimes & Northeast	4.000-14.000	6.005	El Paso S. Mainline/N. Ba
Niagara	1.700-2.750	2.185	Kern Delivery
PNGTS	2.900-14.750	5.465	California
Tenn Zone 5 200L	1.810-8.000	2.915	Malin
Tenn Zone 5 200L East	1.950-8.000	2.955	PG&E Citygate
Tenn Zone 5 200L West	1.810-2.300	2.155	SoCal Citygate
Tenn Zone 5 300L	=		Southern Border, PG&E
Tenn Zone 6 200L	1.900-15.500	5.235	SoCal Border Avg.
Tenn Zone 6 200L North	2.350-15.500	5.560	SoCal Border - Blythe
Tenn Zone 6 200L South	1.900-15.000	5.030	SoCal Border - Ehrenberg
Tenn Zone 6 300L	2.300-7.750	4.315	SoCal Border - Kern River
Transco Zone 6 non-NY	1.680-5.600	2.560	SoCal Border - Kramer
Transco Zone 6 non-NY North	1.680-5.600	2.560	SoCal Border - Needles
Transco Zone 6 non-NY South			SoCal Border - Topock
Transco Zone 6 NY	1.750-6.000	2.720	SoCal Border - Wheeler R
Northeast Regional Avg.	1.680-16.500	3.920	California Regional Avg.
Rocky Mountains			National Avg.
Cheyenne Hub	1.600-2.280	1.920	Canada
CIG	1.620-2.250	1.925	Alliance (APC) - ATP
CIG DJ Basin	1.500-2.130	1.780	Empress
El Paso Bondad	1.675-2.890	2.295	NOVA/AECO C
El Paso San Juan	1.750-2.920	2.275	Westcoast Station 2
Kern River	2.415-3.800	2.925	Notes to Cumulative Spot G
Kingsgate	2.420-3.600	2.860	in the Canada section, which

	RANGE	AVG
Northwest S. of Green River	1.830-2.880	2.265
Northwest Sumas	2.500-5.100	3.125
Northwest Wyoming Pool	2.430-3.730	2.875
Opal	2.450-3.800	2.930
Questar	2.250-3.150	2.645
Ruby - Receipts	2.580-3.570	2.970
Stanfield	2.520-3.700	2.920
Transwestern San Juan	1.850-2.900	2.335
White River Hub	1.800-2.880	2.250
Rocky Mtns. Regional Avg.	1.500-5.100	2.525
rizona/Nevada		
El Paso S. Mainline/N. Baja	2.330-4.850	3.135
Kern Delivery	2.680-5.000	3.305
alifornia		
Malin	2.460-3.680	2.930
PG&E Citygate	3.100-3.710	3.370
SoCal Citygate	4.100-7.000	5.420
Southern Border, PG&E	1.600-3.000	2.450
SoCal Border Avg.	2.000-5.000	3.010
SoCal Border - Blythe		
SoCal Border - Ehrenberg	2.350-5.000	3.165
SoCal Border - Kern River Station	2.635-4.300	3.230
SoCal Border - Kramer	2.630-4.900	3.290
SoCal Border - Needles	2.000-3.150	2.500
SoCal Border - Topock	2.000-3.200	2.640
SoCal Border - Wheeler Ridge	2.630-4.500	3.220
California Regional Avg.	1.600-7.000	3.215
National Avg.	-0.750 -16.500	2.405
anada		
Alliance (APC) - ATP	1.700-2.360	2.075
Empress	2.000-2.640	2.325
NOVA/AECO C	2.000-2.650	2.300
Westcoast Station 2	1.500-2.350	2.050
Notes to Cumulative Snot Gas Prices table: Prices are	in LIS\$/MMRtu_except for	locations

Notes to Cumulative Spot Gas Prices table: Prices are in US\$/MMBtu, except for locations in the Canada section, which are in Cdn\$/GJ. This table is based on information distilled from daily incremental prices published in NGI's Daily Gas Price Index.



NGI's Bidweek Survey is published by close of business on the first business day of each month by Intelligence Press, Inc. (800) 427-5747.

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NGI's BIDWEEK SURVEY

JANUARY 1, 2020

ISSN 1532-124X (PRINT) ISSN 1532-1258 (ONLINE)