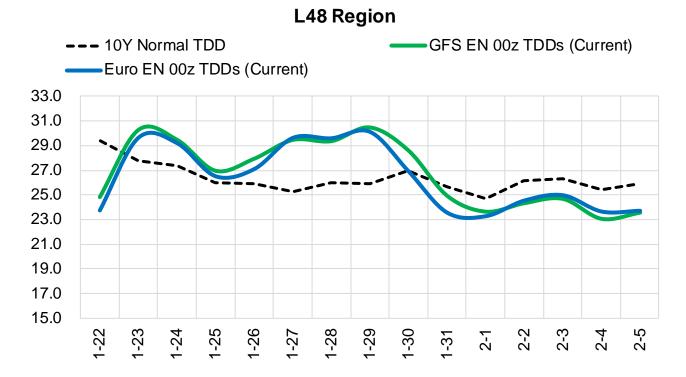
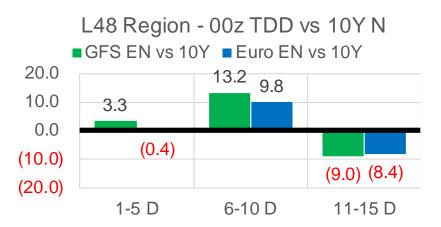




# Short-term Weather Model Outlooks (00z)



# Vs. 10Y Normal



Source: WSI, Bloomberg

# **Market Report**

# 22 January 2021

#### **Daily Balances**

	16-Jan	17-Jan	18-Jan	19-Jan	20-Jan	21-Jan	22-Jan	DoD	vs. 7D
Lower 48 Dry Production	90.6	90.7	90.9	90.8	91.4	90.7	90.6	▼ -0.2	▼ -0.3
Canadian Imports	5.8	5.8	5.9	6.0	6.2	6.1	6.2	<b>0.1</b>	<b>0.3</b>
L48 Power	26.2	25.6	26.4	26.0	26.9	25.7	0.0	▼-25.7	▼-26.1
L48 Residential & Commercial	39.9	39.5	40.9	41.0	43.0	38.8	0.0	▼-38.8	▼-40.5
L48 Industrial	25.2	25.1	25.1	24.9	24.7	24.0	0.0	▼-24.0	▼-24.8
L48 Lease and Plant Fuel	5.0	5.0	5.0	5.0	5.0	5.0	0.0	▼ -5.0	▼ -5.0
L48 Pipeline Distribution	3.0	3.0	3.1	3.0	3.2	2.9	0.0	<b>-</b> 2.9	▼ -3.0
L48 Regional Gas Consumption	99.2	98.2	100.5	99.9	102.9	96.4	0.0	▼-96.4	▼-99.5
Net LNG Delivered	10.87	10.86	11.05	10.76	9.90	8.54	9.06	<b>a</b> 0.5	<b>T</b> -1.3
Total Mexican Exports	5.9	5.9	6.2	6.3	6.7	6.8	6.7	<b>-0.1</b>	<b>0.4</b>
Implied Daily Storage Activity EIA Reported Daily Storage Activity	-19.7	-18.4	-20.9	-20.1	-21.9	-14.8	81.1		

Lower 48 Component Models

Daily Model Error

#### **EIA Storage Week Balances**

	11-Dec	18-Dec	25-Dec	1-Jan	8-Jan	15-Jan	WoW	vs. 4W
Lower 48 Dry Production	90.8	90.9	91.5	91.7	91.6	90.4	▼ -1.2	▼-1.0
Canadian Imports	5.9	5.8	5.8	5.8	6.1	6.2	<b>0.1</b>	<b>0.3</b>
L48 Power	27.9	28.3	26.5	26.3	27.4	29.6	<b>A</b> 2.2	<b>2</b> .5
L48 Residential & Commercial	36.3	40.0	38.8	41.9	39.9	43.7	<b>A</b> 3.8	<b>A</b> 3.5
L48 Industrial	24.8	25.6	24.8	24.0	25.4	25.4	▼ 0.0	<b>a</b> 0.4
L48 Lease and Plant Fuel	5.0	5.0	5.1	5.1	5.1	5.0	<b>T</b> -0.1	<b>T</b> -0.1
L48 Pipeline Distribution	2.9	3.1	3.0	3.1	3.0	3.3	<b>a</b> 0.3	<b>a</b> 0.3
L48 Regional Gas Consumption	97.0	102.0	98.2	100.4	100.8	107.0	<b>6.2</b>	<b>6.6</b>
Net LNG Exports	11.3	10.9	10.8	11.0	10.9	10.6	<b>▼ -0.3</b>	<b>▼-0.3</b>
Total Mexican Exports	6.3	6.2	5.8	5.5	6.0	6.2	<b>0.2</b>	▲ 0.4
Implied Daily Storage Activity EIA Reported Daily Storage Activity	-17.9 -17.4	-22.5 -21.7	-17.5 -16.3	-19.3 -18.6	-19.9 -19.1	-27.2	-7.3	
Daily Model Error	-0.5	-0.8	-1.2	-0.7	-0.7			

#### **Monthly Balances**

	2Yr Ago	LY					MTD		
	Jan-19	Jan-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	МоМ	vs. LY
Lower 48 Dry Production	87.2	94.0	88.1	87.5	90.4	91.2	90.9	<b>-0.3</b>	▼ -3.1
Canadian Imports	5.9	4.8	3.8	4.3	4.6	5.8	6.1	<b>0.3</b>	<b>1.3</b>
L48 Power	27.2	30.0	34.3	30.6	24.8	27.4	26.5	<b>—</b> -0.9	▼ -3.5
L48 Residential & Commercial	48.0	41.1	8.8	14.4	22.8	39.2	39.4	<b>A</b> 0.2	<b>T</b> -1.8
L48 Industrial	24.1	24.6	19.2	22.7	24.4	24.9	24.1	<b>-</b> 0.9	▼ -0.5
L48 Lease and Plant Fuel	4.9	5.2	4.9	4.9	5.0	5.1	4.8	<b>V</b> -0.3	<b>V</b> -0.4
L48 Pipeline Distribution	3.4	3.2	2.2	2.3	2.2	3.0	3.0	▼ -0.1	<b>T</b> -0.2
L48 Regional Gas Consumption	107.6	104.1	69.4	74.9	79.2	99.6	97.7	<b>▼ -1.9</b>	▼ -6.4
Net LNG Exports	4.1	8.4	6.0	8.0	10.1	11.0	10.6	▼ -0.4	<b>2.2</b>
Total Mexican Exports	5.0	5.2	6.4	6.2	6.2	6.0	6.2	<b>0.2</b>	<b>0.9</b>
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	-23.6	-18.9	10.1	2.6	-0.6	-19.5	-17.4		

Source: Bloomberg, analytix.ai

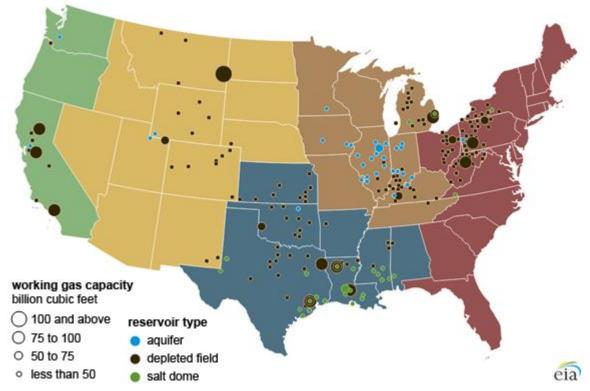


# Regional S/D Models Storage Projection

Week Ending	15-Jan			
			Daily	
			Average	Weekly
		Daily	Storage	Adjusted
	Daily Raw	Adjustment	Activity	Storage
	Storage	Factor	(Adjusted) *	Activity
L48	07 F	1.0		101
L40	-27.5	1.2	-26.3	-184
East	-8.3	1.3	-7.0	-49
		-	-	_
Midwest	-7.5	0.6	-6.9	-48
Mountain	2.0	-3.5	-1.5	-11
South Central	-13.3	3.2	-10.2	-71
Pacific	-0.3	-0.3	-0.6	-4

\*Adjustment Factor is calcuated based on historical regional deltas

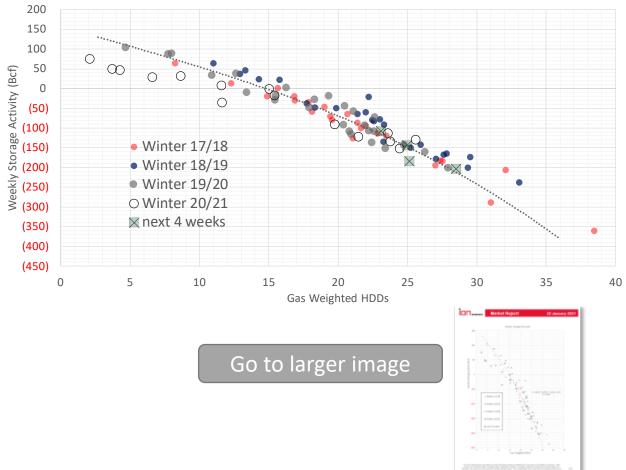
#### U.S. underground natural gas storage facilities by type (July 2015)



# Weather Model Storage Projection

Next report and beyond		
Week Ending	Temp	Week Storage Projection
15-Jan	25.2	-184
22-Jan	23.1	-107
29-Jan	28.5	-203
05-Feb	25.0	-143

## Winter Storage Forecast

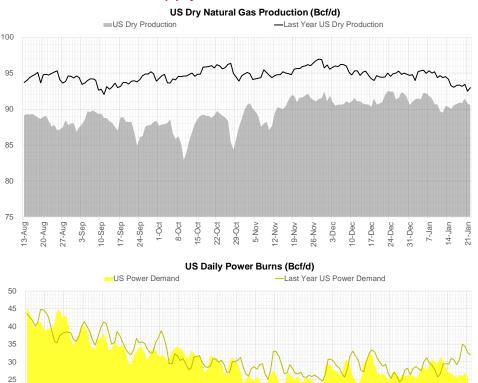


50 12: 400 20: 400 20: 400 27: 400

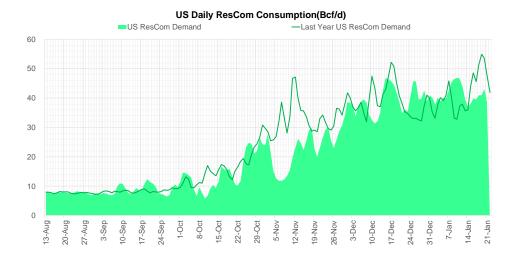
10-Sep

17-Sep 24-Sep 1-Oct 8-Oct 15-Oct 29-Oct 29-Oct 5-Nov 12-Nov 19-Nov 26-Nov 26-Nov 26-Nov

3-Sep



## Supply – Demand Trends

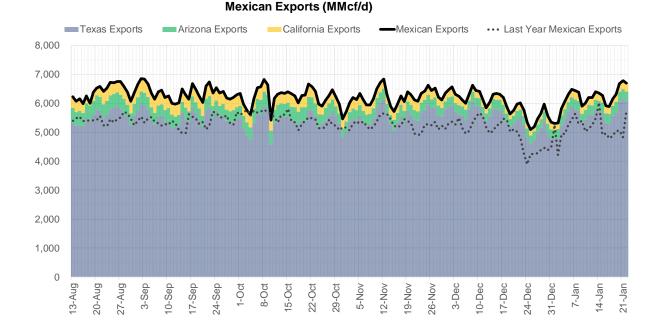


10-Dec 17-Dec 24-Dec 31-Dec 7-Jan

Source: Bloomberg

21-Jan





#### Sabine Pass Exports Cameron Exports Cove Point Exports Elba Exports Everett Exports Freeport Exports Golden Pass Exports Lake Charles Exports Chorpus Christie Import LNG Exports Northeast Exports Neptune Exports 14,000 12,000 10,000 8,000 6,000 4,000 2,000 0 (2,000)25-Dec 2-Jan 3-Jan 4-Jan 5-Jan 7-Jan 8-Jan 9-Jan 26-Dec 27-Dec 28-Dec 29-Dec 30-Dec 31-Dec 1-Jan 6-Jan 10-Jan 11-Jan 12-Jan 13-Jan 14-Jan 15-Jan 16-Jan 17-Jan 24-Dec 18-Jan 19-Jan 20-Jan 22-Jan 21-Jan

Net LNG Exports - Last 30 days (MMcf/d)

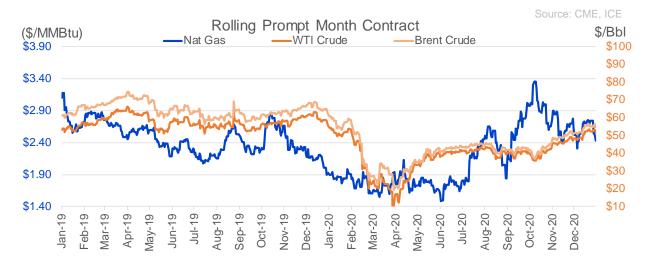


### Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

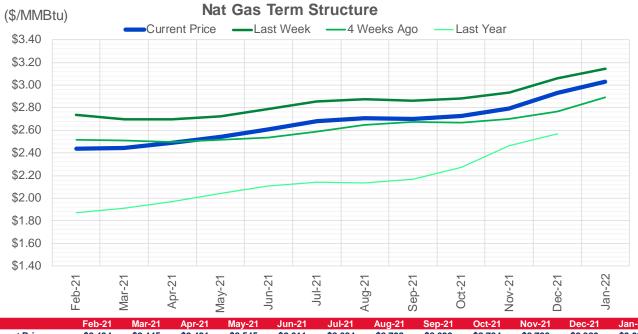
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
4	2021	С	3.00	10981	3	2021	С	3.50	55765
2	2021	Р	2.25	9407	4	2021	С	3.00	46836
4	2021	Р	2.00	7850	3	2021	Р	2.00	42223
3	2021	Р	2.25	7646	3	2021	С	4.00	40241
3	2021	С	3.00	4719	3	2021	С	3.25	40133
3	2021	P	2.00	4534	4	2021	С	4.00	37211
4	2021	C	3.25	3969	3	2021	С	5.00	32196
2	2021	P	2.35	3600	2	2021	С	4.00	31928
4	2021	c	2.75	3273	3	2021	С	3.00	31265
2	2021	P	2.30	3175	2	2021	С	3.00	30062
3	2021	P	2.50	2681	10	2021	С	4.00	29591
2	2021	C	2.65	2531	3	2021	Р	2.50	27137
4	2021	c	2.50	2260	3	2021	С	4.50	27094
4	2021	P	2.30	2069	4	2021	Р	2.00	26853
3	2021	C	3.25	2009	2	2021	Р	2.25	25985
5	2021	c	3.25	1992	2	2021	Р	2.50	25978
		c			10	2021	С	3.25	25088
8	2021	P	3.00	1825	3	2021	C	6.00	24838
5	2021	P	2.40	1804	8	2021	C	4.00	22135
6	2021		2.40	1780	4	2021	c	3.50	22033
7	2021	Р	2.40	1779	3	2021	C	7.00	21565
8	2021	P	2.40	1779	2	2021	C	3.50	20985
9	2021	P	2.40	1779	2	2021	P	2.00	20378
10	2021	Р	2.40	1779	10	2021	C	5.00	19710
4	2021	Р	2.10	1778	5	2021	č	3.00	19192
5	2021	Р	2.10	1750	4	2021	C	2.75	19175
6	2021	Р	2.10	1750	4	2021	P	2.25	19162
7	2021	Р	2.10	1750	4	2021	C	3.25	19121
8	2021	Р	2.10	1750	8	2021	P	2.25	18983
9	2021	Р	2.10	1750	4	2021	C	5.00	18789
10	2021	Р	2.10	1750	6	2021	c	4.00	18213
4	2021	Р	2.25	1669	5	2021	c	3.50	18132
2	2021	С	2.75	1627	10	2021	P	2.00	17942
9	2021	С	3.00	1575	2	2021	c	3.25	17419
7	2021	С	3.00	1501	2	2021	c	5.00	17294
2	2021	С	2.70	1483	7	2021	c	4.00	17155
2	2021	Р	2.40	1482	5	2021	P	2.00	16908
6	2021	С	3.00	1475	5	2021	C	3.25	16235
10	2021	С	3.00	1475	3	2021	P	2.25	15971
3	2021	Р	1.75	1400	4	2021	P	2.50	15788
2	2021	Р	2.45	1238	2	2021	C	4.50	15199
3	2021	С	2.75	1108	4	2021	c	2.50	15079
4	2021	С	4.00	1040	8	2021	P	2.00	14975
11	2021	P	2.00	1000	12	2021	C	4.00	14575
11	2021	P	2.50	1000	5	2021	P	2.50	14669
5	2021	C	3.25	950	10	2021	C	3.00	14656
7	2021	c	3.25	912	4	2021	c	3.00	14508
9	2021	c	3.50	900	10	2022	P	2.50	14508
8	2021	c	3.25	870	5	2021	C	4.00	14361
2	2021	P	2.50	857	10	2021			
2	2021		2.00	001	10	2021	Source	: CME, ICE	10000

Nat Gas Futures Open Interest	
CME, and ICE Combined	

CME Henry H	Hub Futures (1						ent (10,000 MM			
	Current	Prior	Daily Change	FOR JUNE 26	Current	Prior	Daily Change			
FEB 21	32127	45418	-13291	FEB 21	74806	75627	-821			
MAR 21	333138	329776	3362	MAR 21	98385	95270	3115			
APR 21	106890	107205	-315	APR 21	85439	85558	-119			
MAY 21	78459	76634	1825	MAY 21	79193	79339	-146			
JUN 21	44053	44017	36	JUN 21	65255	65325	-70			
JUL 21	47789	45657	2132	JUL 21	65971	66054	-82			
AUG 21	30281	30366	-85	AUG 21	66681	67234	-553			
SEP 21	49393	48835	558	SEP 21	63561	63602	-42			
OCT 21	113015	111549	1466	OCT 21	83422	83623	-201			
NOV 21	40401	41160	-759	NOV 21	51696	51599	98			
DEC 21	41416	41484	-68	DEC 21	53663	53749	-85			
JAN 22	49526	49490	36	JAN 22	53981	53782	199			
FEB 22	25781	25616	165	FEB 22	38692	38758	-66			
MAR 22	28205	27849	356	MAR 22	41225	41190	35			
APR 22	29122	29723	-601	APR 22	39514	39537	-23			
MAY 22	13025	12972	53	MAY 22	34768	34796	-28			
JUN 22	8318	8195	123	JUN 22	33046	33082	-36			
JUL 22	6469	6812	-343	JUL 22	33610	33482	129			
AUG 22	5529	5530	-1	AUG 22	32431	32306	125			
SEP 22	5881	5913	-32	SEP 22	33076	33114	-38			
OCT 22	11640	11306	334	OCT 22	36514	36490	24			
NOV 22	6315	6342	-27	NOV 22	30488	30428	60			
DEC 22	7143	7340	-197	DEC 22	32763	32763	0			
JAN 23	5118	4972	146	JAN 23	17118	16980	138			
FEB 23	1486	1486	0	FEB 23	15908	15793	115			
MAR 23	2598	2496	102	MAR 23	15853	15725	128			
APR 23	3818	3848	-30	APR 23	14212	14392	-180			
MAY 23	2287	2181	106	MAY 23	13830	13560	269			
JUN 23	745	745	0	JUN 23	13418	13387	31			
JUL 23	818	818	0	JUL 23	13110	13078	32			



# **Market Report**



	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
Current Price	\$2.434	\$2.445	\$2.491	\$2.545	\$2.611	\$2.684	\$2.708	\$2.699	\$2.724	\$2.793	\$2.929	\$3.032
Last Week	\$2.737	\$2.696	\$2.695	\$2.724	\$2.787	\$2.856	\$2.874	\$2.860	\$2.879	\$2.933	\$3.058	\$3.147
vs. Last Week	-\$0.303	-\$0.251	-\$0.204	-\$0.179	-\$0.176	-\$0.172	-\$0.166	-\$0.161	-\$0.155	-\$0.140	-\$0.129	-\$0.115
4 Weeks Ago	\$2.518	\$2.512	\$2.498	\$2.518	\$2.535	\$2.587	\$2.651	\$2.677	\$2.671	\$2.701	\$2.768	\$2.893
vs. 4 Weeks Ago	-\$0.084	-\$0.067	-\$0.007	\$0.027	\$0.076	\$0.097	\$0.057	\$0.022	\$0.053	\$0.092	\$0.161	\$0.139
Last Year	\$1.893	\$1.870	\$1.908	\$1.968	\$2.039	\$2.111	\$2.138	\$2.132	\$2.166	\$2.272	\$2.464	\$2.571
vs. Last Year	\$0.541	\$0.575	\$0.583	\$0.577	\$0.572	\$0.573	\$0.570	\$0.567	\$0.558	\$0.521	\$0.465	\$0.461

		Cash	Prompt	Cash to
	Units	Settled	Settle	Prompt
AGT Citygate	\$/MMBtu	2.86	6.08	3.22
TETCO M3	\$/MMBtu	2.43	3.69	1.26
FGT Zone 3	\$/MMBtu	2.50	2.78	0.28
Zone 6 NY	\$/MMBtu	2.50	4.26	1.76
Chicago Citygate	\$/MMBtu	2.42	2.77	0.35
Michcon	\$/MMBtu	2.41	2.61	0.20
Columbia TCO Pool	\$/MMBtu	2.26	2.44	0.18
Ventura	\$/MMBtu	2.40	3.03	0.63
Rockies/Opal	\$/MMBtu	2.49	2.71	0.22
El Paso Permian Basin	\$/MMBtu	2.32	2.61	0.29
Socal Citygate	\$/MMBtu	3.01	3.13	0.12
Malin	\$/MMBtu	2.48	3.04	0.56
Houston Ship Channel	\$/MMBtu	2.43	2.75	0.32
Henry Hub Cash	\$/MMBtu	2.47	2.62	0.15
AECO Cash	C\$/GJ	2.11	2.38	0.27
Station2 Cash	C\$/GJ	2.03	3.17	1.14
Dawn Cash	C\$/GJ	2.39	2.68	0.29

Source: CME, Bloomberg

22 January 2021



					VS	. 4 Weeks		
	Units	<b>Current Price</b>	vs.	Last Week		Ago	vs	. Last Year
NatGas Jan21/Apr21	\$/MMBtu	0.024		-0.204		0.024		0.367
NatGas Mar21/Apr21	\$/MMBtu	0.048		0.049		0.068	▼	-0.168
NatGas Oct21/Nov21	\$/MMBtu	0.069		0.015		0.002		0.003
NatGas Apr21/Oct21	\$/MMBtu	0.233		0.645		0.416	▼	-0.039
WTI Crude	\$/Bbl	51.73		-0.630		3.500	▼	-2.460
Brent Crude	\$/Bbl	54.70		-0.400		3.410	▼	-5.990
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18		0.000		0.000		0.000
Heating Oil	cents/Gallon	155.99		-3.300		6.990	▼	-17.410
Propane, Mt. Bel	cents/Gallon	0.86		-0.043		0.222		0.435
Ethane, Mt. Bel	cents/Gallon	0.23		-0.011		0.031		0.081
Coal, PRB	\$/MTon	12.30		0.000		0.000		0.050
Coal, PRB	\$/MMBtu	0.70						
Coal, ILB	\$/MTon	31.05		0.000		0.000		-4.500
Coal, ILB	\$/MMBtu	1.32						

150 100 0 Weekly Storage Activity (Bcf) 50 00 0 0 0 0 0 (50)  $y = -0.0047x^3 + 0.0373x^2 - 10.214x + 158.1$  $R^2 = 0.9309$ • Winter 17/18 0 (100) • Winter 18/19 ۲ 0 • Winter 19/20  $\cap$ (150) • Winter 20/21 x next 4 weeks (200) (250)0 5 10 15 20 25 30 35 40 Gas Weighted HDDs

Winter Storage Forecast