

### 22 April 2021



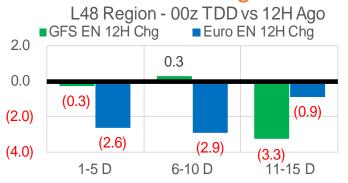
	Cı	urrent	Δ from YD		m 7D vg
WTI Prompt	\$	61.00	<b>\$</b> (0.35)	<b>~</b> \$	(1.9)

	C	urront	Δ from YD	Δ from 7D			
	Curi	urreni		A	vg		
Brent Prompt	¢	64.90	<b>\$</b> (0.43)	<b>2</b>	(1.7)		
Prompt	Φ	04.09	▼ \$ (U.43)	• Φ	(1.7)		

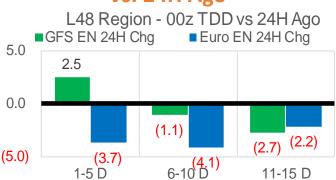
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Price Summary

### Vs. 12H Ago



### Vs. 24H Ago



	Current	Δ from YD	Δ from 7D Avg
US Dry Production	87.6	▼ -2.57	<b>▼</b> -2.94

	Current	Δ from YD	Δ from 7D Avg
US ResComm	27.6	<b>▼</b> -0.67	<b>4</b> .60

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	11.1	<b>-</b> 0.54	<b>▼</b> -0.56

	Current	Δ from YD	Δ from 7D Avg		
US Power Burns	26.0	<b>▼</b> -1.20	<b>a</b> 0.28		

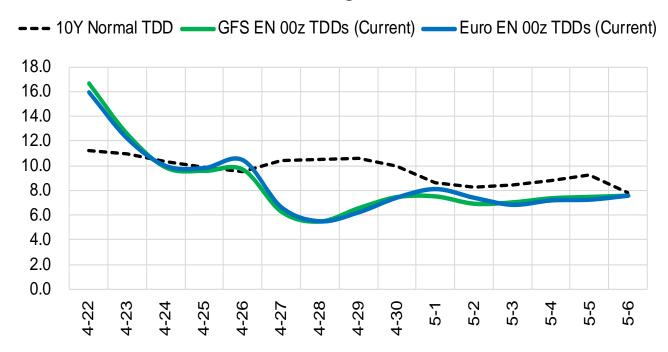
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	5.5	<b>▼</b> -0.18	<b>0.37</b>

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.8	<b>a</b> 0.26	▼ -0.11

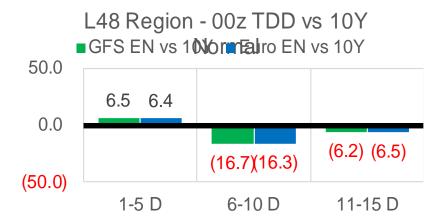


### Short-term Weather Model Outlooks (00z)

### L48 Region



### Vs. 10Y Normal



Source: WSI, Bloomberg



### Lower 48 Component Models

### **Daily Balances**

	16-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr	DoD	vs.7D
Lower 48 Dry Production	91.9	90.4	90.4	90.2	89.6	90.2	87.6	▼ -2.6	▼ -2.8
Canadian Imports	5.3	5.0	5.0	4.9	5.5	5.7	5.5	▼ -0.2	<b>0.3</b>
L48 Power	24.9	24.5	24.9	25.5	27.1	27.2	26.0	▼ -1.2	<b>0.3</b>
L48 Residential & Commercial	24.4	22.3	19.4	20.2	23.1	28.3	27.6	▼ -0.7	<b>4.7</b>
L48 Industrial	19.1	18.5	18.0	18.0	18.7	19.3	19.8	<b>0.5</b>	<b>1.2</b>
L48 Lease and Plant Fuel	5.1	5.0	5.0	5.0	4.9	5.0	4.8	▼ -0.1	▼ -0.2
L48 Pipeline Distribution	2.4	2.3	2.2	2.2	2.5	2.7	2.6	▼ -0.1	<b>0.2</b>
L48 Regional Gas Consumption	75.9	72.5	69.4	70.9	76.3	82.6	80.9	▼ -1.6	<b>▲</b> 6.3
Net LNG Delivered	11.58	11.70	11.92	11.82	11.46	11.66	11.13	▼ -0.5	▼ -0.6
Total Mexican Exports	7.5	6.9	6.4	7.0	6.7	6.5	6.8	<b>0.3</b>	▼ 0.0
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	2.2	4.4	7.6	5.3	0.7	-4.8	-5.7		

### **EIA Storage Week Balances**

	12-Mar	19-Mar	26-Mar	2-Apr	9-Apr	16-Apr	WoW	vs. 4W
Lower 48 Dry Production	91.8	91.8	92.0	92.5	92.1	91.4	▼ -0.7	▼ -0.7
Canadian Imports	4.7	5.0	4.5	4.5	4.2	4.3	<b>△</b> 0.1	▼ -0.3
L48 Power	24.9	24.9	24.1	24.6	23.2	24.6	<b>1.4</b>	<b>0.4</b>
L48 Residential & Commercial	30.2	30.3	24.9	23.3	18.5	18.5	▼ 0.0	▼ -5.8
L48 Industrial	18.6	21.2	20.3	21.2	22.1	19.8	<b>▼</b> -2.3	<b>▼</b> -1.4
L48 Lease and Plant Fuel	5.1	5.1	5.1	5.1	5.1	5.0	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	2.6	2.6	2.3	2.3	2.1	2.1	<b>0.1</b>	<b>▼</b> -0.2
L48 Regional Gas Consumption	81.4	84.1	76.7	76.4	70.9	70.1	▼ -0.9	▼ -6.9
Net LNG Exports	10.6	11.2	11.6	11.7	11.5	11.4	▼ -0.1	▼ -0.1
Total Mexican Exports	6.5	6.3	6.6	6.4	6.2	7.3	<b>1.1</b>	<b>0.9</b>
Implied Daily Storage Activity	-1.9	-4.8	1.6	2.4	7.6	6.9	-0.7	
EIA Reported Daily Storage Activity	-1.6	-4.6	2.0	2.9	8.7			
Daily Model Error	-0.4	-0.2	-0.4	-0.4	-1.1			

Monthly Balances									
•	2Yr Ago	LY					MTD		
	Apr-19	Apr-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	MoM	vs. LY
Lower 48 Dry Production	89.1	91.9	91.0	90.5	85.1	92.0	91.2	▼ -0.7	<b>▲ 0.7</b>
Canadian Imports	4.6	4.0	5.8	6.3	6.4	4.7	4.6	▼ -0.1	▼ -1.6
L48 Power	24.6	25.6	28.0	28.1	27.8	25.0	24.6	▼ -0.4	▼ -3.5
L48 Residential & Commercial	19.1	20.5	40.0	43.8	47.7	28.3	20.8	<b>▼</b> -7.5	<b>▼</b> -23.0
L48 Industrial	21.4	19.8	23.3	23.5	22.1	20.1	20.3	<b>0.2</b>	▼ -3.1
L48 Lease and Plant Fuel	4.9	5.1	5.0	5.1	4.7	5.1	5.0	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	2.2	2.3	3.1	3.2	3.4	2.5	2.2	▼ -0.3	<b>▼</b> -1.0
L48 Regional Gas Consumption	72.3	73.2	99.4	103.7	105.7	81.0	73.0	▼ -8.0	▼-30.7
Net LNG Exports	4.5	8.2	11.0	10.5	8.4	11.1	11.5	<b>△</b> 0.4	<b>1.0</b>
Total Mexican Exports	4.7	4.8	5.8	6.2	5.7	6.5	6.7	<b>0.3</b>	<b>0.6</b>
Implied Daily Storage Activity EIA Reported Daily Storage Activity	12.3	9.6	-19.5	-23.5	-28.3	-1.9	4.6		
Daily Model Error									

Source: Bloomberg, analytix.ai



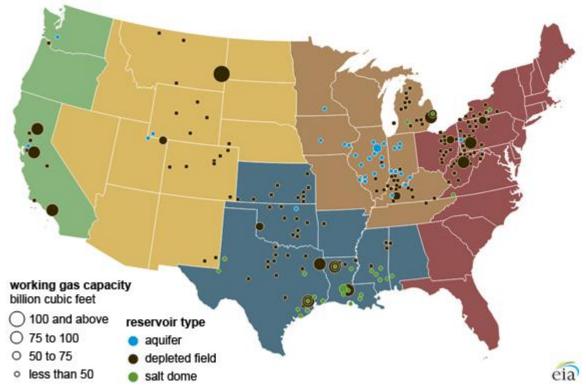
### Regional S/D Models Storage Projection

Week Ending 16-Apr

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	6.6	1.1	7.7	54
East	0.8	2.3	3.0	21
Midwest	2.1	-0.1	2.0	14
Mountain	3.1	-2.8	0.3	2
South Central	-0.6	2.2	1.7	12
Pacific	1.2	-0.4	0.8	5

<sup>\*</sup>Adjustment Factor is calcuated based on historical regional deltas

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



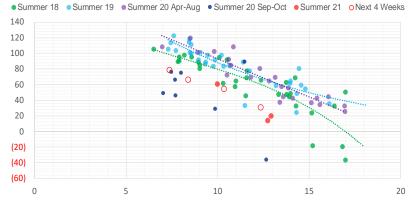


### Weather Model Storage Projection

# Next report and beyond

Week Ending	GWDDs	Week Storage Projection
16-Apr	10.4	54
23-Apr	12.4	30
30-Apr	8.4	66
07-May	7.4	78

### Weather Storage Model - Next 4 Week Forecast



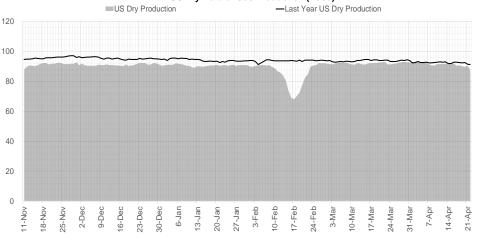
Go to larger image



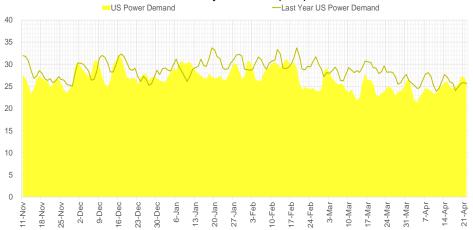


### Supply - Demand Trends

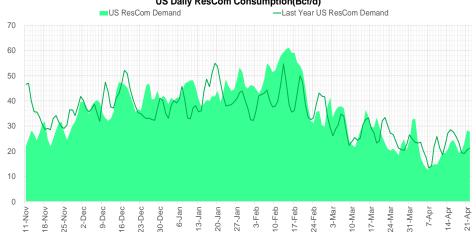
### US Dry Natural Gas Production (Bcf/d)



### US Daily Power Burns (Bcf/d)



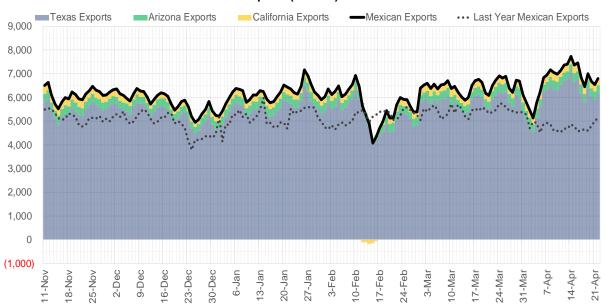
### US Daily ResCom Consumption(Bcf/d)



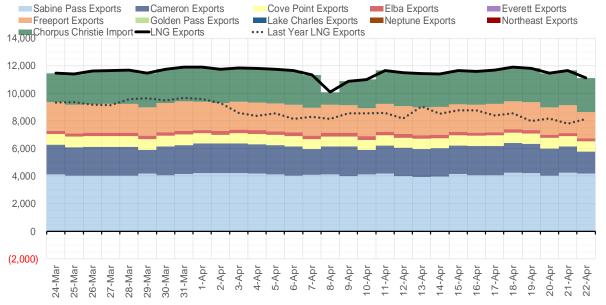
Source: Bloomberg



### Mexican Exports (MMcf/d)



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



Source: Bloomberg



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

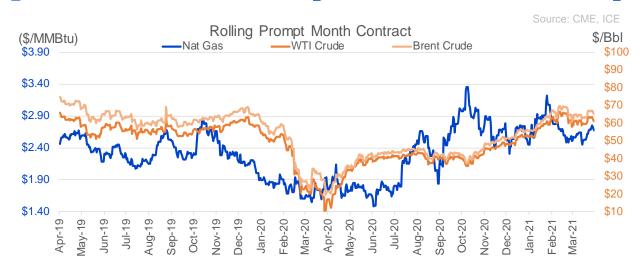
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
		<u> </u>	0.05		10	2021	С	4.00	20000
6	2021	С	3.25	7262					38898
6	2021	P	2.50	5230	5 8	2021 2021	C C	3.00 4.00	34377
6	2021	С	3.00	4577			P		33933
5	2021	C	2.80	2979	5	2021		2.50	31120
5	2021	Р	2.60	2800	10	2021	С	3.25	29669
5	2021	С	2.85	2697	6	2021	P	2.50	29276
7	2021	С	3.50	2503	7	2021	С	4.00	28238
5	2021	Р	2.50	2308	8	2021	С	3.50	28056
6	2021	С	3.10	2202	6	2021	С	4.00	27953
6	2021	Р	2.40	2062	10	2021	С	5.00	26339
6	2021	С	3.05	1946	5	2021	С	3.50	25933
8	2021	С	3.50	1900	5	2021	P	2.00	25423
7	2021	Р	2.50	1653	6	2021	С	3.00	24906
5	2021	С	2.75	1606	5	2021	C	3.25	24854
10	2021	С	3.50	1550	5	2021	С	4.00	24706
5	2021	С	2.70	1522	5	2021	Р	2.25	24000
6	2021	Р	2.60	1512	10	2021	С	3.50	23382
4	2022	Р	2.50	1500	8	2021	С	3.25	23348
5	2021	P	2.55	1332	7	2021	С	3.25	22326
6	2021	C	3.50	1319	5	2021	С	2.75	21711
6	2021	P	2.65	1254	6	2021	С	3.25	20450
7	2021	P	2.60	1187	10	2021	С	3.00	19946
5	2021	r P	2.65	1186	6	2021	С	3.50	19427
7	2021	C	3.10	1058	5	2021	Р	2.40	19413
					9	2021	С	3.50	19189
5	2021	C P	2.90	1051	6	2021	Р	2.25	19082
7	2021		2.70	1003	7	2021	С	3.50	18967
10	2021	С	3.00	1001	4	2022	С	3.00	18712
7	2021	С	3.60	1000	8	2021	Р	2.25	18640
8	2021	С	3.10	1000	7	2021	Р	2.50	18341
8	2021	C	3.60	1000	10	2021	Р	2.50	18341
9	2021	С	3.10	1000	8	2021	Р	2.50	18220
10	2021	С	3.10	1000	10	2021	Р	2.00	18110
8	2021	Р	2.75	950	10	2021	Р	2.25	17977
10	2021	С	3.25	950	9	2021	P	2.00	17769
4	2022	С	3.00	812	6	2021	P	2.00	17058
7	2021	С	3.25	782	8	2021	C	3.00	17036
8	2021	С	3.25	780	12	2021	Ċ	4.00	16790
9	2021	Р	2.75	750	11	2021	Ċ	4.00	16626
12	2021	С	3.50	750	6	2021	Ċ	2.75	16147
6	2021	Р	2.25	718	5	2021	P	2.60	16009
10	2021	Р	2.50	702	7	2021	Ċ	3.00	15886
7	2021	P	2.75	700	6	2021	Č	3.75	15649
5	2021	P	2.40	672	7	2021	P	2.00	15536
6	2021	Ċ	2.95	613	8	2021	P	2.00	15255
7	2021	Č	3.00	602	9		C		
10	2021	P	2.75	600	9 12	2021	P	4.00	14220
7	2021	P	2.75	569	12 9	2021	P P	2.00	13951
8		P P				2021		1.90	13733
	2021	C	2.40	561	9	2021	С	3.25	13710
6	2021	C	2.90	546	3	2022	C Source	: CME, ICE	13675



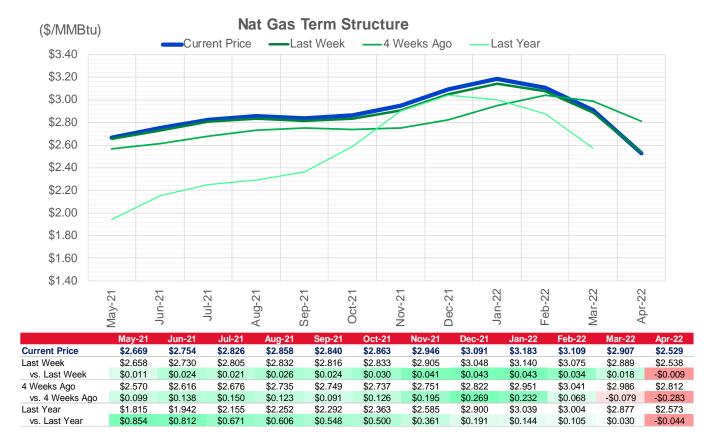
### Nat Gas Futures Open Interest

CME, and ICE Combined

CME Henry Hub Futures (10,000 MMBtu) ICE Henry Hub Futures Contract Equivalent (10,000 MMBtu							
	Current	Prior	Daily Change	FOR JUNE 26	Current	Prior	Daily Change
MAY 21	61506	85916	-24410	MAY 21	79464	79753	-289
JUN 21	178117	169775	8342	JUN 21	80418	79021	1398
JUL 21	185762	184873	889	JUL 21	88434	87913	521
AUG 21	73652	72353	1299	AUG 21	78260	78145	115
SEP 21	107100	105983	1117	SEP 21	68405	68480	-74
OCT 21	126670	125725	945	OCT 21	84817	84516	301
NOV 21	64935	65118	-183	NOV 21	60293	60585	-292
DEC 21	45051	45410	-359	DEC 21	59049	59091	-43
JAN 22	68296	68067	229	JAN 22	62798	62329	469
FEB 22	22449	22556	-107	FEB 22	45918	45868	50
MAR 22	43002	42621	381	MAR 22	50912	50798	114
APR 22	49169	49020	149	APR 22	47108	46844	264
MAY 22	26445	26498	-53	MAY 22	40493	40409	83
JUN 22	14277	14246	31	JUN 22	39230	39033	197
JUL 22	9256	9242	14	JUL 22	38801	38603	198
AUG 22	8685	8668	17	AUG 22	38072	38001	72
SEP 22	9132	9145	-13	SEP 22	38942	38857	85
OCT 22	21516	21289	227	OCT 22	44319	44224	95
NOV 22	10376	10372	4	NOV 22	34833	34757	76
DEC 22	9435	9457	-22	DEC 22	39134	39096	38
JAN 23	5357	5145	212	JAN 23	21683	21599	84
FEB 23	2422	2422	0	FEB 23	20378	20315	63
MAR 23	4842	4840	2	MAR 23	21873	21812	61
APR 23	5477	5477	0	APR 23	18058	18312	-254
MAY 23	4436	4432	4	MAY 23	18032	17914	119
JUN 23	957	951	6	JUN 23	16560	16464	96
JUL 23	1076	1080	-4	JUL 23	16489	16453	37
AUG 23	753	754	-1	AUG 23	16664	16602	62
SEP 23	620	619	1	SEP 23	16085	16062	24
OCT 23	1716	1715	1	OCT 23	16761	16761	0







		Cash	Prompt	Cash to
	Units	Settled	Settle	Prompt
AGT Citygate	\$/MMBtu	4.50	2.24	-2.27
TETCO M3	\$/MMBtu	2.50	2.06	-0.44
FGT Zone 3	\$/MMBtu	2.57	2.71	0.14
Zone 6 NY	\$/MMBtu	2.57	1.97	-0.60
Chicago Citygate	\$/MMBtu	2.67	2.58	-0.09
Michcon	\$/MMBtu	2.60	2.57	-0.03
Columbia TCO Pool	\$/MMBtu	2.35	2.20	-0.15
Ventura	\$/MMBtu	2.71	2.51	-0.20
Rockies/Opal	\$/MMBtu	2.73	2.48	-0.25
El Paso Permian Basin	\$/MMBtu	2.49	2.51	0.02
Socal Citygate	\$/MMBtu	3.60	2.80	-0.80
Malin	\$/MMBtu	2.73	2.66	-0.07
Houston Ship Channel	\$/MMBtu	2.81	2.70	-0.12
Henry Hub Cash	\$/MMBtu	2.64	2.54	-0.10
AECO Cash	C\$/GJ	2.31	2.18	-0.13
Station2 Cash	C\$/GJ	2.26	2.50	0.24
Dawn Cash	C\$/GJ	2.61	2.58	-0.03

Source: CME, Bloomberg



					vs. 4 Weeks			
	Units	<b>Current Price</b>	vs.	<b>Last Week</b>		Ago	VS	. Last Year
NatGas Jul21/Oct21	\$/MMBtu	0.037		0.009		0.021		0.044
NatGas Oct21/Nov21	\$/MMBtu	0.083		0.011		0.012		0.043
NatGas Oct21/Jan22	\$/MMBtu	0.320		0.013		0.030		0.044
NatGas Apr22/Oct22	\$/MMBtu	0.047		0.016		0.002		0.001
WTI Crude	\$/Bbl	61.00		-2.460		2.440		44.500
Brent Crude	\$/Bbl	64.89		-2.050		2.940		43.560
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18		0.000		0.000		0.000
Heating Oil	cents/Gallon	184.90		-4.990		10.120		111.450
Propane, Mt. Bel	cents/Gallon	0.80		-0.017		-0.118		0.471
Ethane, Mt. Bel	cents/Gallon	0.23		0.002		0.015		0.103
Coal, PRB	\$/MTon	12.30		0.000		0.000		0.000
Coal, PRB	\$/MMBtu	0.70						
Coal, ILB	\$/MTon	31.05		0.000		0.000		0.000
Coal, ILB	\$/MMBtu	1.32						



### Weather Storage Model - Next 4 Week Forecast

