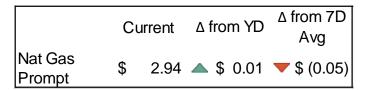


21 May 2021



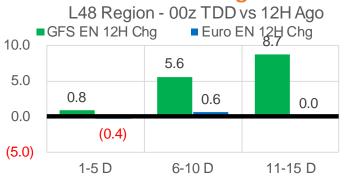
	С	urrent	Δf	ro	m YD		m 7D vg
WTI Prompt	\$	63.14		\$	1.09	~ \$	(1.6)

	Cui	Current Δ from YD				m 7D
	Cui	TOTIL	ם וווטוו זם		P	Avg
Brent Prompt	\$ 6	66.23	A 9	\$ 1.12	* \$	(1.8)

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Price Summary

Vs. 12H Ago



Vs. 24H Ago

L48 Region - 00z TDD vs 24H Ago GFS EN 24H Chg ■ Euro EN 24H Chg 15.0 12.5 10.0 5.8 5.0 3.0 1.2 0.0 (1.5) (0.3) (5.0)1-5 D 6-10 D 11-15 D

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	91.2	- 0.46	▼ -0.34

	Current	Δ from YD	Δ from 7D Avg
US ResComm	9.3	▼ -0.17	▼ -1.07

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	11.2	0.15	a 0.70

	Current	Δ from YD	Δ from 7D Avg		
US Power Burns	28.3	▼ -0.92	1.73		

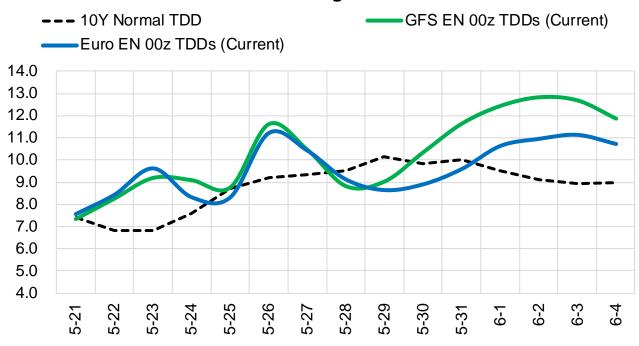
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.3	- 0.47	▼ -0.26

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	7.1	0.13	0.34

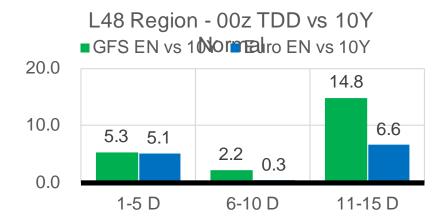


Short-term Weather Model Outlooks (00z)

L48 Region



Vs. 10Y Normal



Source: WSI, Bloomberg



Lower 48 Component Models

Daily Balances

	15-May	16-May	17-May	18-May	19-May	20-May	21-May	DoD	vs. 7D
Lower 48 Dry Production	92.1	91.8	91.9	90.8	91.1	91.7	91.2	▼-0.5	▼ -0.3
Canadian Imports	4.3	4.3	4.4	4.5	4.9	4.8	4.3	▼ -0.5	▼ -0.2
L48 Power	23.9	24.5	26.7	27.6	28.7	29.2	28.3	▼-0.9	1.5
L48 Residential & Commercial	11.7	10.2	10.0	9.0	8.9	9.4	9.3	▼-0.2	▼-0.6
L48 Industrial	19.6	19.8	20.3	20.4	20.6	20.9	21.4	0.5	1.1
L48 Lease and Plant Fuel	5.0	5.0	5.0	5.0	5.0	5.0	5.0	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	1.8	1.8	1.9	1.9	1.9	2.0	1.9	▼ -0.1	0.0
L48 Regional Gas Consumption	62.2	61.4	64.0	63.8	65.1	66.6	65.9	▼ -0.7	2.0
Net LNG Delivered	10.98	10.80	10.28	9.89	10.42	11.03	11.18	0.2	0.6
Total Mexican Exports	6.2	6.3	6.7	7.1	7.1	7.0	7.1	0.1	a 0.3
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	17.0	17.6	15.3	14.4	13.4	11.9	11.4		

EIA Storage Week Balances

	16-Apr	23-Apr	30-Apr	7-May	14-May	21-May	WoW	vs. 4W
Lower 48 Dry Production	91.7	90.9	91.5	91.6	91.7	91.6	▼ -0.2	0.1
Canadian Imports	4.3	5.3	4.6	4.6	4.8	4.6	▼-0.3	▼-0.3
L48 Power	24.6	25.7	26.4	26.5	25.9	26.6	0.7	0.4
L48 Residential & Commercial	18.6	24.0	16.5	13.6	18.0	10.3	▼ -7.7	▼-7.7
L48 Industrial	21.0	19.8	20.1	20.4	18.2	20.1	1.9	0.5
L48 Lease and Plant Fuel	5.0	5.0	5.0	5.0	5.0	5.0	▼ 0.0	0.0
L48 Pipeline Distribution	2.1	2.5	2.1	2.0	2.2	1.9	- 0.4	▼-0.3
L48 Regional Gas Consumption	71.4	77.0	70.1	67.6	69.3	63.9	▼ -5.4	▼-7.1
Net LNG Exports	11.4	11.6	11.4	11.3	11.0	10.5	▼ -0.5	▼-0.9
Total Mexican Exports	7.3	6.8	6.7	6.7	6.8	6.7	▼ 0.0	▲ 0.0
Implied Daily Storage Activity	6.0	0.9	7.9	10.6	9.4	15.0	5.6	
EIA Reported Daily Storage Activity	5.4	2.1	8.6	10.1	10.1			
Daily Model Error	0.6	-1.2	-0.6	0.5	-0.7			

Monthly Balances									
	2Yr Ago	LY					MTD		
	May-19	May-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	MoM	vs. LY
Lower 48 Dry Production	90.6	87.3	91.6	84.7	91.7	91.7	91.6	▼ 0.0	7.0
Canadian Imports	4.7	3.9	6.3	6.4	4.8	4.7	4.6	▼ 0.0	▼-1.8
L48 Power	26.9	26.9	28.2	27.9	25.1	25.1	26.4	1.3	▼ -1.5
L48 Residential & Commercial	12.8	12.7	43.9	47.9	28.4	19.7	13.7	▼ -6.0	▼ -34.2
L48 Industrial	23.1	19.7	24.3	21.6	19.7	20.7	19.6	▼ -1.1	▼ -2.0
L48 Lease and Plant Fuel	5.0	4.8	5.0	4.7	5.0	5.0	5.0	0.0	0.3
L48 Pipeline Distribution	2.1	2.0	3.2	3.3	2.5	2.2	2.1	▼ -0.2	▼ -1.2
L48 Regional Gas Consumption	69.9	66.2	104.7	105.4	80.7	72.7	66.8	▼ -5.9	▼-38.5
Net LNG Exports	5.6	6.7	10.5	8.4	11.1	11.5	10.9	▼ -0.6	2.5
Total Mexican Exports	5.0	4.8	6.2	5.7	6.5	6.7	6.7	▲ 0.0	1.0
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	14.8	13.6	-23.5	-28.5	-1.9	5.4	11.8		

Source: Bloomberg, analytix.ai



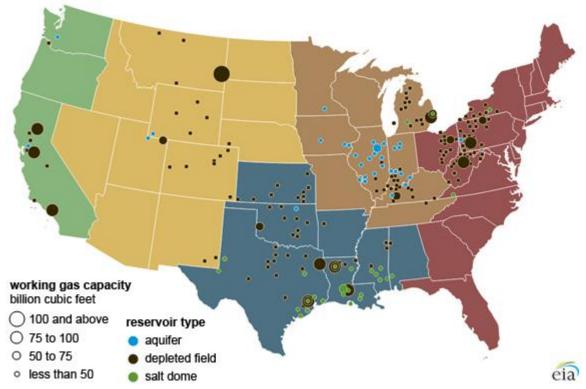
Regional S/D Models Storage Projection

Week Ending 21-May

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	14.7	0.9	15.5	109
East	2.7	8.0	3.5	25
Midwest	4.7	0.1	4.8	34
Mountain	4.3	-3.3	1.0	7
South Central	1.3	3.5	4.8	34
Pacific	1.7	-0.3	1.4	10

^{*}Adjustment Factor is calcuated based on historical regional deltas

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



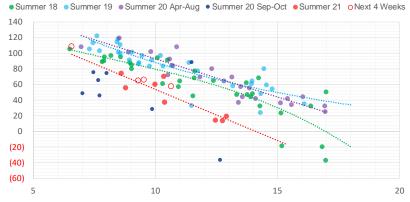


Weather Model Storage Projection

Next report
and beyond

Week Ending	GWDDs	Week Storage Projection
21-May	6.6	109
28-May	9.3	65
04-Jun	10.7	58
11-Jun	9.5	66

Weather Storage Model - Next 4 Week Forecast



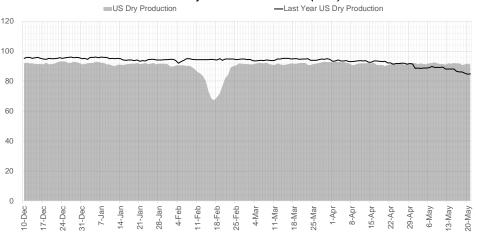
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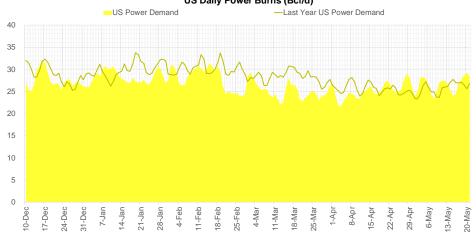


Supply - Demand Trends

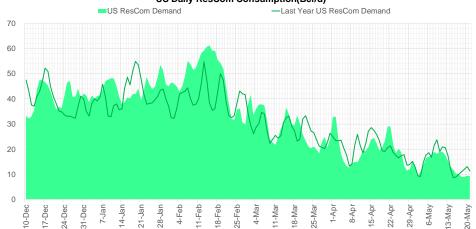
US Dry Natural Gas Production (Bcf/d)



US Daily Power Burns (Bcf/d)



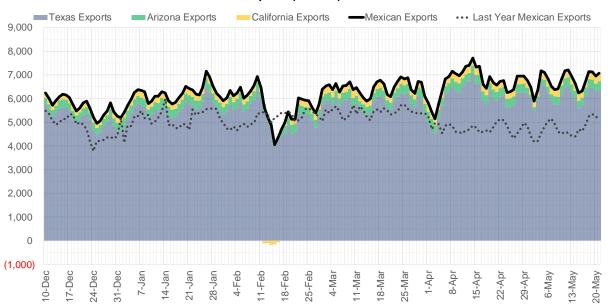
US Daily ResCom Consumption(Bcf/d)



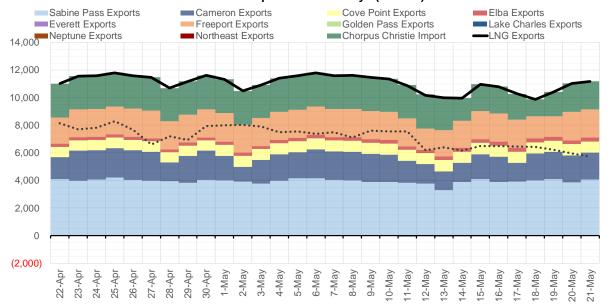
Source: Bloomberg



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

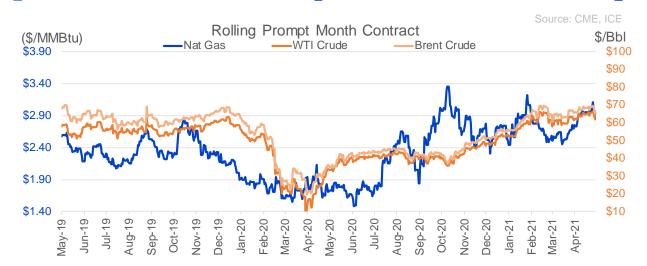
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
8	2021	С	3.50	4390	10	2021	С	4.00	40713
10	2021	P	2.25	3118	6	2021	P	2.75	34647
6	2021	C	3.00	3030	8	2021	C	3.50	33507
10	2021	P	2.50	2923	6	2021	Ċ	3.25	31490
8	2021	C	3.75	2154	9	2021	Ċ	4.00	31343
7	2021	Č	3.25	2011	6	2021	P	2.50	29821
6	2021	P	2.90	1968	8	2021	C	4.00	29758
8	2021	C	3.25	1872	10	2021	C	3.25	28884
6	2021	P	2.75	1866	6	2021	C	4.00	27924
7	2021	P	3.00	1789	10	2021	С	5.00	27259
7	2021	' P	2.75	1749	7	2021	С	4.00	26857
7	2021	C	3.50	1735	10	2021	Р	2.50	26313
9	2021	Č	3.50	1684	6	2021	С	3.50	26258
9	2021	Č	3.25	1628	10	2021	С	3.50	25540
6	2021	P	2.85	1482	8	2021	С	3.25	24194
6	2021	C	3.05	1459	7	2021	С	3.50	23807
1	2022	Č	6.00	1450	6	2021	С	3.00	23779
1	2022	C	9.00	1450	9	2021	С	3.50	22224
2	2022	C	6.00	1450	7	2021	Р	2.50	21859
2	2022	C	9.00	1450	7	2021	С	3.25	21789
3	2022	C	6.00	1450	12	2021	С	4.00	20762
3	2022	C	9.00	1450	8	2021	Р	2.50	20359
3 1	2022	P	3.00	1400	9	2021	Р	2.00	20142
7	2022	C	3.00	1391	6	2021	Р	2.70	20118
6		C			6	2021	Р	2.90	19911
7	2021 2021	C	3.25 3.20	1304 1285	4	2022	С	3.00	19629
		C			8	2021	Р	2.25	19347
11 10	2021 2021		3.75 3.75	1250	10	2021	С	3.00	19262
6		C C		1186	6	2021	Р	2.25	19089
6	2021 2021	C	2.95	1152	6	2021	Р	2.65	19026
			3.10	1144	11	2021	С	4.00	18417
9	2021	P	2.50	1106	10	2021	Р	2.00	18388
8	2021	P	2.75	1035	9	2021	Р	2.50	18287
9 6	2021	C C	3.45	1028	7	2021	Р	2.75	18024
6	2021 2021	P	2.90 2.80	987	8	2021	Р	2.00	17663
6 7	2021	C	2.80 3.15	910 903	10	2021	Р	2.25	17424
		P			6	2021	Р	2.00	17062
6 7	2021	P P	3.00	854	3	2022	С	4.00	16995
	2021	-	2.80	807	8	2021	С	3.75	16734
7	2021	P	2.70	771	9	2021	С	3.25	16676
12	2021	C P	3.75	751	7	2021	С	3.00	16656
9	2021		2.75	704	6	2021	С	3.05	16428
7	2021	P	2.85	702	7	2021	Р	2.65	16245
8	2021	P	2.35	627	8	2021	C	3.00	16129
8	2021	P	2.50	627	7	2021	P	2.00	16035
7	2021	С	3.35	605	6	2021	C	3.75	15823
10	2021	С	3.50	530	6	2021	P	2.85	15143
11	2021	С	5.00	503	6	2021	С	2.75	15022
8	2021	С	3.20	501	8	2021	P	2.75	14550
8	2021	С	3.35	500	3	2022	C Source	: CME, ICE	14519



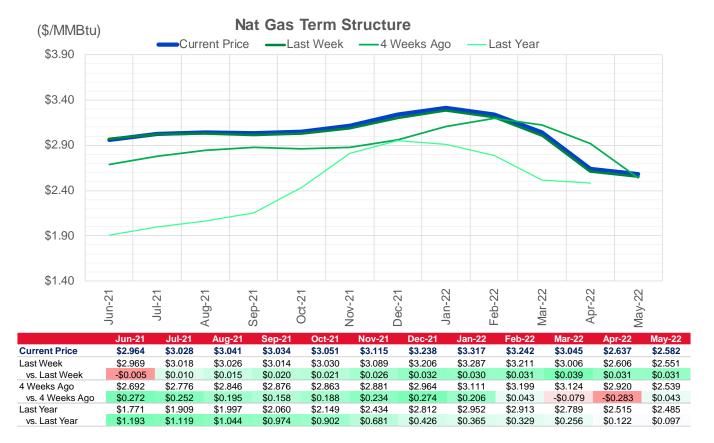
Nat Gas Futures Open Interest

CME, and ICE Combined

CME Henry	Hub Futures (1	0,000 MMBt	J)	ICE Henry Hul	o Futures Co	ntract Equiva	ent (10,000 MM
	Current	Prior		FOR JUNE 26	Current	Prior	Daily Change
JUN 21	38712	61338	-22626	JUN 21	83158	81815	1344
JUL 21	290285	285775	4510	JUL 21	92818	96315	-3497
AUG 21	76802	72440	4362	AUG 21	79633	79121	512
SEP 21	122423	121678	745	SEP 21	76222	73528	2694
OCT 21	132472	133223	-751	OCT 21	92275	92040	235
NOV 21	74346	73976	370	NOV 21	69015	68683	332
DEC 21	49702	50750	-1048	DEC 21	64451	62637	1814
JAN 22	83626	84773	-1147	JAN 22	71038	71190	-152
FEB 22	29569	29064	505	FEB 22	55051	54657	394
MAR 22	57370	57926	-556	MAR 22	60203	59688	515
APR 22	54701	54919	-218	APR 22	52160	52075	85
MAY 22	37169	37350	-181	MAY 22	47017	46905	112
JUN 22	20825	20694	131	JUN 22	43270	43219	51
JUL 22	11373	11407	-34	JUL 22	43579	43392	187
AUG 22	10171	10164	7	AUG 22	41661	41588	74
SEP 22	10967	11187	-220	SEP 22	42554	42518	36
OCT 22	27903	27777	126	OCT 22	47102	47487	-385
NOV 22	11535	11575	-40	NOV 22	37900	37862	38
DEC 22	11096	11127	-31	DEC 22	41903	41822	82
JAN 23	5625	5578	47	JAN 23	24520	24431	89
FEB 23	2636	2604	32	FEB 23	22310	22306	4
MAR 23	5370	5323	47	MAR 23	24159	24113	47
APR 23	5732	5710	22	APR 23	19924	19853	71
MAY 23	4696	4695	1	MAY 23	19771	19675	96
JUN 23	966	964	2	JUN 23	18261	18175	86
JUL 23	1089	1099	-10	JUL 23	18267	18218	48
AUG 23	846	836	10	AUG 23	18368	18320	48
SEP 23	762	762	0	SEP 23	17753	17706	48
OCT 23	1717	1649	68	OCT 23	18445	18377	69
NOV 23	608	607	1	NOV 23	18082	18056	26







		Cash	Prompt	Cash to
	Units	Settled	Settle	Prompt
AGT Citygate	\$/MMBtu	2.75	2.34	-0.41
TETCO M3	\$/MMBtu	2.41	2.30	-0.11
FGT Zone 3	\$/MMBtu	2.47	3.05	0.58
Zone 6 NY	\$/MMBtu	2.47	2.28	-0.19
Chicago Citygate	\$/MMBtu	2.78	2.85	0.07
Michcon	\$/MMBtu	2.81	2.79	-0.02
Columbia TCO Pool	\$/MMBtu	2.56	2.43	-0.13
Ventura	\$/MMBtu	2.81	2.80	-0.01
Rockies/Opal	\$/MMBtu	2.80	2.79	-0.01
El Paso Permian Basin	\$/MMBtu	2.75	2.86	0.11
Socal Citygate	\$/MMBtu	3.19	3.53	0.34
Malin	\$/MMBtu	2.91	3.02	0.11
Houston Ship Channel	\$/MMBtu	2.86	3.07	0.21
Henry Hub Cash	\$/MMBtu	2.88	2.82	-0.06
AECO Cash	C\$/GJ	2.59	2.51	-0.08
Station2 Cash	C\$/GJ	2.55	2.89	0.34
Dawn Cash	C\$/GJ	2.79	2.78	-0.01

Source: CME, Bloomberg



					VS	s. 4 Weeks		
	Units	Current Price	vs.	Last Week		Ago	VS	s. Last Year
NatGas Jul21/Oct21	\$/MMBtu	0.023		0.011		-0.012		0.021
NatGas Oct21/Nov21	\$/MMBtu	0.064		0.005	•	-0.019		0.014
NatGas Oct21/Jan22	\$/MMBtu	0.266		0.009		-0.052		-0.029
NatGas Apr22/Oct22	\$/MMBtu	0.027		0.002		-0.010		-0.026
WTI Crude	\$/Bbl	63.36		-2.720		2.010		29.870
Brent Crude	\$/BbI	66.66		-2.660		1.340		30.910
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18		0.000		0.000		0.000
Heating Oil	cents/Gallon	200.71		-6.240		15.340		101.650
Propane, Mt. Bel	cents/Gallon	0.82		0.008		0.017		0.403
Ethane, Mt. Bel	cents/Gallon	0.26		0.004		0.028		0.038
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

