

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.60	▼ \$ (0.06)	▲ \$ 0.03

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 43.46	▲ \$ 0.49	▲ \$ 0.4

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 46.40	▲ \$ 1.35	▲ \$ 1.1

### Page Menu

- [Short-term Weather Model Outlooks](#)
- [Lower 48 Component Models](#)
- [Regional S/D Models Storage Projection](#)
- [Weather Model Storage Projection](#)
- [Supply – Demand Trends](#)
- [Nat Gas Options Volume and Open Interest](#)
- [Nat Gas Futures Open Interest](#)
- [Price Summary](#)

### 00z GWDD Change

Cooler Change

Warmer Change

ECMWF Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	2.2	4.2	2.6	9.0
24 Hr Chg	2.3	5.7	3.6	11.6

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	3.1	1.4	11.4	15.9
24 Hr Chg	0.0	-1.8	8.2	6.4

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	84.3	▼ -1.18	▼ -0.89

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	37.5	▲ 2.68	▼ -3.20

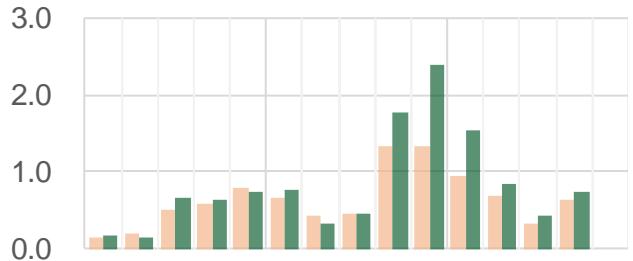
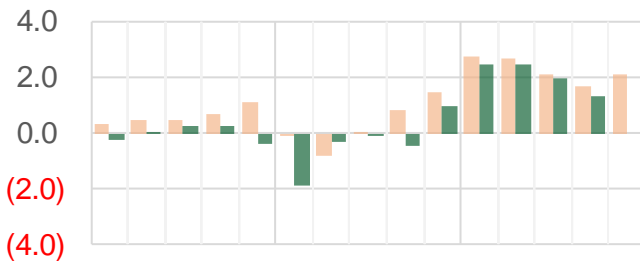
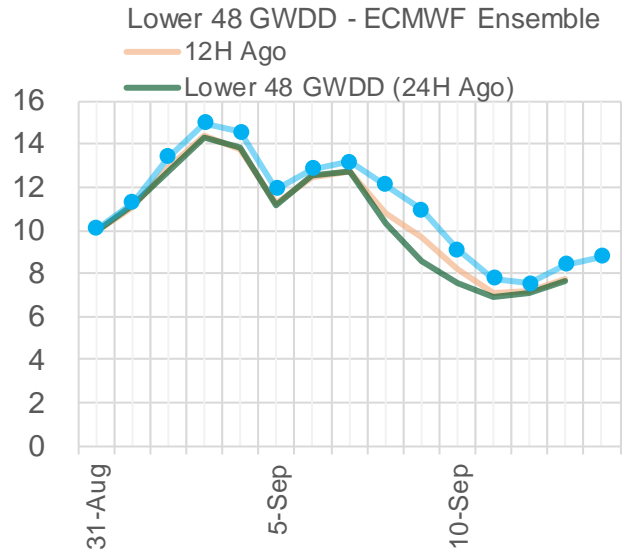
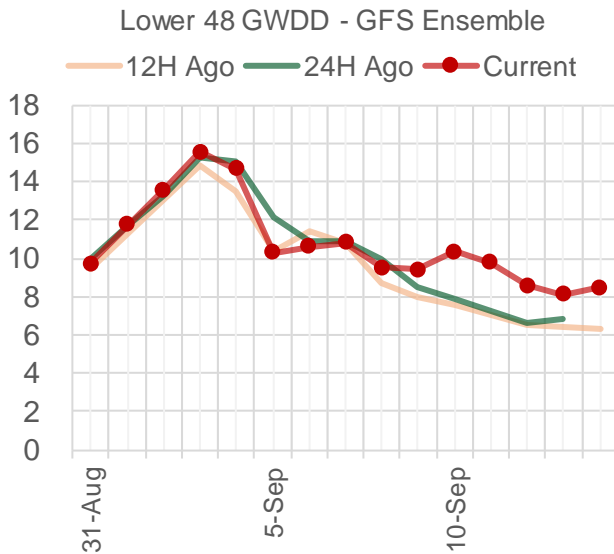
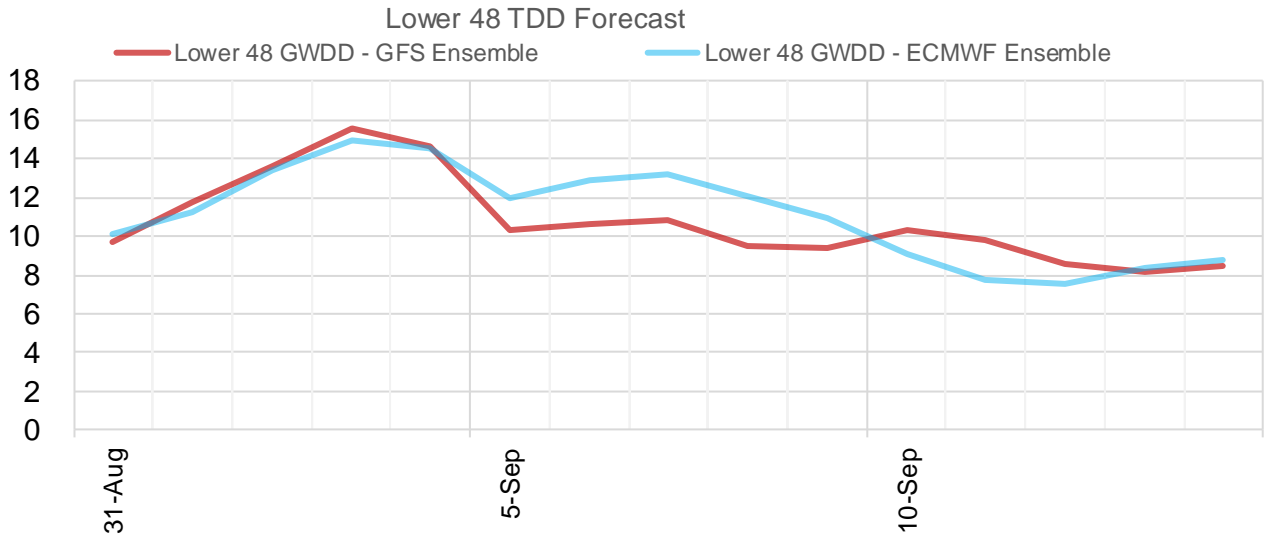
	Current	Δ from YD	Δ from 7D Avg
US ResComm	7.6	▲ 0.39	▼ -0.22

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.3	▼ -0.04	▼ -0.71

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	2.8	▼ -0.09	▼ -0.11

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.4	▲ 0.11	▼ -0.29

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



Source: WSI, Bloomberg

## Lower 48 Component Models

### Daily Balances

	25-Aug	26-Aug	27-Aug	28-Aug	29-Aug	30-Aug	31-Aug	DoD	vs. 7D
<b>Lower 48 Dry Production</b>	<b>84.5</b>	<b>84.6</b>	<b>85.0</b>	<b>86.0</b>	<b>85.3</b>	<b>85.5</b>	<b>84.3</b>	▼ -1.2	▼ -0.9
<b>Canadian Imports</b>	<b>5.3</b>	<b>5.5</b>	<b>5.1</b>	<b>5.0</b>	<b>4.4</b>	<b>4.3</b>	<b>4.3</b>	▼ 0.0	▼ -0.7
L48 Power	44.5	41.9	42.6	40.6	35.8	34.8	37.5	▲ 2.7	▼ -2.5
L48 Residential & Commercial	8.2	8.0	8.2	7.6	7.2	7.2	7.6	▲ 0.4	▼ -0.1
L48 Industrial	18.9	18.9	19.3	19.6	19.9	20.2	20.4	▲ 0.3	▲ 1.0
L48 Lease and Plant Fuel	4.7	4.7	4.7	4.8	4.7	4.8	4.7	▼ -0.1	▼ 0.0
L48 Pipeline Distribution	2.4	2.3	2.3	2.2	2.0	1.9	2.1	▲ 0.1	▼ -0.1
<b>L48 Regional Gas Consumption</b>	<b>78.7</b>	<b>75.8</b>	<b>77.1</b>	<b>74.8</b>	<b>69.6</b>	<b>68.9</b>	<b>72.3</b>	▲ 3.4	▼ -1.9
<b>Net LNG Exports</b>	<b>3.1</b>	<b>2.3</b>	<b>2.4</b>	<b>2.6</b>	<b>2.9</b>	<b>2.9</b>	<b>2.8</b>	▼ -0.1	▲ 0.1
<b>Total Mexican Exports</b>	<b>6.6</b>	<b>6.8</b>	<b>7.0</b>	<b>6.8</b>	<b>6.3</b>	<b>6.3</b>	<b>6.4</b>	▲ 0.1	▼ -0.3
Implied Daily Storage Activity	1.5	5.2	3.6	6.7	10.9	11.8	7.1		
EIA Reported Daily Storage Activity									
Daily Model Error									

### EIA Storage Week Balances

	24-Jul	31-Jul	7-Aug	14-Aug	21-Aug	28-Aug	WoW	vs. 4W
<b>Lower 48 Dry Production</b>	<b>86.6</b>	<b>86.5</b>	<b>86.5</b>	<b>86.7</b>	<b>86.5</b>	<b>85.2</b>	▼ -1.2	▼ -1.3
<b>Canadian Imports</b>	<b>4.4</b>	<b>4.5</b>	<b>4.6</b>	<b>5.0</b>	<b>4.7</b>	<b>5.2</b>	▲ 0.5	▲ 0.5
L48 Power	45.4	45.5	40.8	43.0	40.2	41.7	▲ 1.5	▼ -0.7
L48 Residential & Commercial	8.1	8.1	7.7	7.8	7.8	8.0	▲ 0.1	▲ 0.1
L48 Industrial	17.4	17.3	18.4	18.6	19.9	19.0	▼ -0.9	▲ 0.4
L48 Lease and Plant Fuel	4.8	4.8	4.8	4.8	4.8	4.7	▼ -0.1	▼ -0.1
L48 Pipeline Distribution	2.4	2.4	2.2	2.3	2.2	2.3	▲ 0.1	▼ 0.0
<b>L48 Regional Gas Consumption</b>	<b>78.2</b>	<b>78.2</b>	<b>74.0</b>	<b>76.5</b>	<b>74.9</b>	<b>75.7</b>	▲ 0.7	▼ -0.2
<b>Net LNG Exports</b>	<b>3.6</b>	<b>3.1</b>	<b>3.9</b>	<b>4.4</b>	<b>4.7</b>	<b>3.9</b>	▼ -0.9	▼ -0.2
<b>Total Mexican Exports</b>	<b>6.4</b>	<b>6.2</b>	<b>6.1</b>	<b>6.0</b>	<b>6.2</b>	<b>6.7</b>	▲ 0.5	▲ 0.5
Implied Daily Storage Activity	2.7	3.5	7.2	4.8	5.3	4.3	-1.0	
EIA Reported Daily Storage Activity	3.7	4.7	8.3	6.1	6.4			
Daily Model Error	-1.0	-1.2	-1.1	-1.3	-1.2			

### Monthly Balances

	2Yr Ago Aug-18	LY Aug-19	Apr-20	May-20	Jun-20	Jul-20	MTD Aug-20	MoM	vs. LY
<b>Lower 48 Dry Production</b>	<b>83.2</b>	<b>92.5</b>	<b>91.6</b>	<b>85.8</b>	<b>85.1</b>	<b>86.2</b>	<b>86.1</b>	▼ -0.1	▼ -6.4
<b>Canadian Imports</b>	<b>5.0</b>	<b>4.4</b>	<b>3.9</b>	<b>3.9</b>	<b>4.0</b>	<b>4.4</b>	<b>4.9</b>	▲ 0.5	▲ 0.5
L48 Power	38.2	41.1	25.5	26.9	34.5	43.7	40.8	▼ -2.9	▼ -0.3
L48 Residential & Commercial	7.8	7.8	20.4	13.0	8.6	8.0	7.8	▼ -0.2	▼ -0.1
L48 Industrial	20.2	22.0	20.6	18.8	18.5	17.9	19.2	▲ 1.3	▼ -2.8
L48 Lease and Plant Fuel	4.7	5.1	5.1	4.8	4.8	4.8	4.8	▼ 0.0	▼ -0.4
L48 Pipeline Distribution	2.1	2.3	2.1	1.9	2.1	2.4	2.2	▼ -0.1	▼ 0.0
<b>L48 Regional Gas Consumption</b>	<b>73.0</b>	<b>78.2</b>	<b>73.7</b>	<b>65.4</b>	<b>68.4</b>	<b>76.8</b>	<b>74.7</b>	▼ -2.1	▼ -3.5
<b>Net LNG Exports</b>	<b>3.3</b>	<b>5.2</b>	<b>8.2</b>	<b>6.7</b>	<b>4.0</b>	<b>3.3</b>	<b>4.1</b>	▲ 0.8	▼ -1.1
<b>Total Mexican Exports</b>	<b>5.0</b>	<b>5.4</b>	<b>4.9</b>	<b>4.9</b>	<b>5.7</b>	<b>6.1</b>	<b>6.3</b>	▲ 0.1	▲ 0.9
Implied Daily Storage Activity	6.9	8.0	8.7	12.7	10.9	4.4	5.9		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

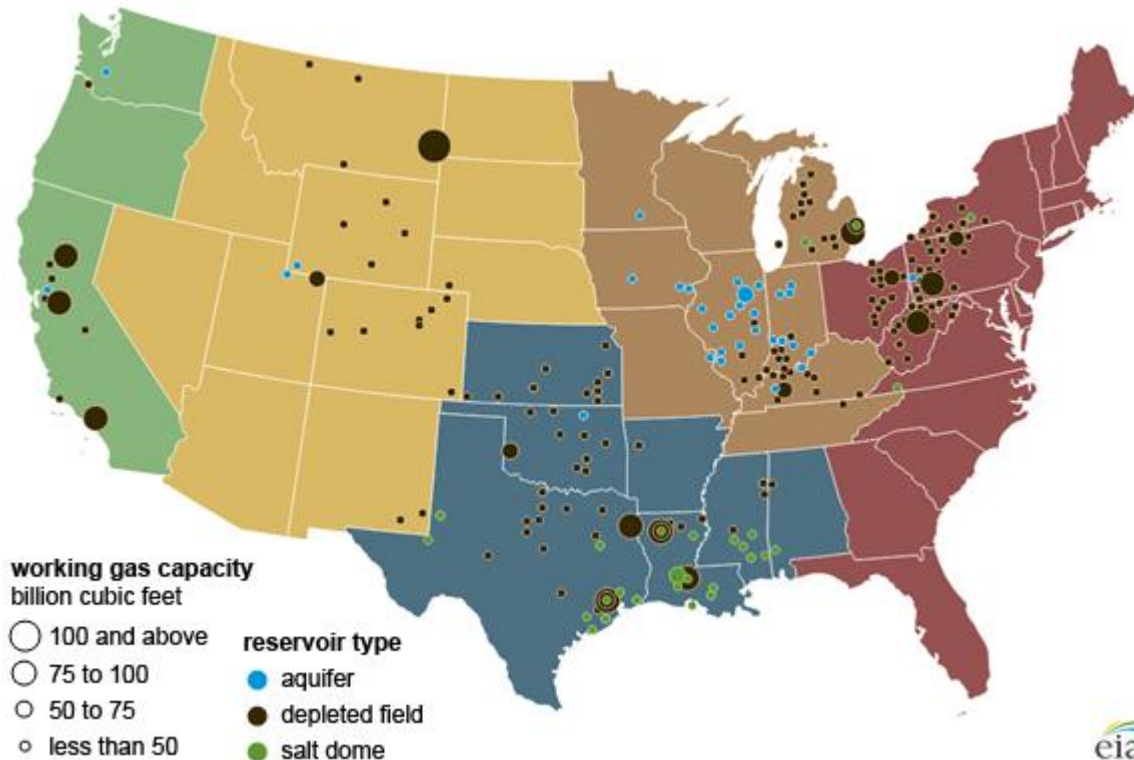
### Regional S/D Models Storage Projection

Week Ending 28-Aug

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	4.0	1.4	5.4	38
East	0.6	1.8	2.4	17
Midwest	2.7	0.5	3.3	23
Mountain	3.2	-2.5	0.7	5
South Central	-2.8	2.3	-0.6	-4
Pacific	0.2	-0.7	-0.4	-3

\*Adjustment Factor is calculated based on historical regional deltas

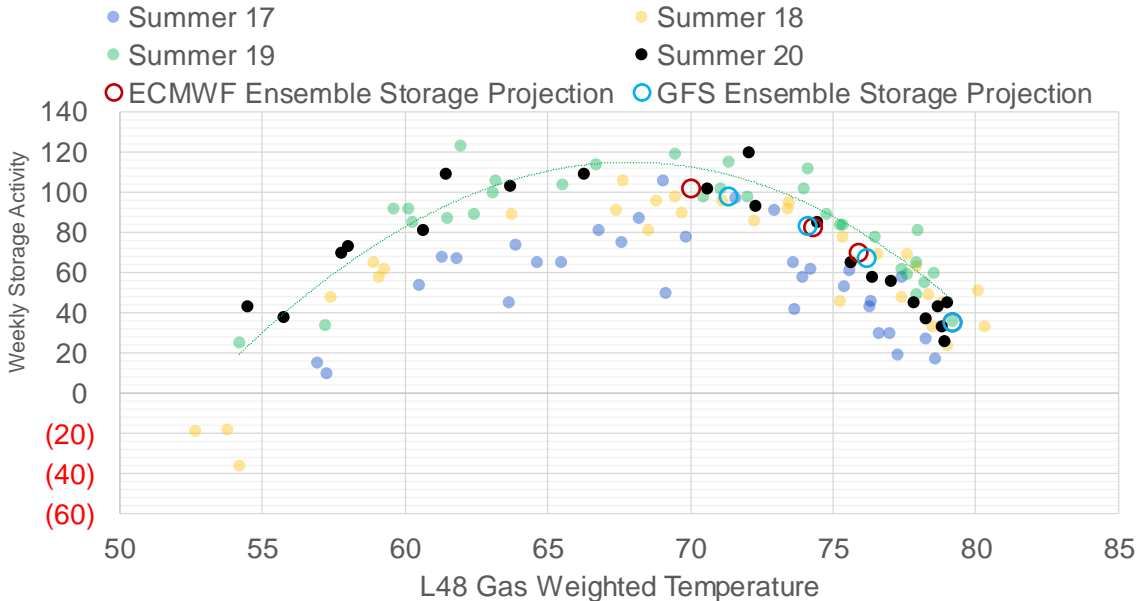
U.S. underground natural gas storage facilities by type (July 2015)



## Weather Model Storage Projection

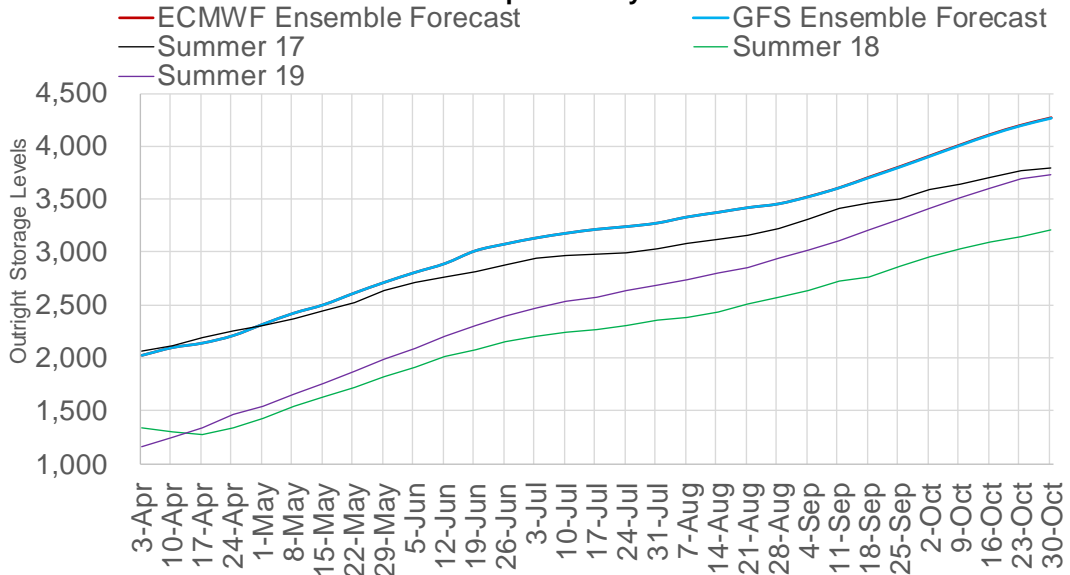
Next report and beyond	
Week Ending	Week Storage Projection
4-Sep	69
11-Sep	83
18-Sep	100

### Weather Storage Model - Next 4 Week Forecast



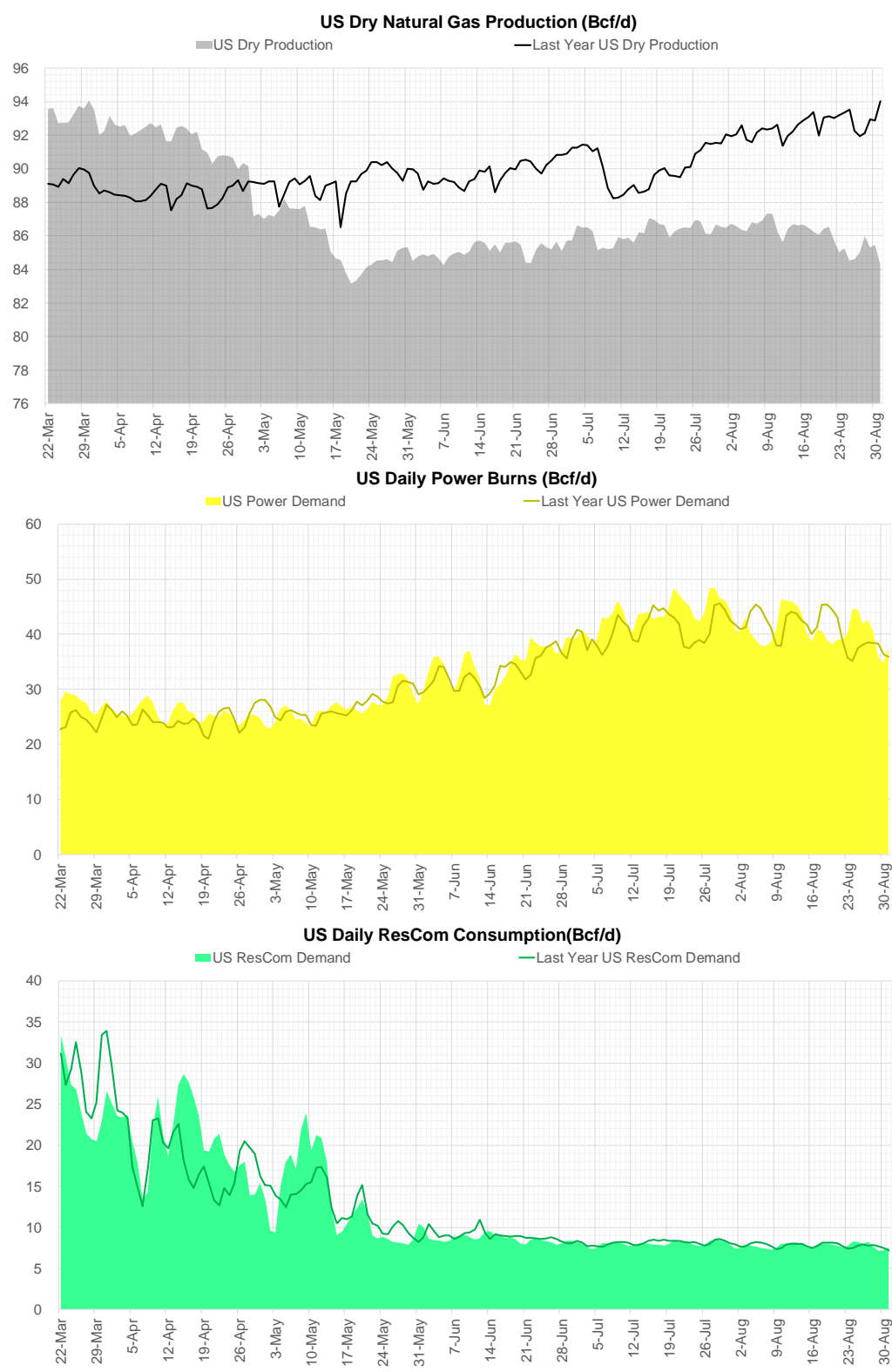
### Weather Based End of Winter Projection (Bcf)

10Y normals past 15 day forecast window



The risk of trading futures and options and other derivatives involves a substantial risk of loss and is not suitable for all persons. Each person must consider whether a particular trade, combination of trades, or strategy is suitable for that person's financial means and objectives. Past results are not necessarily indicative of future results. This communication may contain links to third party websites which are not under the control of and are not maintained by ION Energy Group, and ION Energy Group is not responsible for their content.

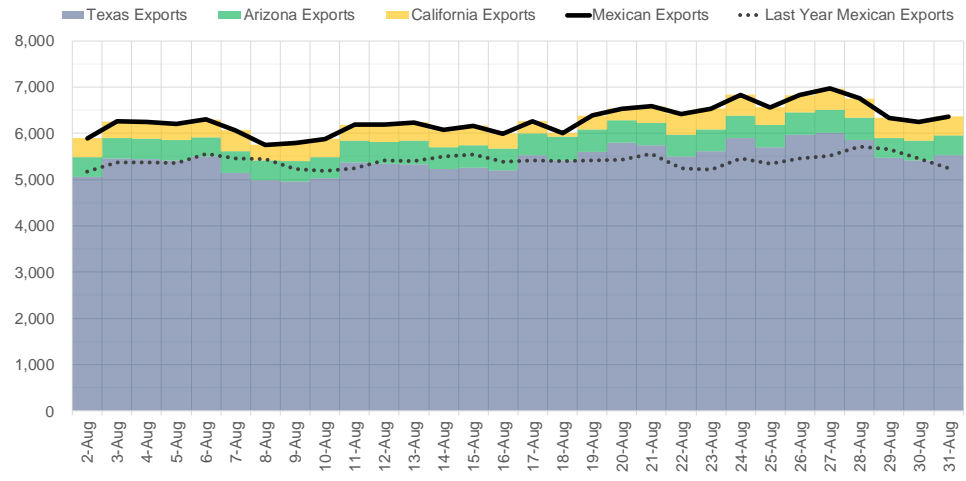
## Supply – Demand Trends



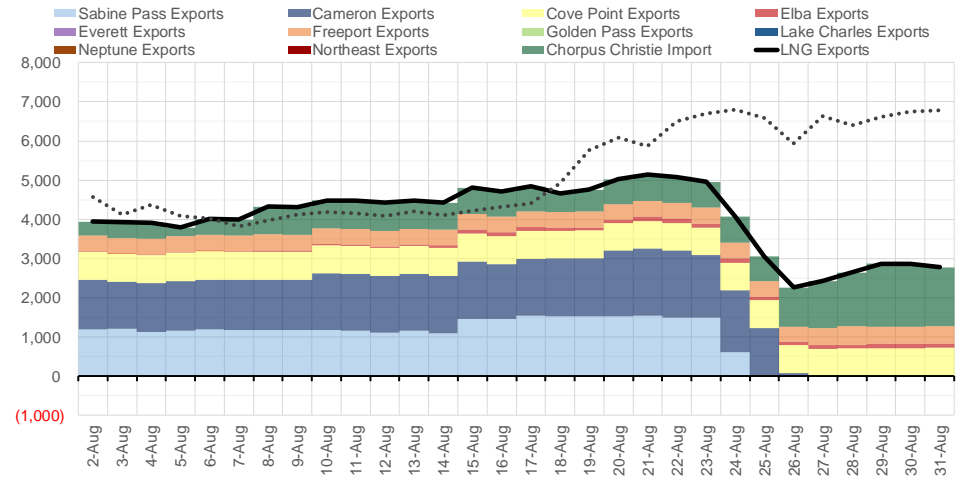
Source: Bloomberg

The risk of trading futures and options and other derivatives involves a substantial risk of loss and is not suitable for all persons. Each person must consider whether a particular trade, combination of trades, or strategy is suitable for that person's financial means and objectives. Past results are not necessarily indicative of future results. This communication may contain links to third party websites which are not under the control of and are not maintained by ION Energy Group, and ION Energy Group is not responsible for their content.

### Mexican Exports - Last 30 days (MMcf/d)



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



Source: Bloomberg

The risk of trading futures and options and other derivatives involves a substantial risk of loss and is not suitable for all persons. Each person must consider whether a particular trade, combination of trades, or strategy is suitable for that person's financial means and objectives. Past results are not necessarily indicative of future results. This communication may contain links to third party websites which are not under the control of and are not maintained by ION Energy Group, and ION Energy Group is not responsible for their content.

### 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
3	2021	C	3.25	20310	10	2020	P	1.50	47325
3	2021	C	4.00	19775	10	2020	P	2.00	44851
10	2020	C	3.00	8704	10	2020	C	2.75	41346
10	2020	C	3.25	5558	10	2020	C	3.00	40608
10	2020	C	3.50	5227	10	2020	C	2.50	35912
10	2020	P	2.00	5136	10	2020	P	1.60	34064
8	2021	C	3.75	5100	3	2021	P	2.00	31292
11	2020	P	2.25	4820	10	2020	P	1.75	30412
10	2020	P	2.25	4196	10	2020	P	1.25	28894
1	2021	C	3.25	3098	11	2020	C	3.50	24521
11	2020	C	3.50	2838	10	2020	P	1.00	24016
1	2021	C	4.00	2501	1	2021	C	4.50	22791
10	2020	P	2.50	2478	12	2020	P	2.00	22548
10	2020	C	2.75	2261	3	2021	C	3.00	22214
11	2020	P	2.55	2115	10	2020	C	2.10	21985
10	2020	P	2.15	1449	1	2021	C	3.50	21734
10	2020	C	3.75	1193	10	2020	P	2.10	21483
11	2020	P	2.75	1107	10	2020	P	2.25	20508
1	2021	C	3.50	1100	10	2020	C	3.50	20498
10	2020	P	1.50	1080	11	2020	P	2.00	20280
3	2021	C	3.50	1063	3	2021	C	3.50	20180
2	2021	C	3.50	1058	3	2021	C	6.00	19955
12	2020	C	6.00	1000	10	2020	P	1.30	19128
4	2021	C	3.50	1000	10	2020	C	2.00	18665
5	2021	C	3.50	1000	10	2020	P	1.80	18380
6	2021	C	3.50	1000	10	2020	C	3.25	18375
7	2021	C	3.50	1000	4	2021	C	5.00	17981
8	2021	C	3.50	1000	11	2020	C	3.00	17327
9	2021	C	3.50	1000	10	2020	C	2.25	17294
10	2021	C	3.50	1000	1	2021	C	3.00	16666
11	2021	C	3.50	1000	2	2021	C	5.00	15569
12	2021	C	3.50	1000	12	2020	C	4.00	15015
10	2020	P	1.75	996	11	2020	C	2.75	14899
10	2020	C	2.90	885	1	2021	C	5.00	14829
11	2020	C	3.25	878	11	2020	C	3.25	14753
10	2020	P	2.40	841	11	2020	C	5.00	14633
4	2021	C	3.25	810	4	2021	C	3.00	14417
12	2020	P	3.00	805	1	2021	C	3.75	14337
10	2020	P	2.60	802	1	2021	P	2.25	14304
11	2020	C	3.00	802	11	2020	P	2.50	14081
1	2021	C	5.00	801	10	2020	C	2.40	14043
1	2021	P	2.75	750	10	2020	P	1.40	13898
11	2020	C	4.00	646	4	2021	P	2.00	13594
10	2020	C	2.70	585	12	2020	P	2.50	13345
2	2021	C	4.50	585	1	2021	P	2.50	13228
5	2021	C	3.25	567	6	2021	C	4.00	13225
2	2021	C	3.25	560	3	2021	C	5.00	13212
6	2021	C	3.25	560	1	2021	P	2.00	13121
7	2021	C	3.25	560	2	2021	C	3.50	12801
					11	2020	C	4	12795

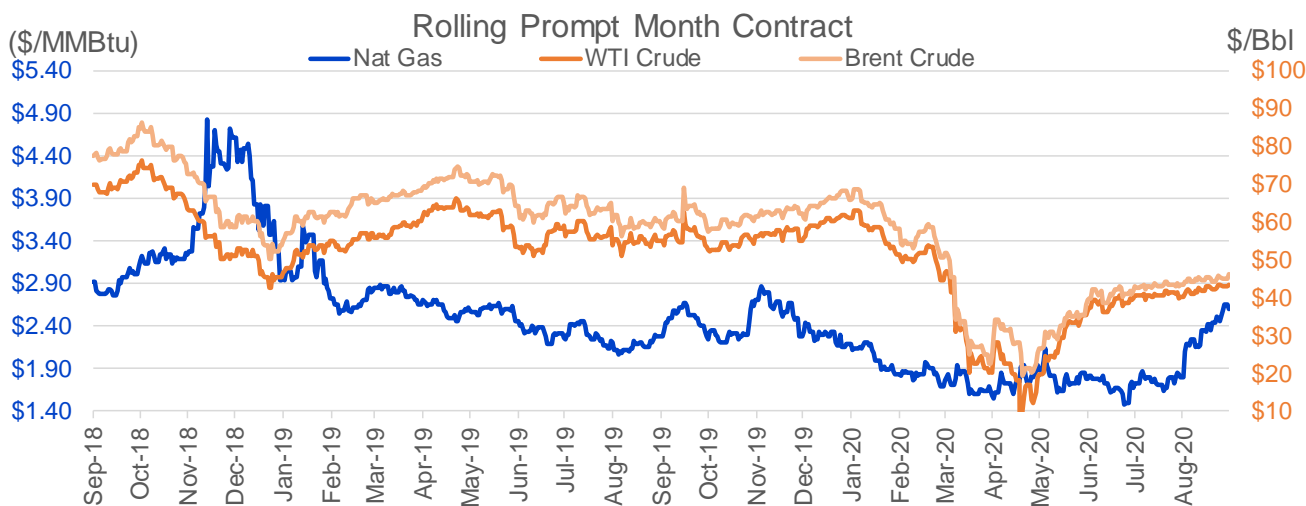
Source: CME, Nasdaq, ICE



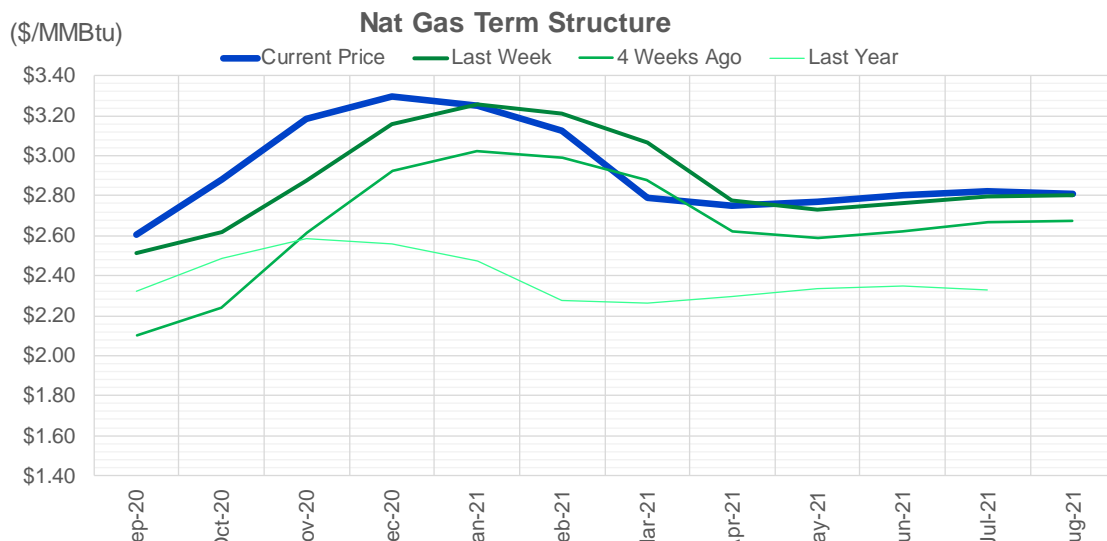
## Nat Gas Futures Open Interest CME, and ICE Combined

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
OCT 20	228218	238985	-10767	OCT 20	90850	87805	3044.75
NOV 20	199870	199218	652	NOV 20	79128	78192	936.75
DEC 20	103082	103008	74	DEC 20	72070	71807	262.5
JAN 21	129694	132360	-2666	JAN 21	88929	87936	992.5
FEB 21	47223	45173	2050	FEB 21	56277	55740	537.25
MAR 21	94283	89788	4495	MAR 21	78390	76887	1503
APR 21	80149	80444	-295	APR 21	62963	64114	-1151.75
MAY 21	45916	45947	-31	MAY 21	53218	52832	385.25
JUN 21	26460	26032	428	JUN 21	49913	49615	297.75
JUL 21	19117	19246	-129	JUL 21	51702	51319	383
AUG 21	19073	18882	191	AUG 21	51537	51053	483.75
SEP 21	25066	24841	225	SEP 21	48307	47921	386
OCT 21	62695	62074	621	OCT 21	72330	71674	655.75
NOV 21	26402	26323	79	NOV 21	41808	41903	-95.25
DEC 21	22196	21822	374	DEC 21	42453	42376	77.75
JAN 22	21006	20431	575	JAN 22	35748	35789	-40.75
FEB 22	11766	12107	-341	FEB 22	31356	31298	58
MAR 22	17607	17764	-157	MAR 22	33398	33084	314
APR 22	19201	19133	68	APR 22	33705	33461	244
MAY 22	5983	5965	18	MAY 22	24349	24224	124.75
JUN 22	3148	3148	0	JUN 22	23660	23523	136.25
JUL 22	2687	2681	6	JUL 22	24138	24021	117
AUG 22	1957	1940	17	AUG 22	23978	23838	140
SEP 22	2132	2123	9	SEP 22	23102	22966	136.25
OCT 22	3157	3193	-36	OCT 22	24348	24235	112.75
NOV 22	2156	2019	137	NOV 22	21690	21943	-253
DEC 22	2061	2057	4	DEC 22	22776	22720	56.25
JAN 23	2865	2866	-1	JAN 23	12397	12388	9
FEB 23	858	861	-3	FEB 23	11291	11290	1.25
MAR 23	863	0	863	MAR 23	11800	11798	1.25

Source: CME, ICE



The risk of trading futures and options and other derivatives involves a substantial risk of loss and is not suitable for all persons. Each person must consider whether a particular trade, combination of trades, or strategy is suitable for that person's financial means and objectives. Past results are not necessarily indicative of future results. This communication may contain links to third party websites which are not under the control of and are not maintained by ION Energy Group, and ION Energy Group is not responsible for their content.



	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21
<b>Current Price</b>	<b>\$2.602</b>	<b>\$2.879</b>	<b>\$3.184</b>	<b>\$3.295</b>	<b>\$3.254</b>	<b>\$3.128</b>	<b>\$2.790</b>	<b>\$2.748</b>	<b>\$2.773</b>	<b>\$2.806</b>	<b>\$2.822</b>	<b>\$2.807</b>
Last Week	\$2.513	\$2.616	\$2.875	\$3.156	\$3.258	\$3.210	\$3.067	\$2.775	\$2.733	\$2.760	\$2.794	\$2.803
vs. Last Week	\$0.089	\$0.263	\$0.309	\$0.139	-\$0.004	-\$0.082	-\$0.277	-\$0.027	\$0.040	\$0.046	\$0.028	\$0.004
4 Weeks Ago	\$2.101	\$2.239	\$2.612	\$2.923	\$3.025	\$2.988	\$2.880	\$2.624	\$2.588	\$2.623	\$2.666	\$2.675
vs. 4 Weeks Ago	\$0.501	\$0.640	\$0.572	\$0.372	\$0.229	\$0.140	-\$0.090	\$0.124	\$0.185	\$0.183	\$0.156	\$0.132
Last Year	\$2.285	\$2.324	\$2.485	\$2.588	\$2.556	\$2.473	\$2.277	\$2.261	\$2.297	\$2.336	\$2.345	\$2.329
vs. Last Year	\$0.317	\$0.555	\$0.699	\$0.707	\$0.698	\$0.655	\$0.513	\$0.487	\$0.476	\$0.470	\$0.477	\$0.478

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.20	1.66	0.46
TETCO M3	\$/MMBtu	1.20	1.47	0.27
FGT Zone 3	\$/MMBtu	1.09	2.58	1.49
Zone 6 NY	\$/MMBtu	1.09	1.43	0.34
Chicago Citygate	\$/MMBtu	2.18	2.30	0.12
Michcon	\$/MMBtu	2.15	2.23	0.08
Columbia TCO Pool	\$/MMBtu	1.48	1.74	0.26
Ventura	\$/MMBtu	2.36	2.25	-0.11
Rockies/Opal	\$/MMBtu	2.48	2.21	-0.27
El Paso Permian Basin	\$/MMBtu	1.50	1.72	0.22
Socal Citygate	\$/MMBtu	4.05	3.24	-0.81
Malin	\$/MMBtu	2.34	2.42	0.08
Houston Ship Channel	\$/MMBtu	2.42	2.49	0.07
Henry Hub Cash	\$/MMBtu	2.46	2.33	-0.13
AECO Cash	C\$/GJ	2.08	2.04	-0.04
Station2 Cash	C\$/GJ	2.09	2.41	0.32
Dawn Cash	C\$/GJ	2.15	2.25	0.10

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks	
				Ago	vs. Last Year
NatGas Jan/Apr	\$/MMBtu	-0.51	▼ -0.022	▼ -0.104	▼ -0.117
NatGas Mar/Apr	\$/MMBtu	-0.338	▼ -0.046	▼ -0.594	▼ -0.583
NatGas Oct/Nov	\$/MMBtu	0.28	▲ 0.018	▼ -0.096	▲ 0.213
NatGas Oct/Jan	\$/MMBtu	0.69	▲ 0.051	▼ -0.093	▲ 0.346
WTI Crude	\$/Bbl	43.46	▲ 0.840	▲ 2.450	▼ -11.640
Brent Crude	\$/Bbl	46.40	▲ 1.270	▲ 2.250	▼ -12.260
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	122.95	▼ -1.810	▼ -1.140	▼ -59.870
Propane, Mt. Bel	cents/Gallon	0.51	▼ -0.001	▲ 0.004	▲ 0.103
Ethane, Mt. Bel	cents/Gallon	0.24	▼ -0.004	▲ 0.021	▲ 0.083
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.150
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -4.500