

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.54	▼ \$ (0.05)	▼ \$ (0.01)

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 37.57	▼ \$ (2.20)	▼ \$ (3.1)

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 40.56	▼ \$ (1.45)	▼ \$ (2.9)

### 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	1.1	1.6	1.0	3.7
24 Hr Chg	-0.7	-2.4	2.6	-0.5

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	0.0	1.9	-5.2	-3.3
24 Hr Chg	-3.4	2.7	-6.2	-6.9

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	87.5	▼ -1.08	▲ 0.22

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	36.4	▲ 3.11	▲ 0.30

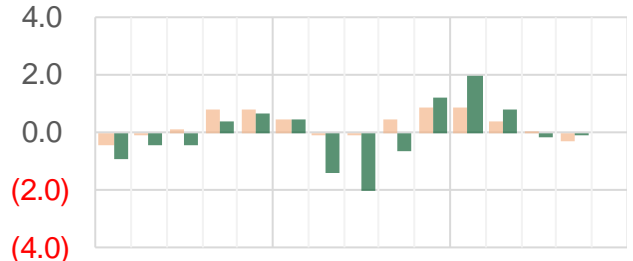
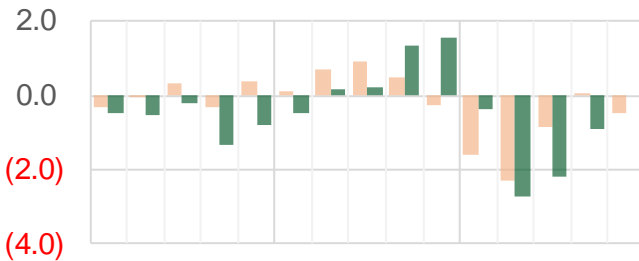
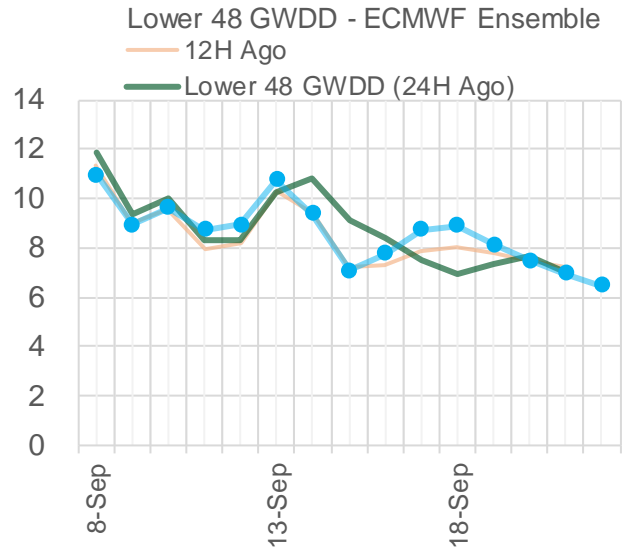
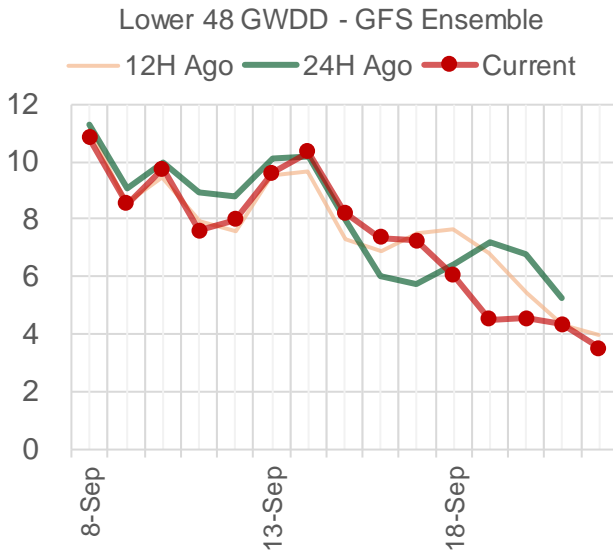
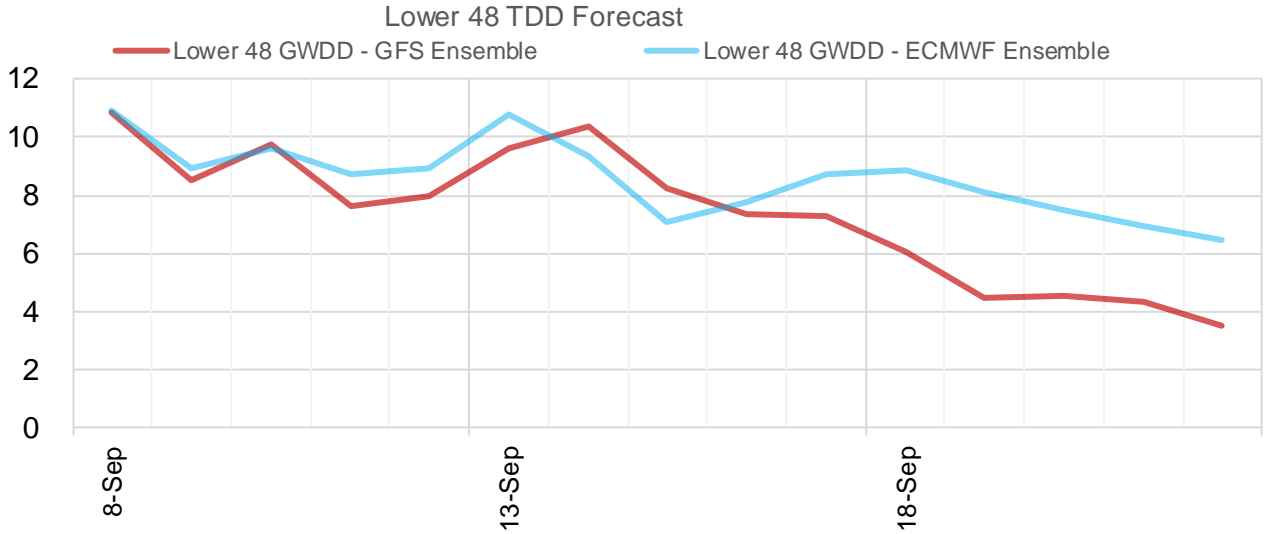
	Current	Δ from YD	Δ from 7D Avg
US ResComm	8.8	▲ 1.19	▲ 1.21

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	3.4	▼ -0.05	▼ -0.39

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	5.3	▲ 1.01	▲ 1.58

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.6	▲ 0.04	▲ 0.00

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



Source: WSI , Bloomberg

## Lower 48 Component Models

### Daily Balances

	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep	7-Sep	8-Sep	DoD	vs. 7D
<b>Lower 48 Dry Production</b>	<b>86.3</b>	<b>86.6</b>	<b>87.2</b>	<b>88.5</b>	<b>88.4</b>	<b>88.6</b>	<b>87.5</b>	▼ -1.1	▼ -0.1
<b>Canadian Imports</b>	<b>3.9</b>	<b>4.1</b>	<b>3.6</b>	<b>3.5</b>	<b>3.5</b>	<b>3.5</b>	<b>3.4</b>	▼ 0.0	▼ -0.3
L48 Power	38.8	39.4	38.0	34.0	32.6	33.3	36.4	▲ 3.1	▲ 0.4
L48 Residential & Commercial	7.7	8.0	7.8	7.3	7.1	7.7	8.8	▲ 1.2	▲ 1.2
L48 Industrial	19.8	19.9	19.9	19.8	19.8	19.9	19.7	▼ -0.1	▼ -0.1
L48 Lease and Plant Fuel	4.8	4.8	4.9	4.9	4.9	4.9	4.9	▼ -0.1	▼ 0.0
L48 Pipeline Distribution	2.2	2.2	2.2	2.0	1.9	1.9	2.1	▲ 0.2	▲ 0.1
<b>L48 Regional Gas Consumption</b>	<b>73.4</b>	<b>74.3</b>	<b>72.7</b>	<b>68.1</b>	<b>66.3</b>	<b>67.7</b>	<b>72.1</b>	▲ 4.3	▲ 1.6
<b>Net LNG Exports</b>	<b>3.1</b>	<b>3.9</b>	<b>3.9</b>	<b>4.0</b>	<b>4.1</b>	<b>4.3</b>	<b>5.3</b>	▲ 1.0	▲ 1.5
<b>Total Mexican Exports</b>	<b>6.8</b>	<b>6.9</b>	<b>6.8</b>	<b>6.5</b>	<b>6.2</b>	<b>6.6</b>	<b>6.6</b>	▲ 0.0	▼ 0.0
<b>Implied Daily Storage Activity</b>	<b>6.9</b>	<b>5.5</b>	<b>7.4</b>	<b>13.4</b>	<b>15.4</b>	<b>13.4</b>	<b>6.9</b>		
<b>EIA Reported Daily Storage Activity</b>									
<b>Daily Model Error</b>									

### EIA Storage Week Balances

	31-Jul	7-Aug	14-Aug	21-Aug	28-Aug	4-Sep	WoW	vs. 4W
<b>Lower 48 Dry Production</b>	<b>87.2</b>	<b>87.3</b>	<b>87.4</b>	<b>87.2</b>	<b>86.0</b>	<b>86.3</b>	▲ 0.3	▼ -0.7
<b>Canadian Imports</b>	<b>4.5</b>	<b>4.6</b>	<b>5.0</b>	<b>4.7</b>	<b>5.2</b>	<b>4.4</b>	▼ -0.8	▼ -0.5
L48 Power	45.5	40.7	42.9	40.0	41.6	37.2	▼ -4.4	▼ -4.1
L48 Residential & Commercial	8.7	8.1	8.1	8.2	8.3	7.8	▼ -0.5	▼ -0.4
L48 Industrial	17.4	18.8	19.0	20.4	19.6	19.8	▲ 0.1	▲ 0.3
L48 Lease and Plant Fuel	4.9	4.9	4.9	4.8	4.8	4.8	▲ 0.0	▼ 0.0
L48 Pipeline Distribution	2.5	2.2	2.3	2.2	2.3	2.1	▼ -0.2	▼ -0.2
<b>L48 Regional Gas Consumption</b>	<b>78.9</b>	<b>74.7</b>	<b>77.2</b>	<b>75.6</b>	<b>76.6</b>	<b>71.7</b>	▼ -5.0	▼ -4.4
<b>Net LNG Exports</b>	<b>3.1</b>	<b>3.9</b>	<b>4.4</b>	<b>4.7</b>	<b>3.9</b>	<b>3.0</b>	▼ -0.8	▼ -1.2
<b>Total Mexican Exports</b>	<b>6.2</b>	<b>6.1</b>	<b>6.0</b>	<b>6.2</b>	<b>6.6</b>	<b>6.5</b>	▼ -0.1	▲ 0.3
<b>Implied Daily Storage Activity</b>	<b>3.5</b>	<b>7.2</b>	<b>4.8</b>	<b>5.3</b>	<b>4.1</b>	<b>9.4</b>	<b>5.4</b>	
<b>EIA Reported Daily Storage Activity</b>	<b>4.7</b>	<b>8.3</b>	<b>6.1</b>	<b>6.4</b>	<b>5.0</b>			
<b>Daily Model Error</b>	<b>-1.2</b>	<b>-1.1</b>	<b>-1.3</b>	<b>-1.1</b>	<b>-0.9</b>			

### Monthly Balances

	2Yr Ago Sep-18	LY Sep-19	May-20	Jun-20	Jul-20	Aug-20	MTD Sep-20	MoM	vs. LY
<b>Lower 48 Dry Production</b>	<b>85.2</b>	<b>93.5</b>	<b>85.8</b>	<b>85.1</b>	<b>86.6</b>	<b>86.9</b>	<b>87.3</b>	▲ 0.5	▼ -6.1
<b>Canadian Imports</b>	<b>4.5</b>	<b>4.7</b>	<b>3.9</b>	<b>4.0</b>	<b>4.4</b>	<b>4.9</b>	<b>3.8</b>	▼ -1.1	▼ -0.9
L48 Power	34.2	36.4	26.9	34.8	43.8	40.6	36.2	▼ -4.4	▼ -0.2
L48 Residential & Commercial	8.5	8.3	12.9	9.0	8.6	8.1	7.8	▼ -0.3	▼ -0.5
L48 Industrial	21.6	22.3	18.9	18.3	17.8	19.6	19.8	▲ 0.3	▼ -2.4
L48 Lease and Plant Fuel	4.8	5.2	4.8	4.9	4.9	4.8	4.9	▲ 0.0	▼ -0.3
L48 Pipeline Distribution	2.0	2.1	1.9	2.0	2.4	2.2	2.1	▼ -0.2	▼ 0.0
<b>L48 Regional Gas Consumption</b>	<b>71.2</b>	<b>74.3</b>	<b>65.5</b>	<b>69.1</b>	<b>77.5</b>	<b>75.3</b>	<b>70.8</b>	▼ -4.5	▼ -3.5
<b>Net LNG Exports</b>	<b>3.1</b>	<b>6.2</b>	<b>6.7</b>	<b>4.0</b>	<b>3.3</b>	<b>4.0</b>	<b>4.0</b>	▼ -0.1	▼ -2.2
<b>Total Mexican Exports</b>	<b>5.1</b>	<b>5.4</b>	<b>4.9</b>	<b>5.7</b>	<b>6.1</b>	<b>6.3</b>	<b>6.6</b>	▲ 0.4	▲ 1.3
<b>Implied Daily Storage Activity</b>	<b>10.3</b>	<b>12.4</b>	<b>12.6</b>	<b>10.2</b>	<b>4.1</b>	<b>6.1</b>	<b>9.8</b>		
<b>EIA Reported Daily Storage Activity</b>									
<b>Daily Model Error</b>									

Source: Bloomberg, analytix.ai

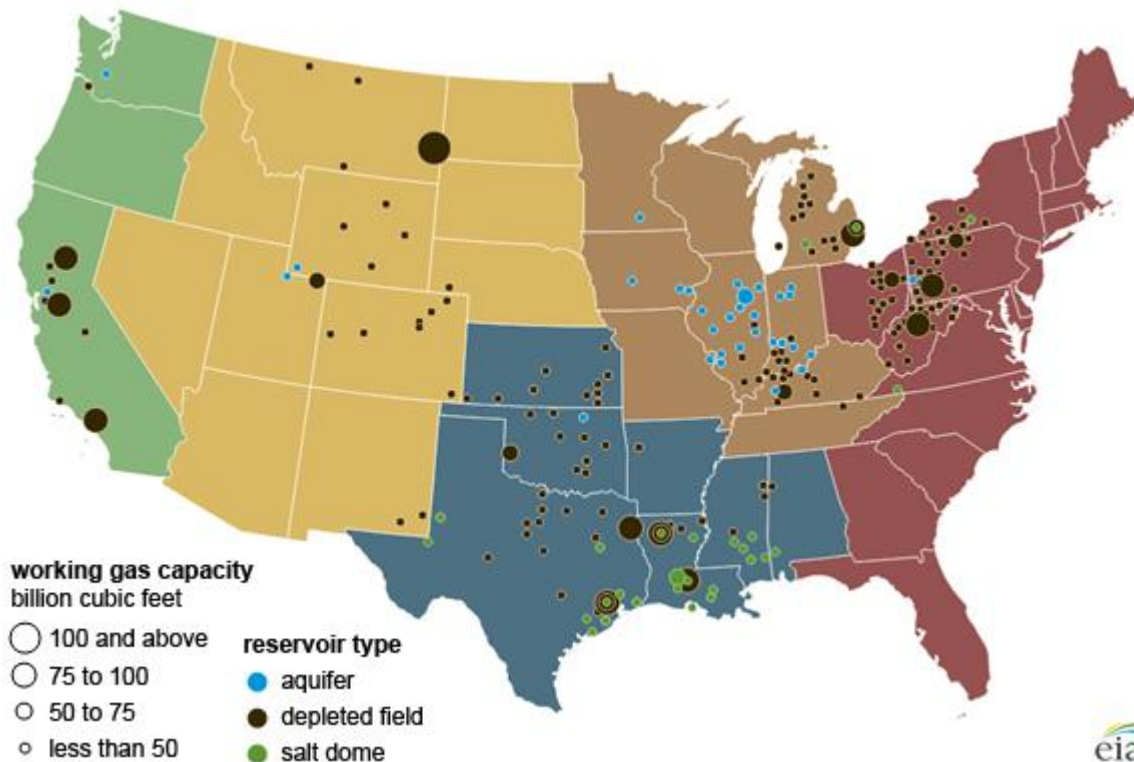
## Regional S/D Models Storage Projection

Week Ending 4-Sep

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	9.2	1.2	10.4	72
East	1.2	1.8	3.0	20
Midwest	4.0	0.5	4.5	31
Mountain	3.4	-2.9	0.5	3
South Central	-0.3	2.3	2.0	14
Pacific	1.0	-0.6	0.4	3

\*Adjustment Factor is calculated based on historical regional deltas

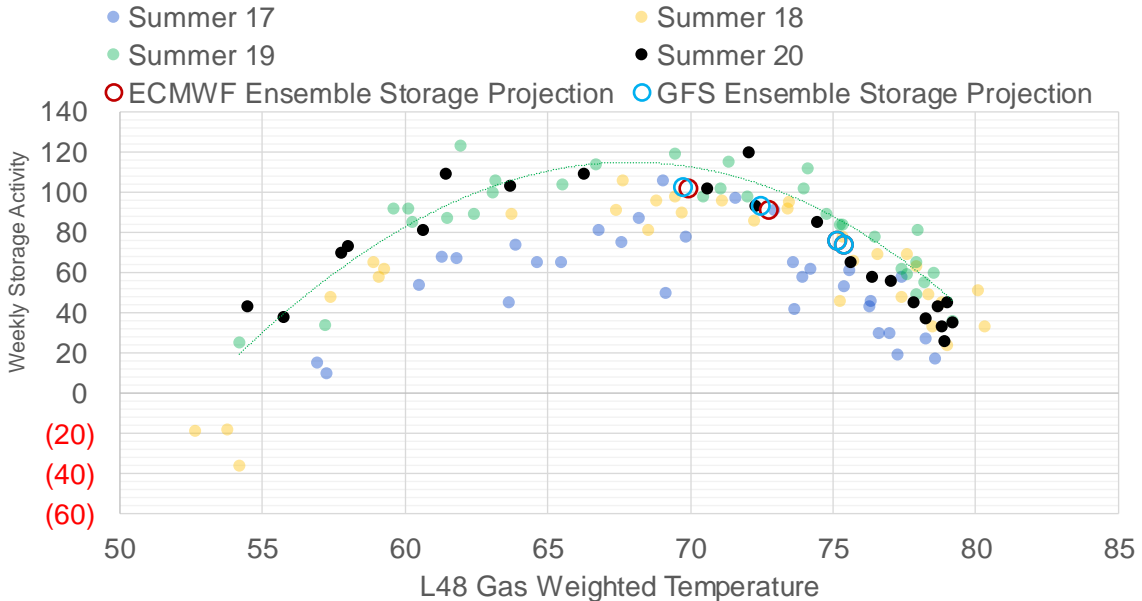
U.S. underground natural gas storage facilities by type (July 2015)



## Weather Model Storage Projection

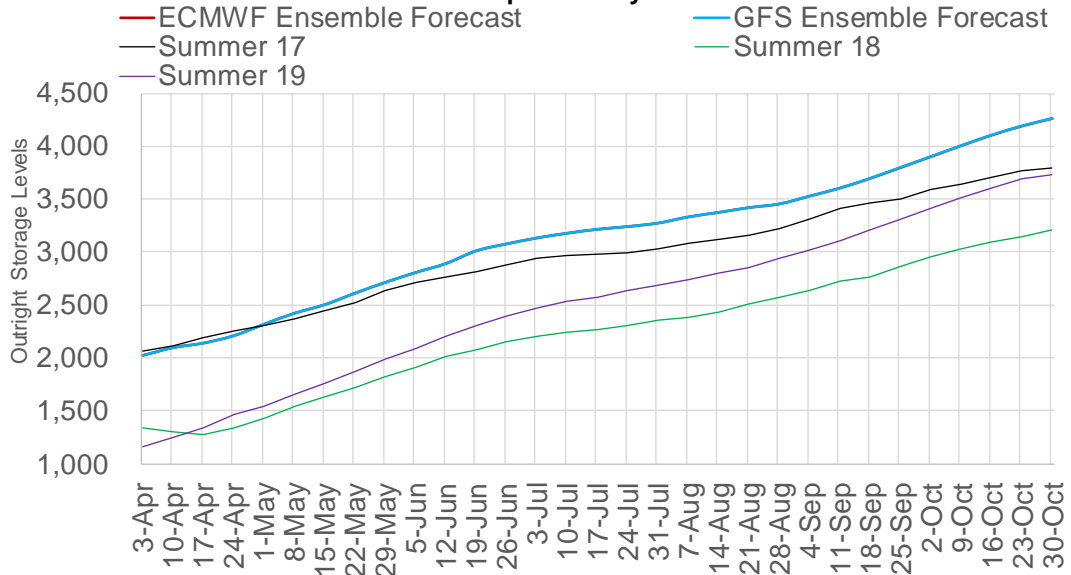
Next report and beyond	
Week Ending	Week Storage Projection
11-Sep	76
18-Sep	92
25-Sep	102

### Weather Storage Model - Next 4 Week Forecast



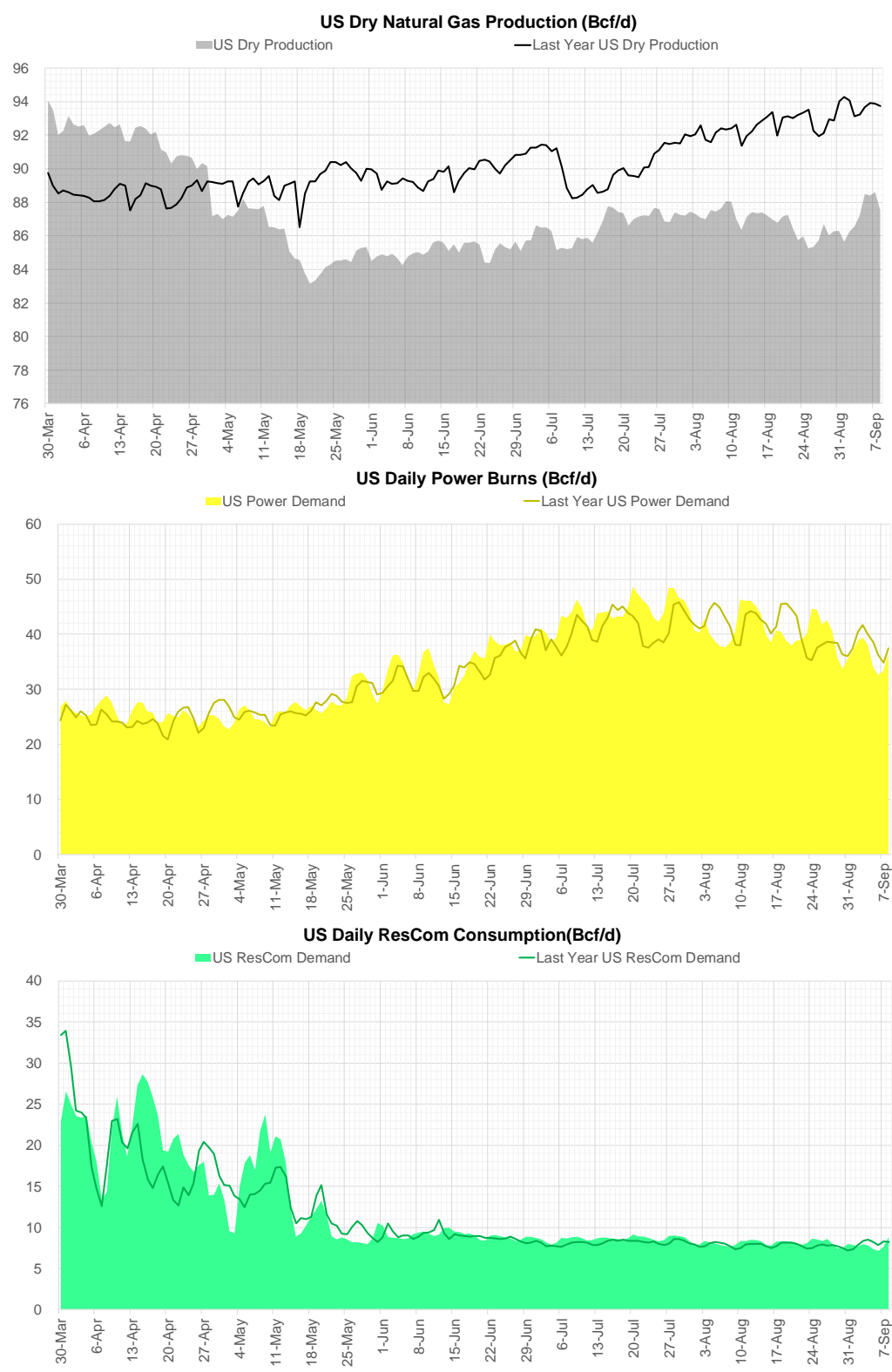
### Weather Based End of Winter Projection (Bcf)

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.

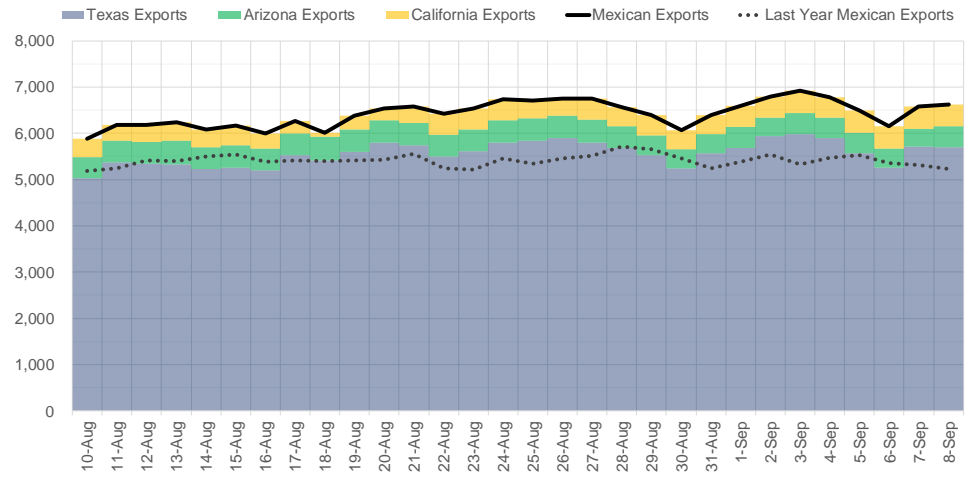
## Supply – Demand Trends



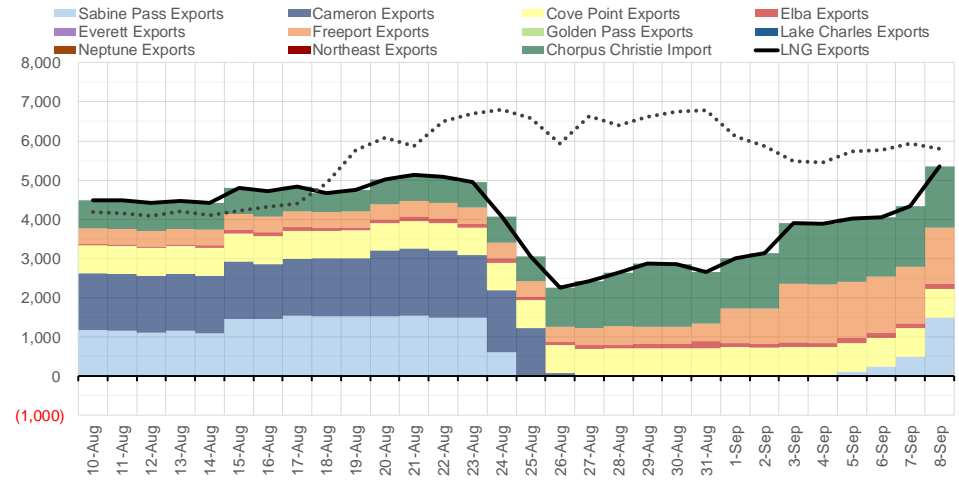
Source: Bloomberg

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
11	2020	P	2.80	11075	10	2020	P	2.00	47407
11	2020	P	2.65	10258	10	2020	C	3.00	46185
10	2020	C	3.00	10080	10	2020	P	1.50	44771
10	2020	P	2.00	9484	10	2020	C	2.75	40998
10	2020	C	2.75	6247	10	2020	P	1.60	33857
10	2020	P	2.25	5632	10	2020	C	2.50	33589
10	2020	C	2.50	4897	3	2021	P	2.00	32439
10	2020	C	3.50	3895	10	2020	P	1.75	30420
11	2020	C	5.00	3266	4	2021	C	5.00	30337
11	2020	C	4.50	2725	10	2020	P	1.25	28900
10	2020	P	1.80	2555	10	2020	P	2.25	26381
10	2020	P	1.90	2453	3	2021	C	3.25	26348
10	2020	P	2.50	2386	3	2021	C	4.00	25429
10	2020	P	2.20	2319	10	2020	P	1.00	24016
3	2021	C	4.50	2300	10	2020	C	3.25	23867
10	2020	C	3.25	2222	11	2020	C	3.50	23663
10	2020	C	4.00	2003	1	2021	C	4.50	23116
10	2020	P	2.30	1965	12	2020	P	2.00	22653
10	2020	C	2.60	1770	10	2020	P	2.10	22626
10	2020	P	2.10	1738	11	2020	P	2.00	22478
10	2020	C	2.90	1717	3	2021	C	3.00	22261
10	2020	P	2.15	1571	1	2021	C	3.50	22034
10	2020	C	2.65	1331	10	2020	C	2.10	21985
12	2020	P	2.00	1305	3	2021	C	3.50	20231
1	2021	C	5.00	1229	11	2020	C	5.00	20170
3	2021	C	3.50	1200	3	2021	C	6.00	20080
10	2020	P	2.35	1187	1	2021	C	3.75	19295
3	2021	C	4.00	1152	10	2020	P	1.30	19133
10	2020	P	1.75	1130	10	2020	C	3.50	19099
12	2020	P	2.50	1130	10	2020	P	1.80	19078
11	2020	C	4.00	1030	11	2020	P	2.25	18976
10	2020	C	2.80	1003	1	2021	C	5.00	18914
10	2020	P	2.65	939	10	2020	C	2.00	18664
11	2020	P	2.50	879	2	2021	C	5.00	17295
10	2020	C	2.85	770	10	2020	C	2.25	17290
2	2021	C	4.00	753	1	2021	C	3.00	16783
10	2020	P	2.40	728	11	2020	C	3.00	16583
10	2020	P	2.45	690	11	2020	P	2.50	16442
11	2020	C	3.50	649	10	2020	P	1.90	15354
2	2021	C	4.50	600	11	2020	C	3.25	15326
11	2020	C	3.25	563	12	2020	C	4.00	15165
1	2021	P	2.00	550	11	2020	C	2.75	14575
10	2020	C	2.70	516	10	2020	C	2.70	14330
1	2021	P	1.65	500	1	2021	P	2.25	14314
3	2021	C	3.00	500	12	2020	P	2.50	14288
11	2020	P	2.60	463	4	2021	C	3.00	14222
10	2020	P	2.60	461	6	2021	C	4.00	14075
10	2020	P	1.40	452	12	2020	C	3.75	14048
3	2021	C	3.25	450	10	2020	P	2.50	14025
					10	2020	P	2.2	13986.75

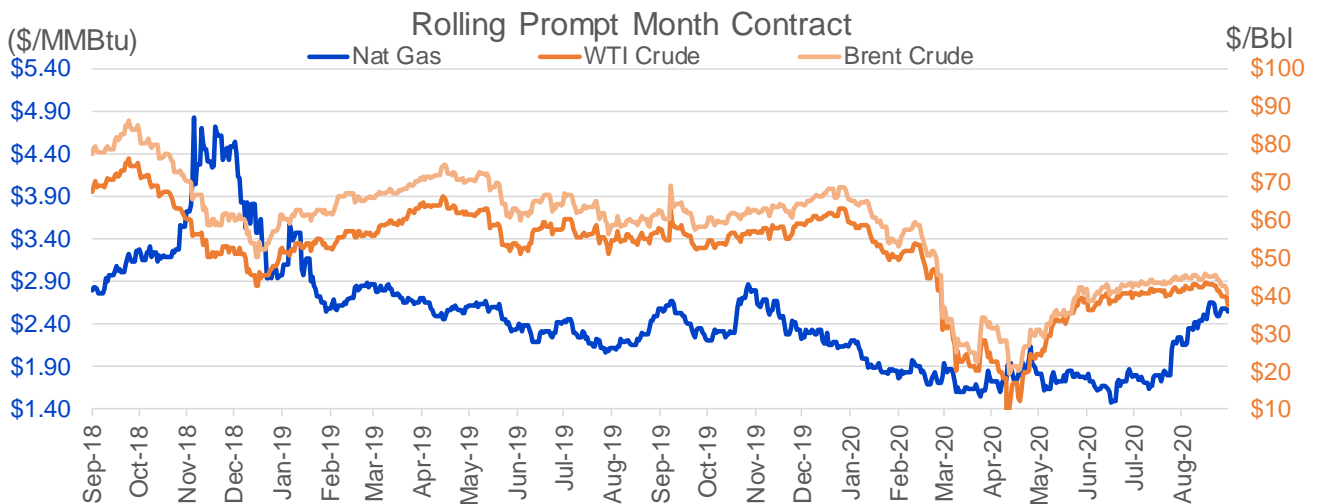
Source: CME, Nasdaq, ICE



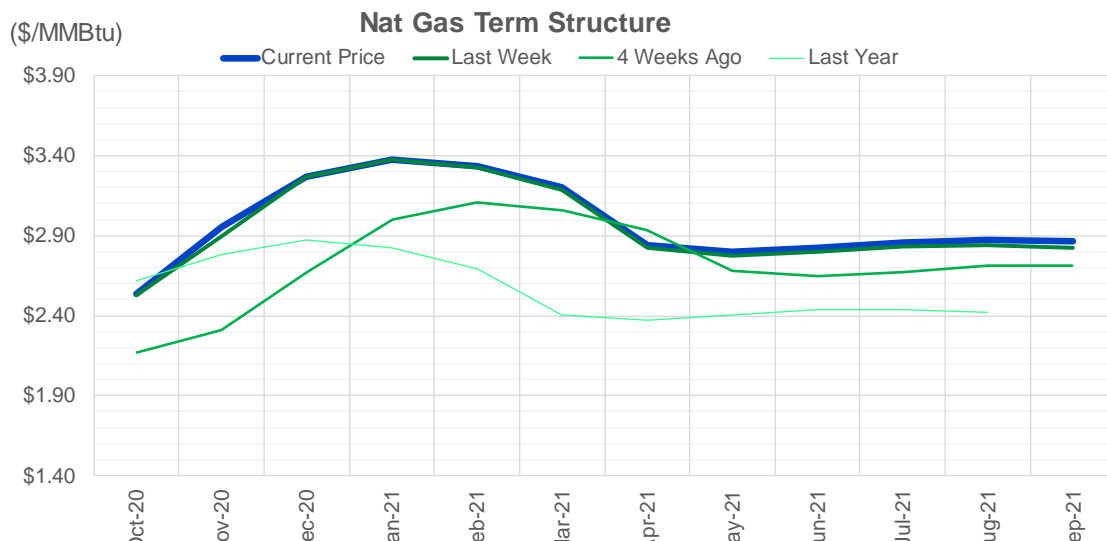
## Nat Gas Futures Open Interest CME, and ICE Combined

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	211662	211026	636	OCT 20	89175	89158	16.75
NOV 20	205877	204144	1733	NOV 20	83693	82217	1476
DEC 20	102742	103852	-1110	DEC 20	75034	73661	1373
JAN 21	130022	127740	2282	JAN 21	85481	85225	255.75
FEB 21	51531	48657	2874	FEB 21	57618	57047	571.25
MAR 21	101206	98260	2946	MAR 21	76132	75890	242
APR 21	78587	78605	-18	APR 21	64180	63856	324.75
MAY 21	46041	46389	-348	MAY 21	54211	53916	294.75
JUN 21	28312	27368	944	JUN 21	50168	50023	144.75
JUL 21	20361	20167	194	JUL 21	52416	52282	134.25
AUG 21	21211	20973	238	AUG 21	52799	52474	325
SEP 21	26926	26774	152	SEP 21	49088	48834	254.5
OCT 21	65397	65255	142	OCT 21	73152	72925	227.25
NOV 21	27274	27248	26	NOV 21	42222	42196	25.5
DEC 21	23540	23554	-14	DEC 21	42638	42566	71.75
JAN 22	21771	21920	-149	JAN 22	36596	36554	41.75
FEB 22	12436	11736	700	FEB 22	31746	31614	132.75
MAR 22	17667	17742	-75	MAR 22	33633	33577	56.25
APR 22	21081	20667	414	APR 22	33887	33880	6.5
MAY 22	6037	6029	8	MAY 22	24662	24633	29
JUN 22	3121	3133	-12	JUN 22	23797	23799	-1.5
JUL 22	2725	2714	11	JUL 22	24372	24358	13.5
AUG 22	1971	1963	8	AUG 22	24184	24129	54.5
SEP 22	2054	2120	-66	SEP 22	23269	23271	-1.5
OCT 22	3281	3161	120	OCT 22	24708	24533	175.25
NOV 22	2148	2207	-59	NOV 22	22000	21866	133.5
DEC 22	2218	2202	16	DEC 22	23116	23057	58.75
JAN 23	2873	2868	5	JAN 23	12406	12549	-143
FEB 23	858	858	0	FEB 23	11405	11423	-17.25
MAR 23	900	900	0	MAR 23	11744	11757	-13.25

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.



	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21
<b>Current Price</b>	<b>\$2.540</b>	<b>\$2.958</b>	<b>\$3.265</b>	<b>\$3.372</b>	<b>\$3.334</b>	<b>\$3.200</b>	<b>\$2.840</b>	<b>\$2.802</b>	<b>\$2.828</b>	<b>\$2.861</b>	<b>\$2.876</b>	<b>\$2.863</b>
Last Week	\$2.527	\$2.901	\$3.266	\$3.375	\$3.327	\$3.185	\$2.823	\$2.776	\$2.800	\$2.831	\$2.838	\$2.826
vs. Last Week	\$0.013	\$0.057	-\$0.001	-\$0.003	\$0.007	\$0.015	\$0.017	\$0.026	\$0.028	\$0.030	\$0.038	\$0.037
4 Weeks Ago	\$2.171	\$2.311	\$2.670	\$3.003	\$3.106	\$3.060	\$2.938	\$2.679	\$2.646	\$2.674	\$2.709	\$2.716
vs. 4 Weeks Ago	\$0.369	\$0.647	\$0.595	\$0.369	\$0.228	\$0.140	-\$0.098	\$0.123	\$0.182	\$0.187	\$0.167	\$0.147
Last Year	\$2.580	\$2.620	\$2.780	\$2.877	\$2.826	\$2.692	\$2.401	\$2.372	\$2.403	\$2.437	\$2.440	\$2.422
vs. Last Year	-\$0.040	\$0.338	\$0.485	\$0.495	\$0.508	\$0.508	\$0.439	\$0.430	\$0.425	\$0.424	\$0.436	\$0.441

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.63	1.56	-0.07
TETCO M3	\$/MMBtu	1.32	1.40	0.08
FGT Zone 3	\$/MMBtu	1.57	2.54	0.97
Zone 6 NY	\$/MMBtu	1.57	1.16	-0.41
Chicago Citygate	\$/MMBtu	1.99	2.22	0.23
Michcon	\$/MMBtu	1.94	2.09	0.15
Columbia TCO Pool	\$/MMBtu	1.49	1.59	0.10
Ventura	\$/MMBtu	2.15	2.20	0.05
Rockies/Opal	\$/MMBtu	2.41	2.10	-0.31
El Paso Permian Basin	\$/MMBtu	2.12	1.72	-0.40
Socal Citygate	\$/MMBtu	7.97	2.57	-5.40
Malin	\$/MMBtu	2.42	2.36	-0.06
Houston Ship Channel	\$/MMBtu	2.25	2.47	0.22
Henry Hub Cash	\$/MMBtu	1.80	2.26	0.46
AECO Cash	C\$/GJ	1.99	1.92	-0.07
Station2 Cash	C\$/GJ	2.13	2.47	0.34
Dawn Cash	C\$/GJ	2.00	2.13	0.13

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks	
				Ago	vs. Last Year
NatGas Jan/Apr	\$/MMBtu	-0.53	▲ 0.020	▼ -0.105	▼ -0.101
NatGas Mar/Apr	\$/MMBtu	-0.360	▲ 0.002	▼ -0.619	▼ -0.625
NatGas Oct/Nov	\$/MMBtu	0.42	▲ 0.044	▲ 0.059	▲ 0.369
NatGas Oct/Jan	\$/MMBtu	0.83	▼ -0.016	▲ 0.037	▲ 0.516
WTI Crude	\$/Bbl	37.57	▼ -5.190	▼ -4.040	▼ -19.830
Brent Crude	\$/Bbl	40.56	▼ -5.020	▼ -3.940	▼ -21.820
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	108.47	▼ -14.610	▼ -15.370	▼ -84.650
Propane, Mt. Bel	cents/Gallon	0.48	▼ -0.035	▼ -0.020	▲ 0.046
Ethane, Mt. Bel	cents/Gallon	0.20	▼ -0.024	▼ -0.033	▼ -0.034
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.150
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -4.500