

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.45	▼ \$ (0.08)	▲ \$ 0.15

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 37.40	▼ \$ (1.32)	▼ \$ (2.5)

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 39.55	▼ \$ (1.38)	▼ \$ (2.0)

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- [Short-term Weather Model Outlooks](#)
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- [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	-2.9	1.3	-2.8	-4.3
24 Hr Chg	-1.7	1.9	-1.2	-1.0

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	-1.6	4.5	-3.1	-0.2
24 Hr Chg	-2.2	4.5	-1.2	1.1

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	85.8	▲ 0.29	▲ 0.01

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	31.4	▲ 1.19	▲ 0.74

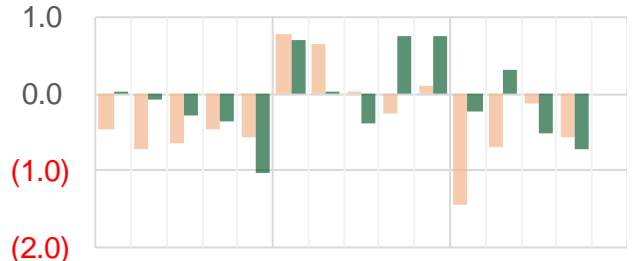
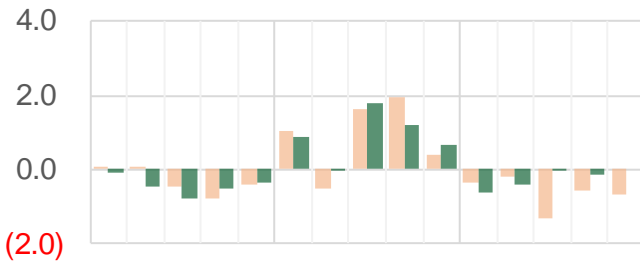
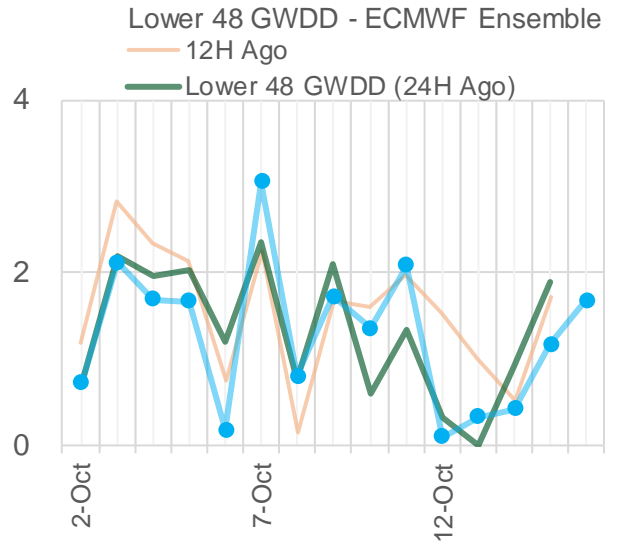
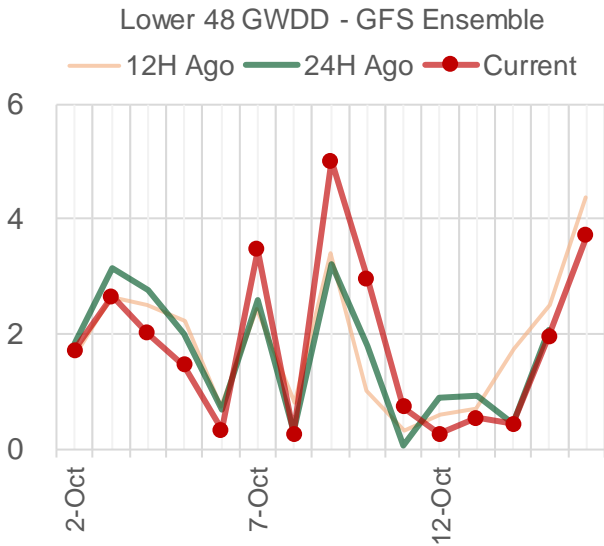
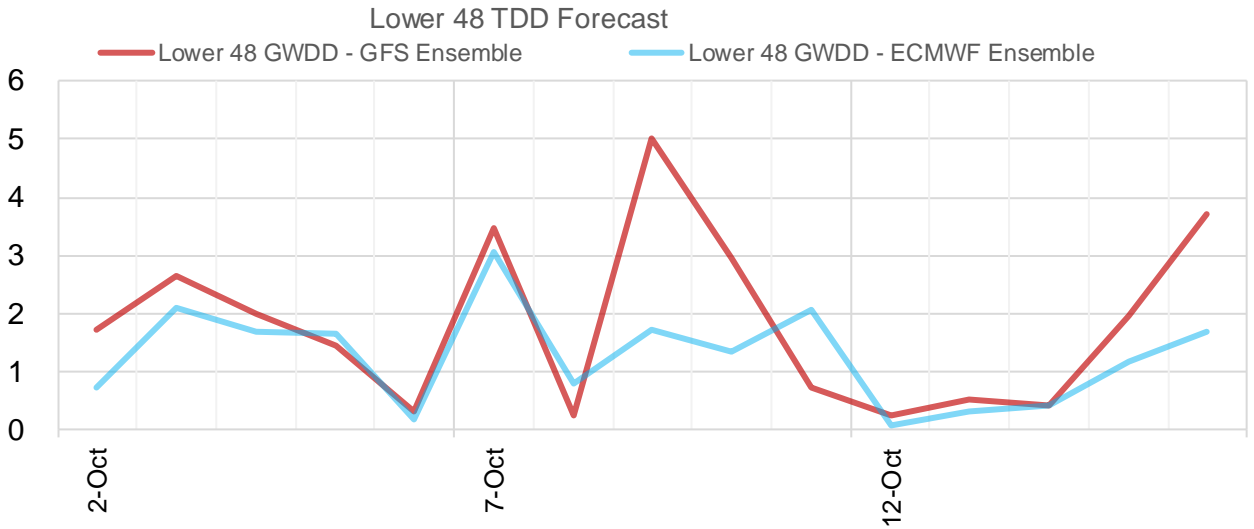
	Current	Δ from YD	Δ from 7D Avg
US ResComm	15.9	▲ 2.84	▲ 6.32

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	3.8	▲ 0.06	▼ -0.03

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	7.1	▲ 0.13	▲ 0.40

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.3	▲ 0.51	▲ 0.03

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



Source: WSI , Bloomberg

### Lower 48 Component Models

#### Daily Balances

	26-Sep	27-Sep	28-Sep	29-Sep	30-Sep	1-Oct	2-Oct	DoD	vs. 7D
<b>Lower 48 Dry Production</b>	<b>85.7</b>	<b>85.9</b>	<b>85.9</b>	<b>86.3</b>	<b>86.5</b>	<b>85.5</b>	<b>85.8</b>	▲ 0.3	▼ -0.2
<b>Canadian Imports</b>	<b>3.7</b>	<b>3.8</b>	<b>3.9</b>	<b>3.7</b>	<b>4.2</b>	<b>3.8</b>	<b>3.8</b>	▲ 0.1	▼ 0.0
L48 Power	29.1	30.5	32.3	31.7	29.9	30.2	31.4	▲ 1.2	▲ 0.8
L48 Residential & Commercial	6.9	7.5	10.0	11.5	10.8	13.0	15.9	▲ 2.8	▲ 5.9
L48 Industrial	20.8	21.2	21.4	21.2	20.5	19.7	19.0	▼ -0.7	▼ -1.8
L48 Lease and Plant Fuel	4.7	4.7	4.7	4.8	4.8	4.7	4.7	▲ 0.0	▼ 0.0
L48 Pipeline Distribution	1.8	1.9	2.1	2.1	2.0	2.1	2.3	▲ 0.2	▲ 0.3
<b>L48 Regional Gas Consumption</b>	<b>63.3</b>	<b>65.7</b>	<b>70.6</b>	<b>71.4</b>	<b>68.0</b>	<b>69.9</b>	<b>73.4</b>	▲ 3.5	▲ 5.2
<b>Net LNG Delivered</b>	<b>6.86</b>	<b>6.64</b>	<b>6.29</b>	<b>6.91</b>	<b>7.01</b>	<b>7.02</b>	<b>7.15</b>	▲ 0.1	▲ 0.4
<b>Total Mexican Exports</b>	<b>6.4</b>	<b>6.2</b>	<b>6.5</b>	<b>6.2</b>	<b>6.3</b>	<b>5.8</b>	<b>6.3</b>	▲ 0.5	▲ 0.1
<b>Implied Daily Storage Activity</b>	<b>12.9</b>	<b>11.1</b>	<b>6.5</b>	<b>5.6</b>	<b>9.4</b>	<b>6.5</b>	<b>2.8</b>		
<b>EIA Reported Daily Storage Activity</b>									
<b>Daily Model Error</b>									

#### EIA Storage Week Balances

	28-Aug	4-Sep	11-Sep	18-Sep	25-Sep	2-Oct	WoW	vs. 4W
<b>Lower 48 Dry Production</b>	<b>85.3</b>	<b>85.6</b>	<b>87.6</b>	<b>86.4</b>	<b>85.5</b>	<b>85.7</b>	▲ 0.3	▼ -0.5
<b>Canadian Imports</b>	<b>5.2</b>	<b>4.4</b>	<b>3.8</b>	<b>3.8</b>	<b>3.6</b>	<b>3.9</b>	▲ 0.2	▼ 0.0
L48 Power	41.6	37.6	35.4	33.6	30.8	30.7	▼ -0.1	▼ -3.7
L48 Residential & Commercial	7.9	7.4	8.4	8.0	9.9	9.6	▼ -0.3	▲ 1.1
L48 Industrial	19.3	19.0	18.3	19.9	19.7	20.7	▲ 1.1	▲ 1.5
L48 Lease and Plant Fuel	4.7	4.7	4.8	4.8	4.7	4.7	▲ 0.0	▼ 0.0
L48 Pipeline Distribution	2.4	2.2	2.2	2.1	2.0	2.0	▼ 0.0	▼ -0.1
<b>L48 Regional Gas Consumption</b>	<b>75.8</b>	<b>70.8</b>	<b>69.1</b>	<b>68.3</b>	<b>67.1</b>	<b>67.7</b>	▲ 0.6	▼ -1.1
<b>Net LNG Exports</b>	<b>3.9</b>	<b>3.0</b>	<b>5.2</b>	<b>7.3</b>	<b>5.8</b>	<b>6.8</b>	▲ 0.9	▲ 1.4
<b>Total Mexican Exports</b>	<b>6.6</b>	<b>6.5</b>	<b>6.4</b>	<b>6.2</b>	<b>6.4</b>	<b>6.3</b>	▼ -0.1	▼ -0.1
<b>Implied Daily Storage Activity</b>	<b>4.2</b>	<b>9.6</b>	<b>10.7</b>	<b>8.3</b>	<b>9.7</b>	<b>8.9</b>	<b>-0.8</b>	
<b>EIA Reported Daily Storage Activity</b>	<b>5.0</b>	<b>10.0</b>	<b>12.7</b>	<b>9.4</b>	<b>10.9</b>			
<b>Daily Model Error</b>	<b>-0.8</b>	<b>-0.4</b>	<b>-2.0</b>	<b>-1.1</b>	<b>-1.2</b>			

#### Monthly Balances

	2Yr Ago	LY	MTD				MoM	vs. LY	
	Oct-18	Oct-19	May-20	Jun-20	Jul-20	Aug-20	Sep-20		
<b>Lower 48 Dry Production</b>	<b>86.9</b>	<b>94.7</b>	<b>85.3</b>	<b>85.3</b>	<b>86.2</b>	<b>86.2</b>	<b>85.2</b>	▼ -0.9	▼ -9.5
<b>Canadian Imports</b>	<b>4.7</b>	<b>4.6</b>	<b>3.9</b>	<b>4.0</b>	<b>4.4</b>	<b>4.9</b>	<b>4.2</b>	▼ -0.6	▼ -0.4
L48 Power	28.8	30.7	26.9	34.8	43.8	40.7	38.3	▼ -2.4	▲ 7.5
L48 Residential & Commercial	16.1	15.2	12.7	8.9	8.0	7.7	7.4	▼ -0.3	▼ -7.8
L48 Industrial	22.8	23.8	18.6	17.9	17.7	19.2	18.9	▼ -0.3	▼ -4.9
L48 Lease and Plant Fuel	4.9	5.2	4.8	4.8	4.9	4.7	4.7	▼ 0.0	▼ -0.5
L48 Pipeline Distribution	2.1	2.3	2.0	2.2	2.4	2.3	2.3	▼ -0.1	▲ 0.0
<b>L48 Regional Gas Consumption</b>	<b>74.7</b>	<b>77.2</b>	<b>65.0</b>	<b>68.6</b>	<b>76.8</b>	<b>74.6</b>	<b>71.5</b>	▼ -3.1	▼ -5.7
<b>Net LNG Exports</b>	<b>3.3</b>	<b>6.7</b>	<b>6.7</b>	<b>4.0</b>	<b>3.3</b>	<b>4.0</b>	<b>3.1</b>	▼ -1.0	▼ -3.6
<b>Total Mexican Exports</b>	<b>5.0</b>	<b>5.5</b>	<b>4.9</b>	<b>5.7</b>	<b>6.1</b>	<b>6.3</b>	<b>6.8</b>	▲ 0.5	▲ 1.3
<b>Implied Daily Storage Activity</b>	<b>8.6</b>	<b>10.0</b>	<b>12.7</b>	<b>11.0</b>	<b>4.4</b>	<b>6.2</b>	<b>8.1</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 2-Oct

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	8.6	1.4	10.0	70
East	1.8	1.8	3.6	25
Midwest	3.4	-0.1	3.3	23
Mountain	3.3	-3.0	0.3	2
South Central	-0.5	3.0	2.5	18
Pacific	0.6	-0.4	0.2	1

\*Adjustment Factor is calculated based on historical regional deltas

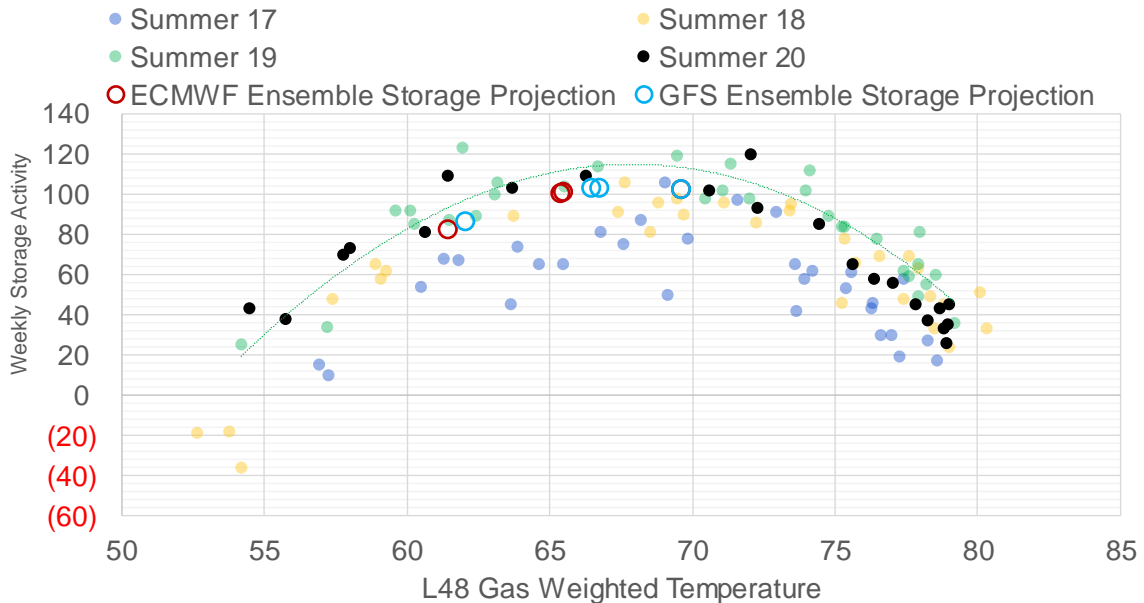
U.S. underground natural gas storage facilities by type (July 2015)



### Weather Model Storage Projection

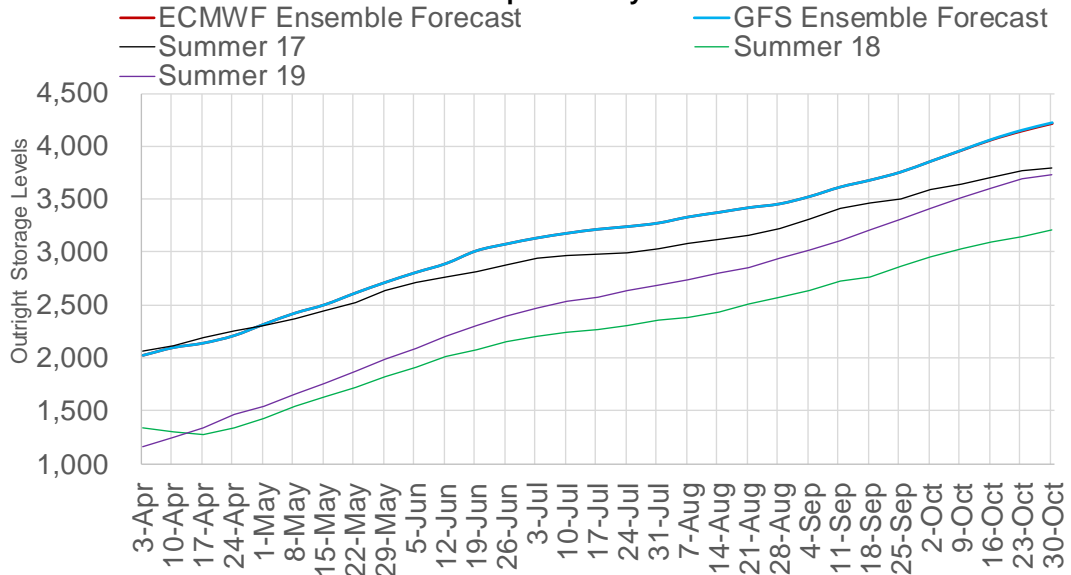
Next report and beyond	
Week Ending	Week Storage Projection
9-Oct	102
16-Oct	102
23-Oct	85

### Weather Storage Model - Next 4 Week Forecast



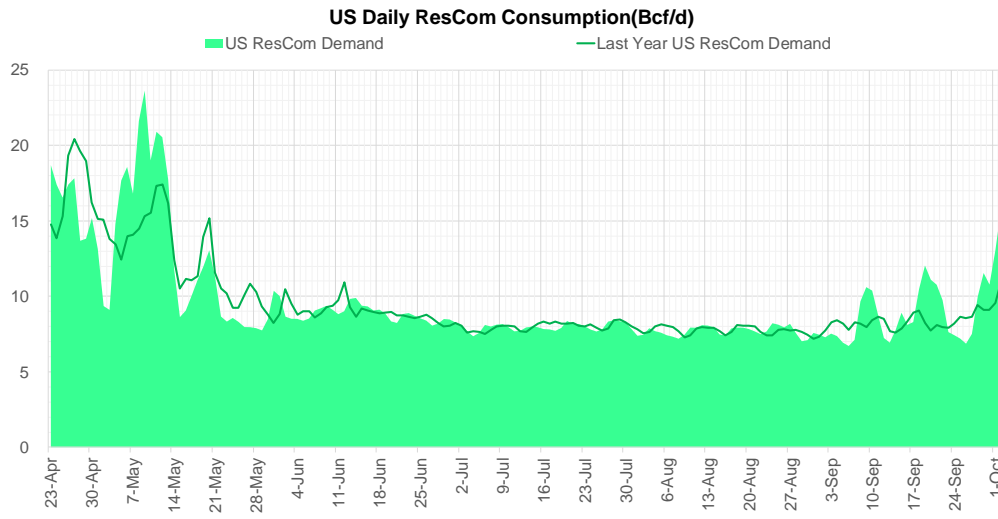
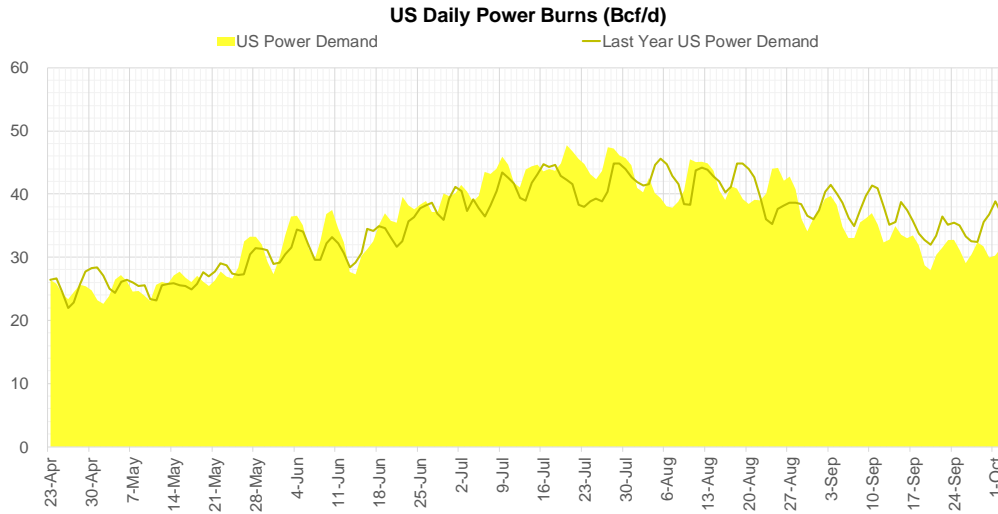
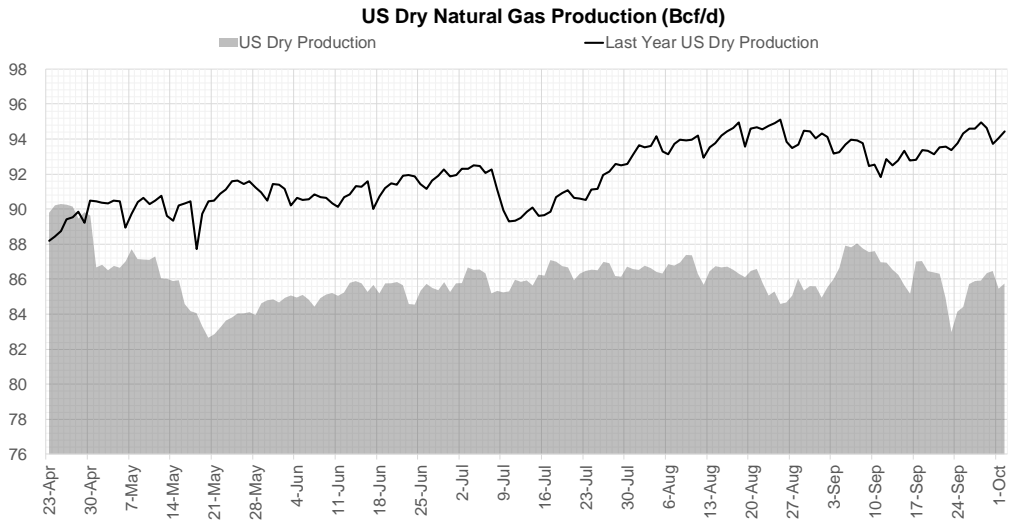
### Weather Based End of Winter Projection (Bcf)

10Y normals past 15 day forecast window



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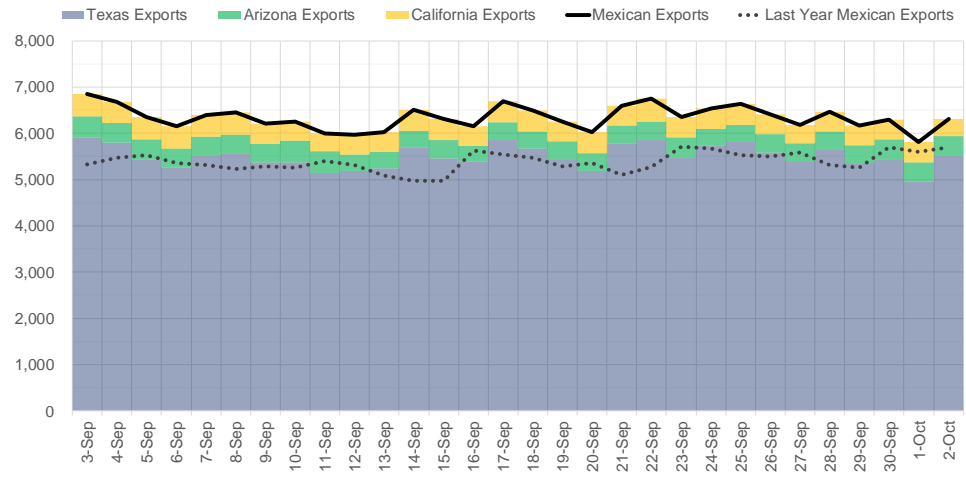
## Supply – Demand Trends



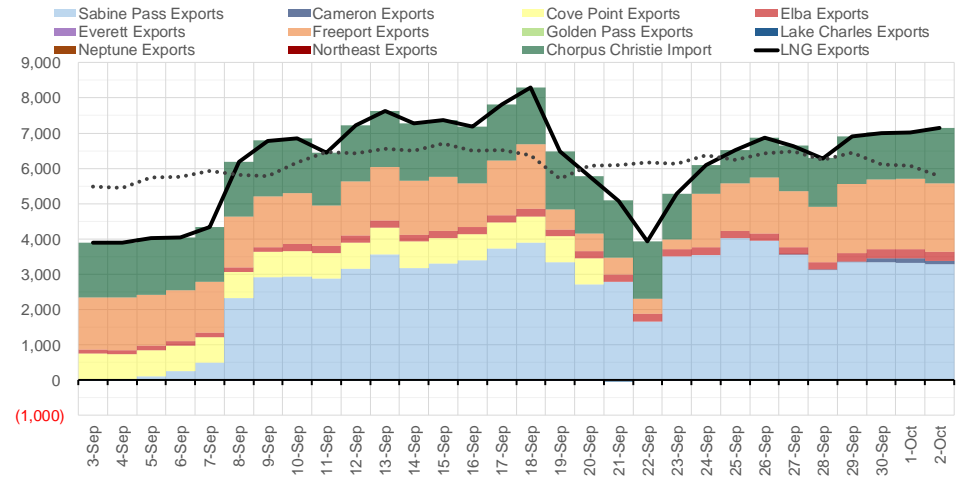
Source: Bloomberg

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



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



Source: Bloomberg

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### 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	2.00	11294	11	2020	P	2.00	34963
11	2020	P	1.75	7385	3	2021	P	2.00	34133
11	2020	C	4.00	6685	4	2021	C	5.00	33647
12	2020	P	2.00	5891	11	2020	P	2.25	27460
11	2020	P	2.25	5865	3	2021	C	4.00	27127
11	2020	C	3.50	5073	3	2021	C	3.25	26976
3	2021	C	4.00	4562	11	2020	C	3.50	26342
3	2021	P	2.00	4458	1	2021	C	4.50	25651
1	2021	C	7.00	4100	11	2020	C	5.00	25054
11	2020	C	3.00	3897	3	2021	C	6.00	24690
3	2021	C	3.25	3817	12	2020	P	2.00	24018
11	2020	C	3.25	3301	12	2020	P	2.50	24014
1	2021	C	3.75	3294	1	2021	C	3.50	23260
1	2021	C	4.50	3045	3	2021	C	3.00	22261
1	2021	C	5.00	2867	11	2020	C	4.00	21994
11	2020	C	2.75	2822	11	2020	C	3.00	21457
2	2021	C	4.00	2653	3	2021	C	3.50	21428
11	2020	C	2.60	2197	11	2020	C	3.25	19377
12	2020	C	4.50	2114	1	2021	C	5.00	17811
11	2020	P	2.65	2097	3	2021	C	7.00	17577
11	2020	P	2.80	2041	12	2020	C	3.75	17547
2	2021	C	3.50	1902	11	2020	P	2.50	17442
3	2021	C	6.00	1814	2	2021	C	5.00	17347
12	2020	C	3.75	1772	12	2020	C	4.00	16891
1	2021	C	10.00	1750	1	2021	C	3.00	16885
1	2021	P	2.00	1694	1	2021	P	2.50	16658
11	2020	P	2.20	1539	1	2021	C	3.75	16554
11	2020	P	2.50	1513	12	2020	P	1.50	14445
3	2021	C	3.50	1475	11	2020	C	2.75	14385
11	2020	C	2.50	1338	11	2020	P	2.65	14258
11	2020	C	3.30	1257	3	2021	C	5.00	14171
1	2021	P	2.50	1252	1	2021	P	2.25	13898
11	2020	P	2.35	1228	2	2021	C	3.50	13762
2	2021	P	2.50	1155	11	2020	P	2.20	13748
12	2020	C	3.65	1151	4	2021	C	3.00	13735
3	2021	P	2.50	1150	1	2021	P	2.00	13696
11	2020	P	1.95	1129	4	2021	P	2.00	13696
12	2020	C	5.00	1113	6	2021	C	4.00	13525
12	2020	P	3.00	1061	11	2020	P	2.80	13209
12	2020	P	2.80	1031	5	2021	C	3.00	13018
11	2020	P	2.05	1030	3	2021	P	2.50	12873
11	2020	P	2.30	1019	11	2020	P	1.75	12741
1	2021	C	3.50	935	1	2021	C	3.25	12681
3	2021	C	3.00	921	4	2021	C	2.75	12511
12	2020	C	3.25	913	12	2020	C	5.00	12406
1	2021	C	4.00	900	12	2020	C	3.50	12356
2	2021	P	2.00	900	1	2021	C	6.00	12183
12	2020	P	2.75	888	2	2021	P	2.50	12095
2	2021	C	5.00	834	2	2021	C	6.00	12005
					12	2020	C	3	11946

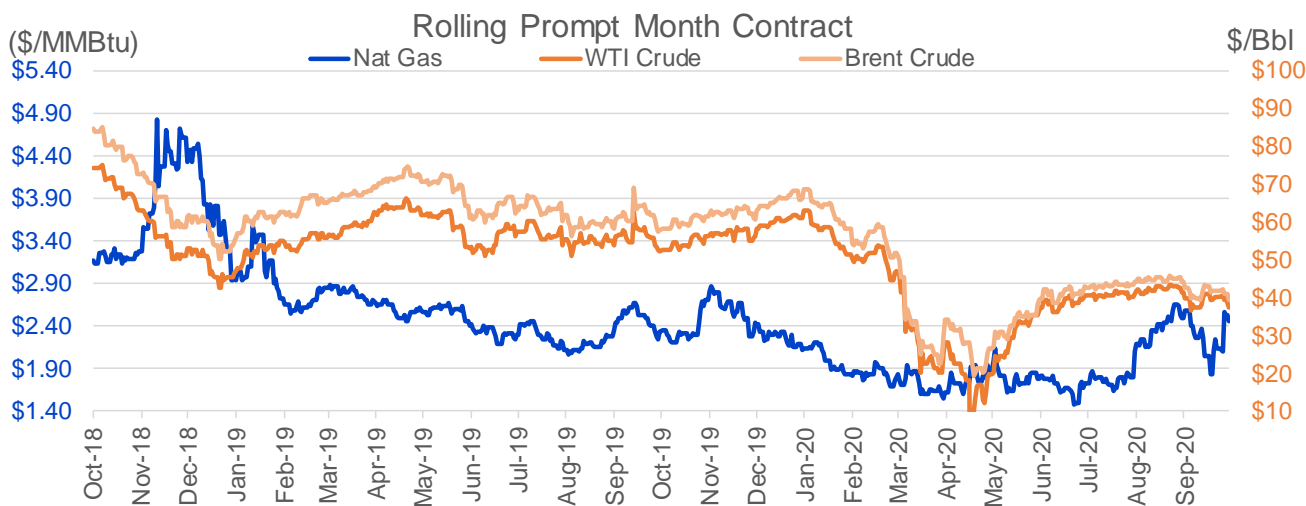
Source: CME, Nasdaq, ICE



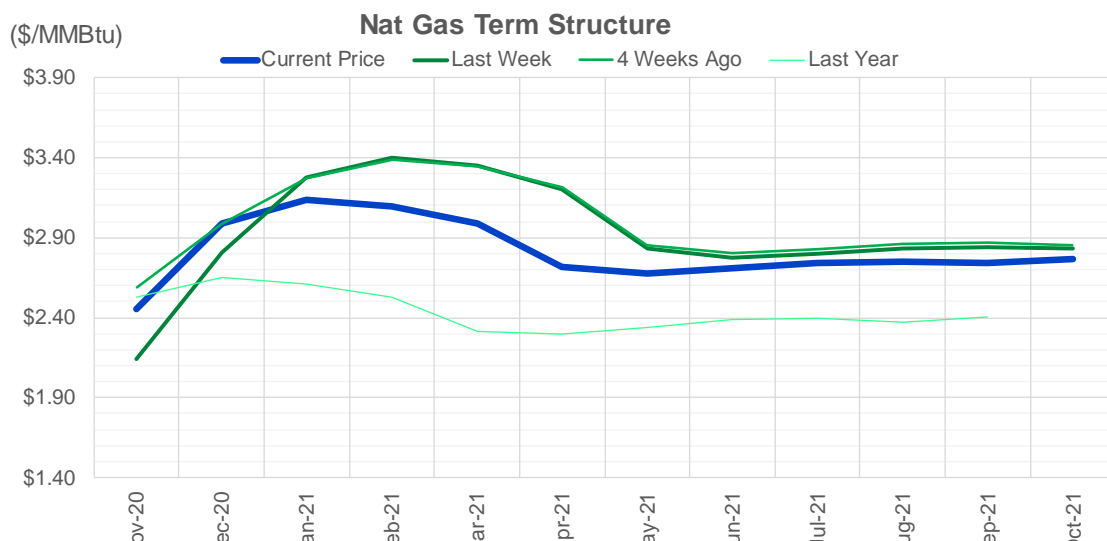
### Nat Gas Futures Open Interest CME, and ICE Combined

CME Henry Hub Futures (10,000 MMBtu)				ICE Henry Hub Futures Contract Equivalent (10,000 MM			
	Current	Prior	Daily Change	FOR JUNE 26	Current	Prior	Daily Change
NOV 20	293572	296680	-3108	NOV 20	81367	83570	-2202.5
DEC 20	146530	144538	1992	DEC 20	79656	78387	1268.5
JAN 21	142570	142072	498	JAN 21	87417	86836	580.25
FEB 21	64762	63687	1075	FEB 21	61188	60885	303.25
MAR 21	119827	118260	1567	MAR 21	81646	80467	1179.25
APR 21	81799	83992	-2193	APR 21	65292	64592	699.75
MAY 21	47423	47562	-139	MAY 21	59747	58609	1137.25
JUN 21	32546	32510	36	JUN 21	53130	53038	91.75
JUL 21	20998	20778	220	JUL 21	55475	55329	145.75
AUG 21	25965	25917	48	AUG 21	58712	58564	148
SEP 21	33734	33889	-155	SEP 21	52768	52764	4
OCT 21	79188	78923	265	OCT 21	79342	78632	709.75
NOV 21	29566	29617	-51	NOV 21	45731	45429	301.75
DEC 21	25522	25662	-140	DEC 21	44556	44509	47
JAN 22	26404	26309	95	JAN 22	39485	39180	305.25
FEB 22	15126	15080	46	FEB 22	33549	33284	265
MAR 22	18707	18697	10	MAR 22	35970	35689	281
APR 22	23522	23524	-2	APR 22	36694	36510	183.75
MAY 22	7151	7145	6	MAY 22	25982	25936	45.25
JUN 22	3877	3873	4	JUN 22	24697	24604	93.5
JUL 22	3439	3398	41	JUL 22	26451	26399	52.5
AUG 22	2326	2312	14	AUG 22	25006	24977	29.25
SEP 22	2235	2232	3	SEP 22	23870	23769	101
OCT 22	3671	3636	35	OCT 22	26928	26074	853.5
NOV 22	2808	2770	38	NOV 22	23347	23283	64.5
DEC 22	2971	2891	80	DEC 22	26772	25963	809
JAN 23	2833	2833	0	JAN 23	13555	13439	116.25
FEB 23	882	882	0	FEB 23	12751	12653	98
MAR 23	900	900	0	MAR 23	12911	12826	85.25
APR 23	2451	2451	0	APR 23	12136	12034	102

Source: CME, ICE



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	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21
<b>Current Price</b>	<b>\$2.451</b>	<b>\$2.989</b>	<b>\$3.136</b>	<b>\$3.095</b>	<b>\$2.985</b>	<b>\$2.714</b>	<b>\$2.678</b>	<b>\$2.708</b>	<b>\$2.745</b>	<b>\$2.754</b>	<b>\$2.741</b>	<b>\$2.770</b>
Last Week	\$2.139	\$2.807	\$3.277	\$3.398	\$3.348	\$3.200	\$2.834	\$2.777	\$2.801	\$2.834	\$2.842	\$2.829
vs. Last Week	\$0.312	\$0.182	-\$0.141	-\$0.303	-\$0.363	-\$0.486	-\$0.156	-\$0.069	-\$0.056	-\$0.080	-\$0.101	-\$0.059
4 Weeks Ago	\$2.588	\$2.987	\$3.276	\$3.389	\$3.350	\$3.217	\$2.852	\$2.806	\$2.830	\$2.860	\$2.867	\$2.855
vs. 4 Weeks Ago	-\$0.137	\$0.002	-\$0.140	-\$0.294	-\$0.365	-\$0.503	-\$0.174	-\$0.098	-\$0.085	-\$0.106	-\$0.126	-\$0.085
Last Year	\$2.352	\$2.524	\$2.648	\$2.614	\$2.525	\$2.315	\$2.297	\$2.340	\$2.384	\$2.392	\$2.375	\$2.401
vs. Last Year	\$0.099	\$0.465	\$0.488	\$0.481	\$0.460	\$0.399	\$0.381	\$0.368	\$0.361	\$0.362	\$0.366	\$0.369

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	0.90	1.56	0.66
TETCO M3	\$/MMBtu	0.99	1.18	0.19
FGT Zone 3	\$/MMBtu	1.28	2.20	0.92
Zone 6 NY	\$/MMBtu	1.28	1.22	-0.07
Chicago Citygate	\$/MMBtu	1.27	1.96	0.69
Michcon	\$/MMBtu	1.26	1.86	0.60
Columbia TCO Pool	\$/MMBtu	0.74	1.24	0.50
Ventura	\$/MMBtu	1.30	1.94	0.64
Rockies/Opal	\$/MMBtu	2.07	1.86	-0.21
El Paso Permian Basin	\$/MMBtu	0.33	1.38	1.05
Socal Citygate	\$/MMBtu	3.48	2.49	-0.99
Malin	\$/MMBtu	2.11	2.27	0.16
Houston Ship Channel	\$/MMBtu	1.60	2.14	0.54
Henry Hub Cash	\$/MMBtu	1.40	1.90	0.50
AECO Cash	C\$/GJ	1.27	1.77	0.50
Station2 Cash	C\$/GJ	1.17	2.85	1.68
Dawn Cash	C\$/GJ	1.24	1.88	0.64

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks		vs. Last Year
				Ago		
NatGas Jan/Apr	\$/MMBtu	-0.42	▲ 0.142	▲ 0.115	▲ 0.010	
NatGas Mar/Apr	\$/MMBtu	-0.271	▲ 0.095	▼ -0.636	▼ -0.538	
NatGas Oct/Nov	\$/MMBtu	0.35	▼ -0.317	▼ -0.048	▲ 0.285	
NatGas Oct/Jan	\$/MMBtu	1.04	▼ -0.224	▲ 0.234	▲ 0.688	
WTI Crude	\$/Bbl	37.40	▼ -2.850	▼ -2.370	▼ -15.410	
Brent Crude	\$/Bbl	39.55	▼ -2.370	▼ -3.110	▼ -18.820	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	109.33	▼ -3.290	▼ -5.820	▼ -80.120	
Propane, Mt. Bel	cents/Gallon	0.49	▼ -0.004	▲ 0.007	▲ 0.038	
Ethane, Mt. Bel	cents/Gallon	0.19	▼ -0.010	▼ -0.007	▼ -0.006	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.100	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -4.500	