

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](#)

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.88	▲ \$ 0.14	▲ \$ 0.23

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 40.00	▼ \$ (0.60)	▼ \$ (0.4)

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 42.28	▼ \$ (0.57)	▼ \$ (0.3)

00z GWDD Change

Cooler Change

Warmer Change

ECMWF Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	-0.4	-4.4	-0.8	-5.7
24 Hr Chg	-1.1	-2.4	-3.6	-7.1

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	-1.2	-8.3	4.0	-5.5
24 Hr Chg	0.1	-9.5	7.4	-2.0

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	83.4	▼ -0.82	▼ -2.27

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	30.9	▲ 1.86	▲ 0.05

	Current	Δ from YD	Δ from 7D Avg
US ResComm	10.2	▲ 0.56	▼ -0.50

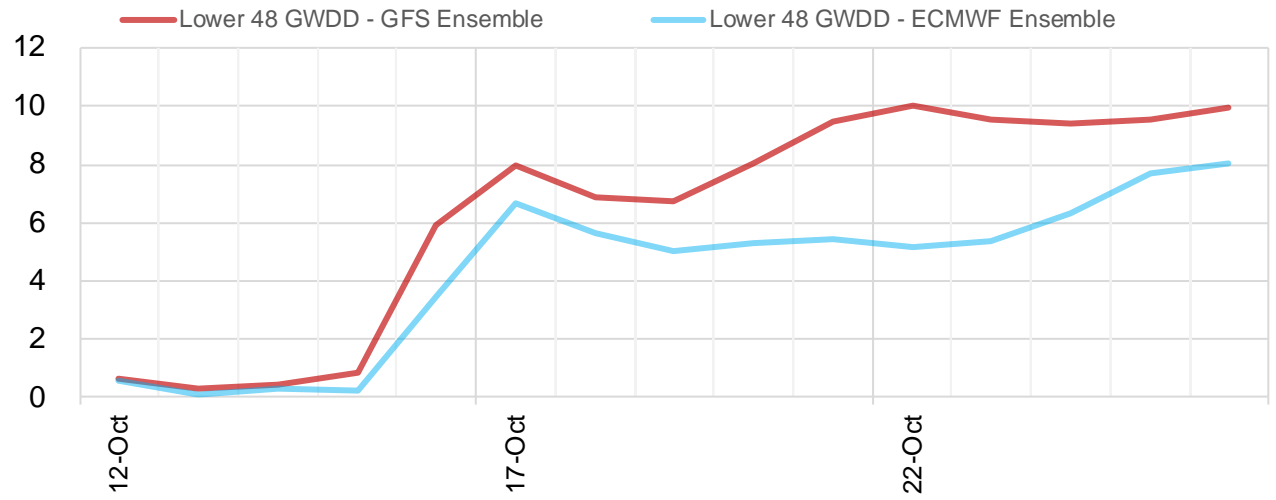
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	3.9	▼ -0.09	▼ -0.47

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	7.5	▲ 1.49	▲ 0.79

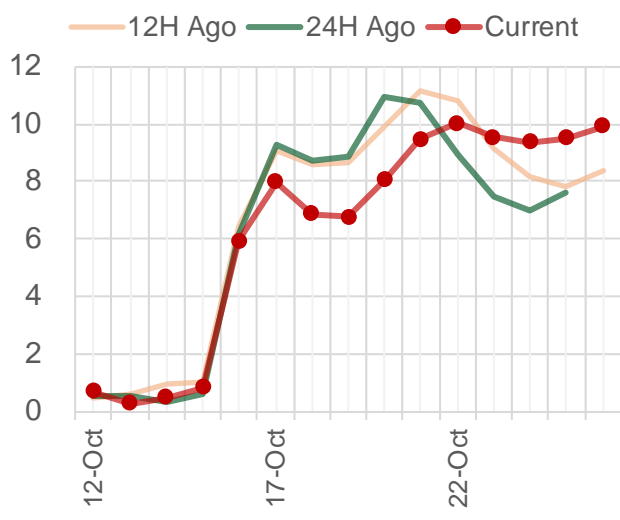
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.1	▼ -0.19	▼ -0.26

Short-term Weather Model Outlooks (00z)

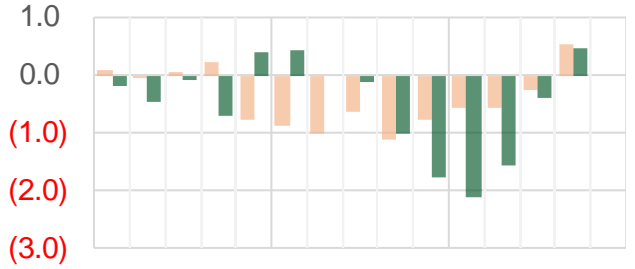
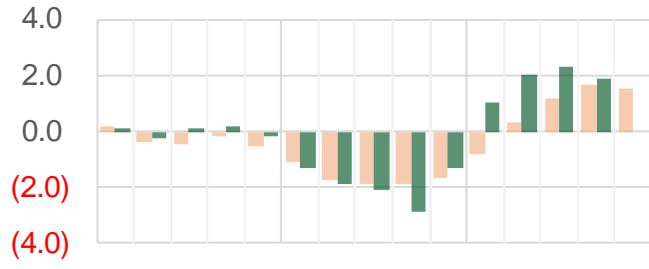
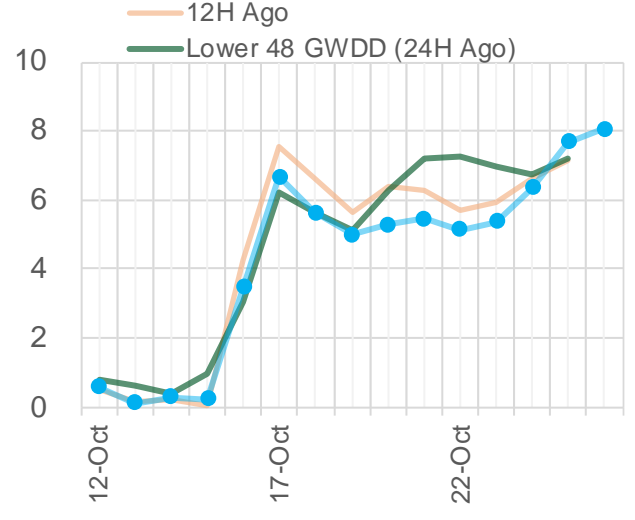
Lower 48 TDD Forecast



Lower 48 GWDD - GFS Ensemble



Lower 48 GWDD - ECMWF Ensemble



Source: WSI, Bloomberg

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Lower 48 Component Models

Daily Balances

	6-Oct	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	DoD	vs. 7D
Lower 48 Dry Production	86.6	85.8	86.2	85.2	83.0	84.2	83.4	▼ -0.8	▼ -1.8
Canadian Imports	4.5	4.7	4.5	4.0	4.1	4.0	3.9	▼ -0.1	▼ -0.4
L48 Power	31.4	32.1	31.5	31.1	29.7	29.1	30.9	▲ 1.9	▲ 0.1
L48 Residential & Commercial	11.0	8.9	12.1	10.2	8.2	9.7	10.2	▲ 0.6	▲ 0.2
L48 Industrial	20.2	20.0	20.5	20.1	20.1	20.4	20.5	▲ 0.0	▲ 0.3
L48 Lease and Plant Fuel	4.8	4.7	4.7	4.7	4.6	4.6	4.6	▼ 0.0	▼ -0.1
L48 Pipeline Distribution	2.1	2.0	2.1	2.0	1.9	1.9	2.0	▲ 0.1	▲ 0.0
L48 Regional Gas Consumption	69.5	67.7	71.0	68.0	64.4	65.7	68.2	▲ 2.5	▲ 0.5
Net LNG Delivered	8.06	7.96	6.90	5.93	5.51	6.03	7.52	▲ 1.5	▲ 0.8
Total Mexican Exports	6.4	6.5	6.7	6.6	6.0	6.3	6.1	▼ -0.2	▼ -0.3
Implied Daily Storage Activity	7.2	8.3	6.2	8.6	11.1	10.1	5.4		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	4-Sep	11-Sep	18-Sep	25-Sep	2-Oct	9-Oct	WoW	vs. 4W
Lower 48 Dry Production	87.1	89.0	87.8	86.9	87.3	87.3	▲ 0.0	▼ -0.5
Canadian Imports	4.4	3.8	3.8	3.6	3.9	4.5	▲ 0.7	▲ 0.8
L48 Power	37.6	35.4	33.5	30.8	30.6	30.7	▲ 0.0	▼ -1.9
L48 Residential & Commercial	7.4	8.4	8.0	9.9	9.5	13.6	▲ 4.1	▲ 4.6
L48 Industrial	20.4	19.7	21.3	21.2	22.2	20.9	▼ -1.3	▼ -0.2
L48 Lease and Plant Fuel	4.8	4.9	4.8	4.8	4.8	4.8	▲ 0.0	▼ 0.0
L48 Pipeline Distribution	2.2	2.2	2.1	2.0	2.0	2.2	▲ 0.2	▲ 0.1
L48 Regional Gas Consumption	72.3	70.5	69.8	68.6	69.1	72.1	▲ 3.0	▲ 2.6
Net LNG Exports	3.0	5.2	7.3	5.8	6.8	7.5	▲ 0.7	▲ 1.2
Total Mexican Exports	6.5	6.4	6.2	6.4	6.3	6.2	▼ -0.1	▼ -0.2
Implied Daily Storage Activity	9.6	10.8	8.3	9.6	9.0	6.1	-2.9	
EIA Reported Daily Storage Activity	10.0	12.7	9.4	10.9	10.7			
Daily Model Error	-0.4	-1.9	-1.1	-1.2	-1.7			

Monthly Balances

	2Yr Ago	LY					MTD	MoM	vs. LY
	Oct-18	Oct-19	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20		
Lower 48 Dry Production	86.9	94.7	85.3	86.2	86.4	87.7	86.2	▼ -1.5	▼ -8.5
Canadian Imports	4.7	4.6	4.0	4.4	4.8	3.8	4.3	▲ 0.5	▼ -0.4
L48 Power	28.8	30.7	35.0	43.8	40.6	33.3	30.5	▼ -2.8	▼ -0.3
L48 Residential & Commercial	16.1	15.2	8.8	8.0	7.7	8.7	12.2	▲ 3.5	▼ -3.0
L48 Industrial	22.6	24.0	19.2	19.2	20.6	21.0	20.8	▼ -0.2	▼ -3.2
L48 Lease and Plant Fuel	4.9	5.2	4.8	4.9	4.8	4.8	4.7	▼ -0.1	▼ -0.5
L48 Pipeline Distribution	2.1	2.3	2.2	2.4	2.3	2.1	2.1	▲ 0.0	▼ -0.2
L48 Regional Gas Consumption	74.5	77.4	70.1	78.4	76.1	69.8	70.2	▲ 0.4	▼ -7.2
Net LNG Exports	3.3	6.7	4.0	3.3	4.0	5.9	7.0	▲ 1.1	▲ 0.4
Total Mexican Exports	5.0	5.5	5.7	6.1	6.3	6.4	6.2	▼ -0.2	▲ 0.7
Implied Daily Storage Activity	8.8	9.8	9.5	2.8	4.8	9.4	7.0		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

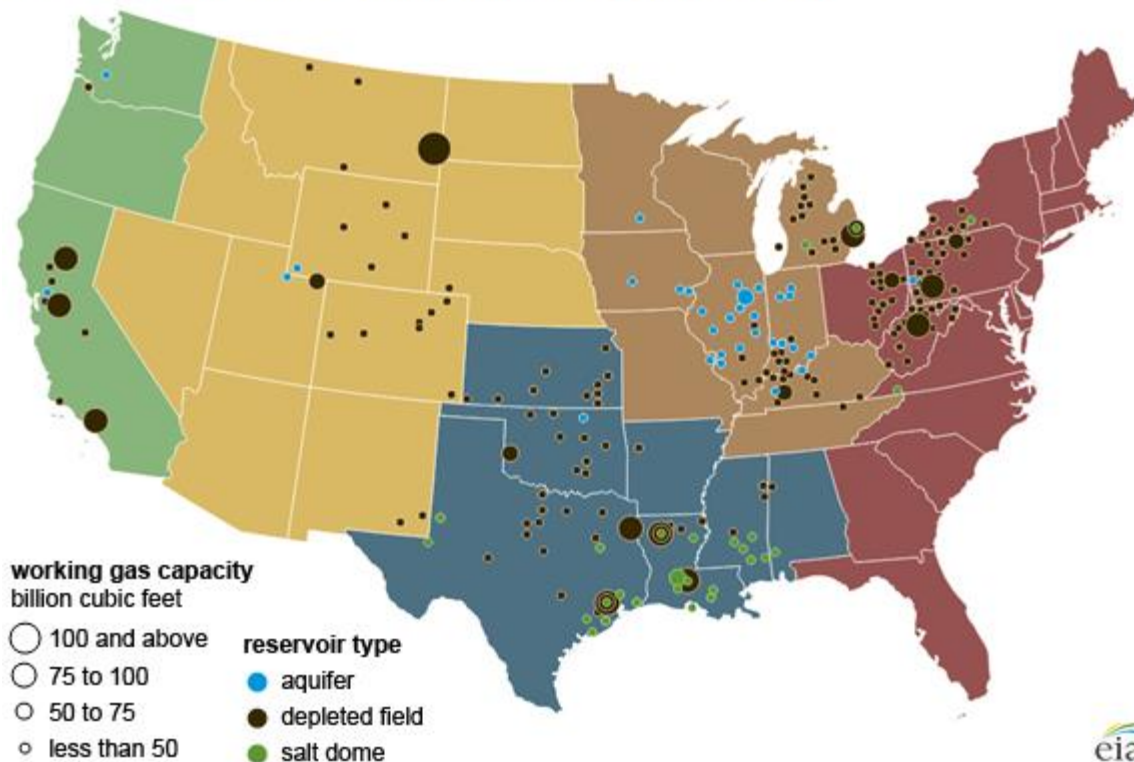
Regional S/D Models Storage Projection

Week Ending 9-Oct

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	5.8	1.8	7.6	53
East	0.6	1.7	2.2	16
Midwest	1.2	0.5	1.7	12
Mountain	4.4	-2.7	1.6	12
South Central	-0.7	2.5	1.8	12
Pacific	0.4	-0.2	0.2	2

*Adjustment Factor is calculated based on historical regional deltas

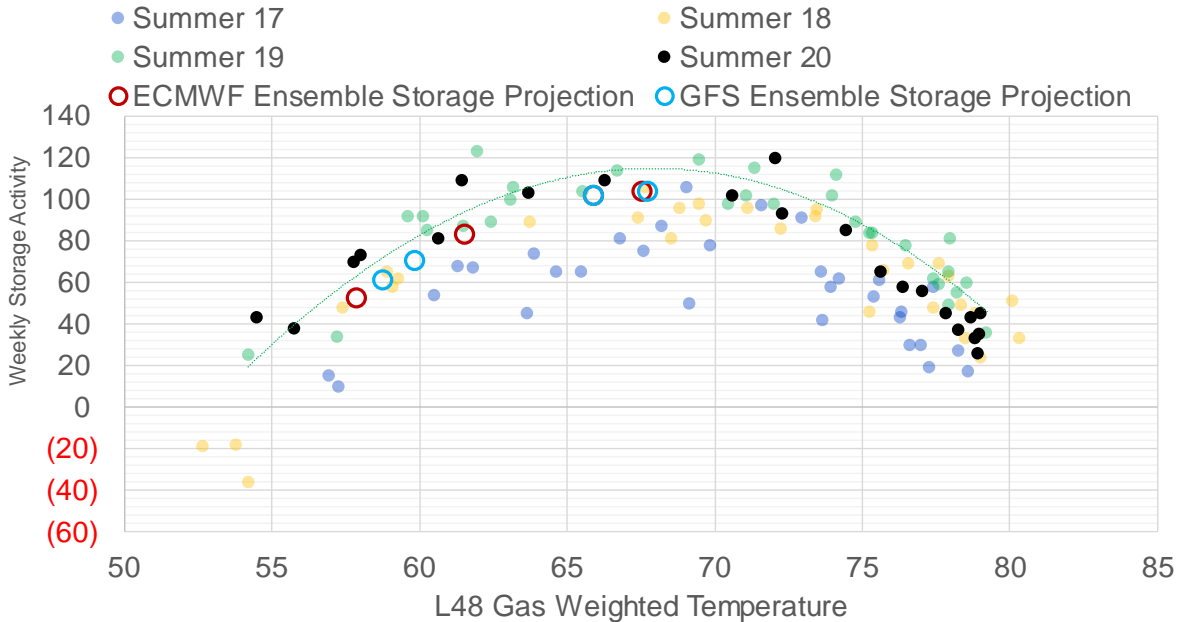
U.S. underground natural gas storage facilities by type (July 2015)



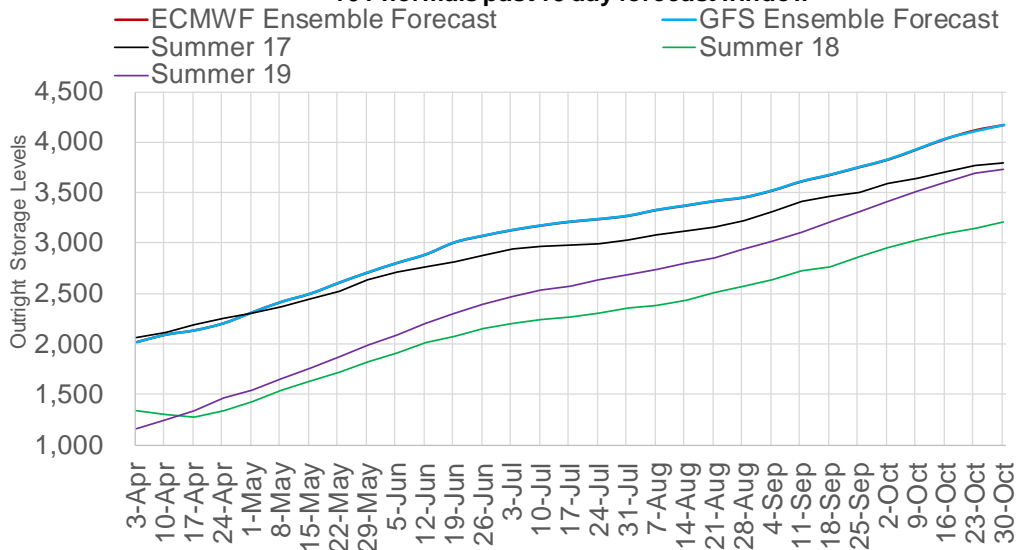
Weather Model Storage Projection

Next report and beyond	
Week Ending	Week Storage Projection
16-Oct	104
23-Oct	77
30-Oct	57

Weather Storage Model - Next 4 Week Forecast



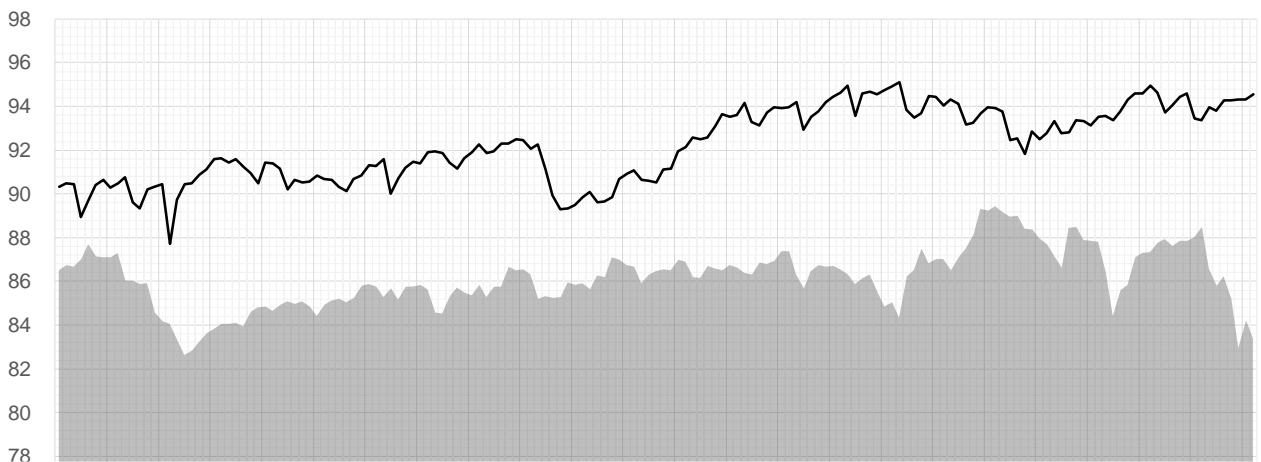
Weather Based End of Winter Projection (Bcf) 10Y normals past 15 day forecast window



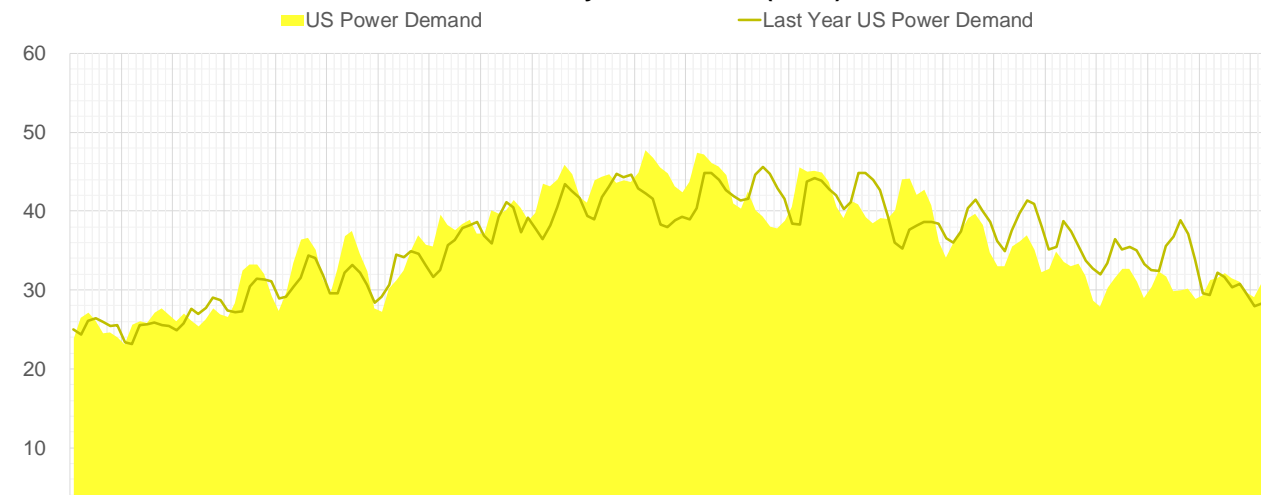
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US Dry Natural Gas Production (Bcf/d)

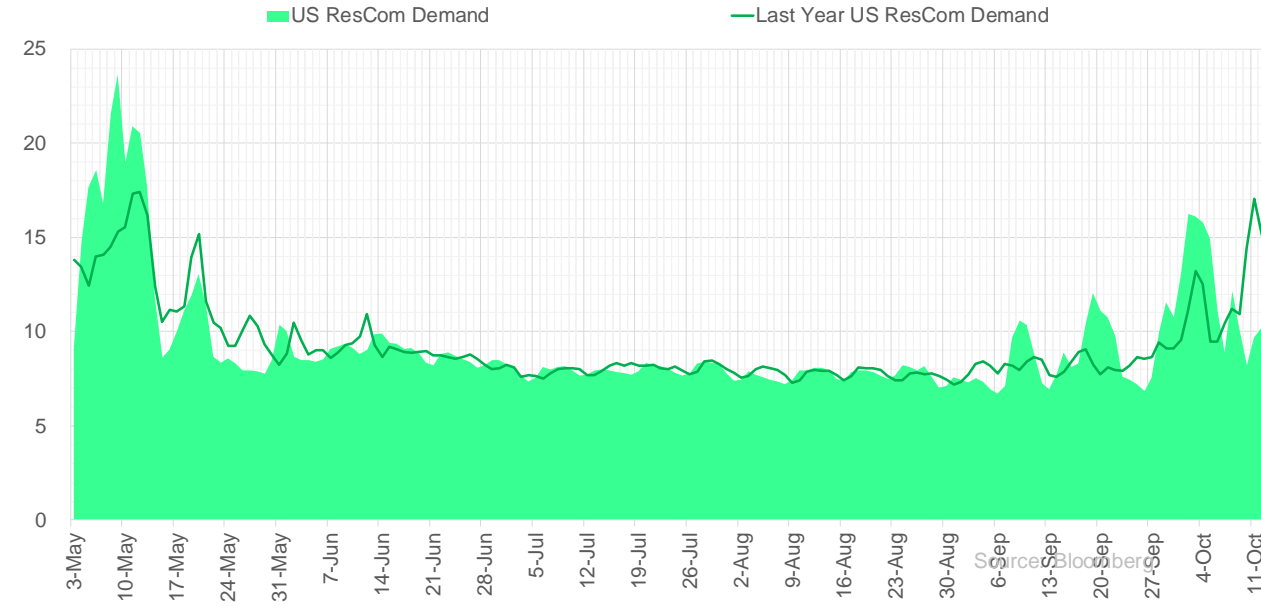
Supply - Demand Trends



US Daily Power Burns (Bcf/d)

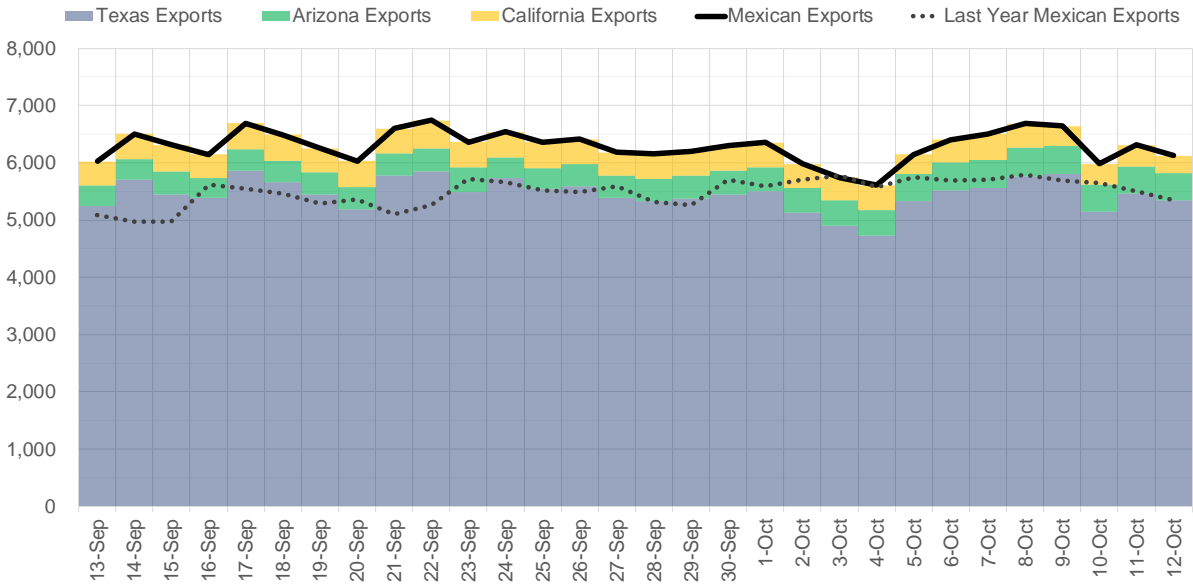


US Daily ResCom Consumption (Bcf/d)

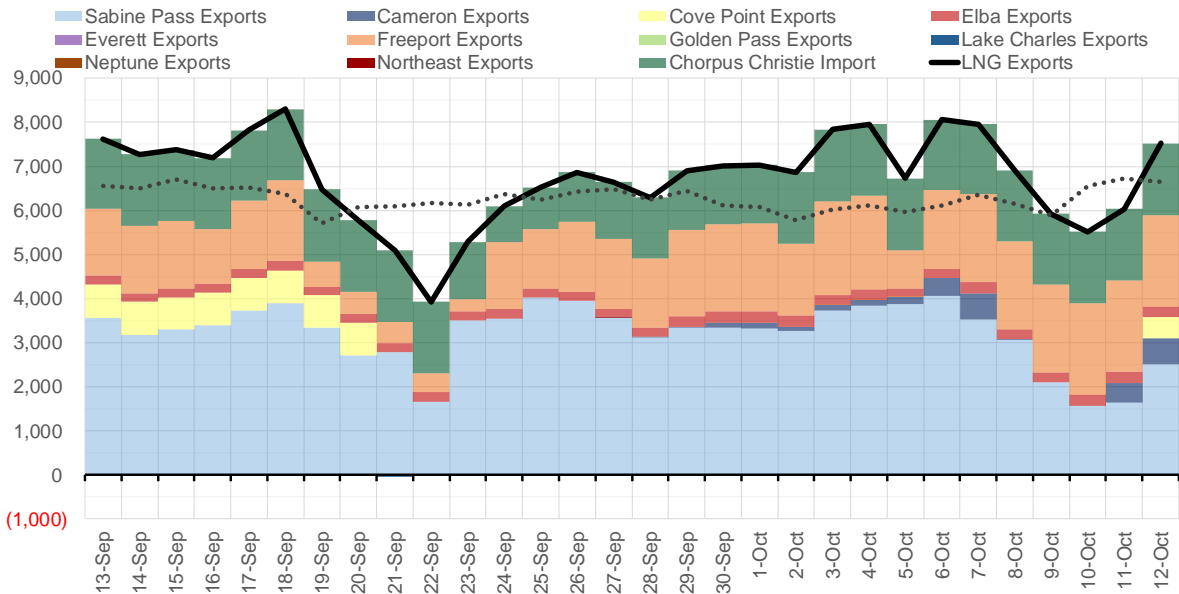


Source: Bloomberg

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

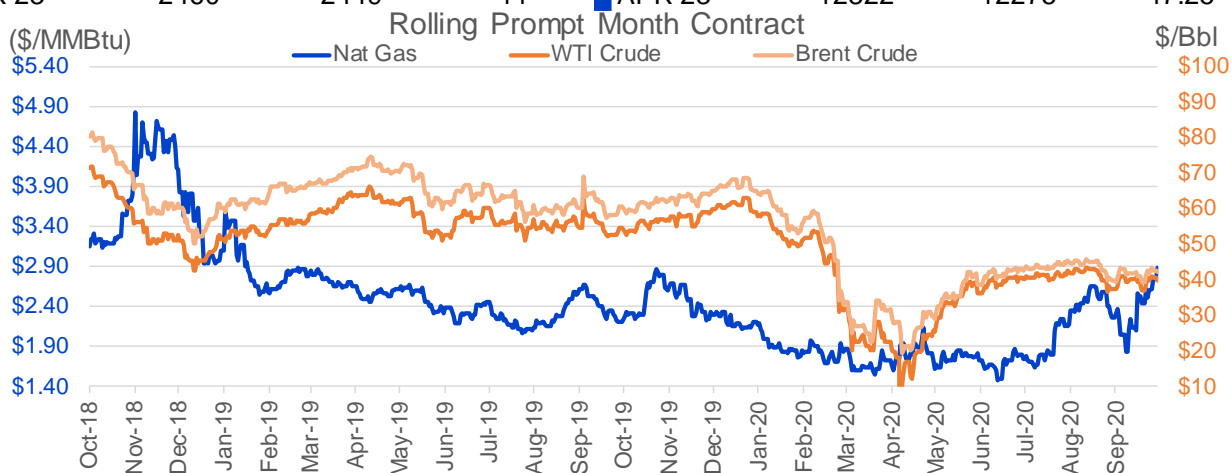
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
11	2020	C	3.25	5458	11	2020	P	2.00	49696
11	2020	P	2.00	5201	3	2021	P	2.00	34277
11	2020	P	2.50	5122	12	2020	P	2.00	31708
11	2020	P	2.25	4951	11	2020	C	3.50	31336
11	2020	C	3.00	4759	11	2020	C	3.25	29903
11	2020	P	2.40	4439	11	2020	C	4.00	28057
11	2020	P	2.30	3483	3	2021	C	6.00	27876
11	2020	C	3.55	3104	1	2021	C	4.50	27652
3	2021	C	5.00	3075	3	2021	C	3.25	27176
11	2020	P	1.75	2949	3	2021	C	4.00	27156
8	2021	P	2.25	2750	4	2021	C	5.00	26967
12	2020	C	4.00	2565	1	2021	C	3.50	25798
3	2021	C	12.00	2510	12	2020	P	2.50	25707
3	2021	C	6.00	2500	11	2020	C	3.00	25107
1	2021	P	2.25	2153	11	2020	P	2.25	23613
12	2020	C	3.25	2119	11	2020	C	5.00	21921
8	2021	C	4.00	2075	3	2021	C	5.00	21822
12	2020	C	5.50	1926	3	2021	C	7.00	21637
11	2020	P	2.20	1881	2	2021	C	5.00	20932
11	2020	C	2.75	1858	3	2021	C	3.00	20761
11	2020	P	2.60	1839	3	2021	C	3.50	20006
11	2020	P	2.75	1773	4	2021	C	4.00	19128
1	2021	P	2.00	1760	12	2020	C	4.00	18967
11	2020	C	4.00	1733	11	2020	C	2.75	18862
11	2020	C	3.50	1630	11	2020	P	1.75	18595
11	2020	P	2.70	1628	11	2020	C	3.75	18569
3	2021	C	4.00	1540	12	2020	C	3.75	18529
10	2021	C	3.50	1500	1	2021	C	5.00	18396
3	2022	C	4.00	1500	1	2021	P	2.50	18125
12	2020	P	2.90	1362	11	2020	P	2.50	16951
4	2021	C	5.00	1306	1	2021	C	3.00	16885
3	2021	C	8.00	1250	1	2021	C	6.00	16738
11	2020	C	2.80	1205	1	2021	C	3.75	16663
2	2021	C	5.00	1204	1	2021	P	2.25	15579
11	2020	P	2.55	1123	12	2020	C	3.50	15323
11	2020	P	2.10	1111	2	2021	C	3.50	15034
4	2021	P	2.50	1102	11	2020	P	2.65	14509
12	2020	P	2.50	1082	12	2020	P	1.50	14450
12	2020	P	2.75	1047	12	2020	C	4.50	14357
3	2021	C	3.25	1004	4	2021	C	3.00	14310
3	2022	C	5.50	1000	12	2020	C	5.00	14304
11	2020	P	2.35	989	1	2021	P	2.00	14267
12	2020	P	3.20	979	11	2020	P	2.20	14117
10	2021	C	4.00	975	4	2021	P	2.00	13896
4	2021	C	3.50	900	3	2021	P	2.50	13787
5	2021	C	3.50	900	2	2021	P	2.50	13753
6	2021	C	3.50	900	5	2021	C	3.00	13673
7	2021	C	3.50	900	6	2021	C	4.00	13320
8	2021	C	3.50	900	11	2020	P	2.80	13205
					1	2021	C	3.25	13137

Source: CME, ICE

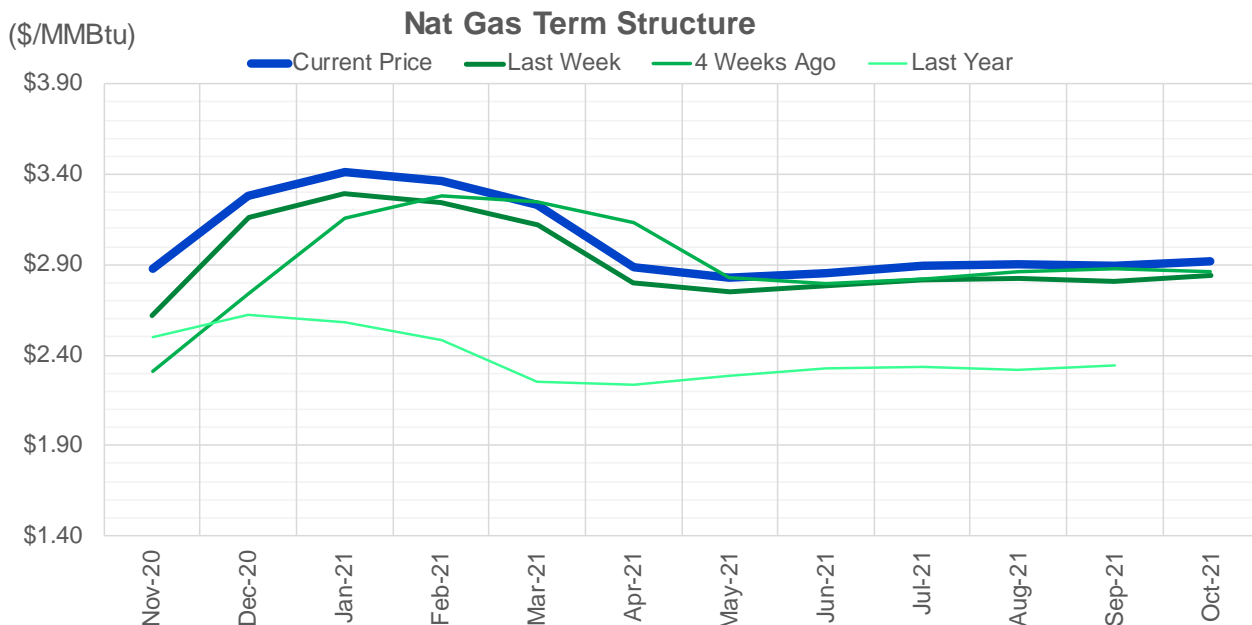
Nat Gas Futures Open Interest

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	185396	219573	-34177	NOV 20	77679	79972	-2292.5
DEC 20	156775	158750	-1975	DEC 20	79722	80089	-366.75
JAN 21	166872	147780	19092	JAN 21	88662	86934	1728.5
FEB 21	75400	73766	1634	FEB 21	63191	62712	479.75
MAR 21	133770	132124	1646	MAR 21	83552	82700	852.25
APR 21	84862	84917	-55	APR 21	67387	66820	567.25
MAY 21	42626	46543	-3917	MAY 21	62557	62265	292
JUN 21	32656	32227	429	JUN 21	54597	54324	272.75
JUL 21	22610	22051	559	JUL 21	56903	56771	131.75
AUG 21	25245	25149	96	AUG 21	60138	59851	287
SEP 21	35258	34172	1086	SEP 21	54467	54045	422
OCT 21	85259	80649	4610	OCT 21	72886	74355	-1468.5
NOV 21	31178	30411	767	NOV 21	47981	47583	398
DEC 21	26320	25830	490	DEC 21	45592	45406	186
JAN 22	27940	27552	388	JAN 22	41075	41007	68.75
FEB 22	16236	16179	57	FEB 22	34094	34043	50.75
MAR 22	18995	19442	-447	MAR 22	37009	36902	106.75
APR 22	23527	24485	-958	APR 22	36649	37519	-870.25
MAY 22	8139	7692	447	MAY 22	26888	26781	107
JUN 22	4049	3847	202	JUN 22	25824	25703	120.5
JUL 22	3816	3718	98	JUL 22	27535	27410	124.5
AUG 22	2444	2474	-30	AUG 22	25780	25679	101
SEP 22	2325	2290	35	SEP 22	24864	24720	144.25
OCT 22	3680	3675	5	OCT 22	27614	27733	-118.75
NOV 22	2869	2871	-2	NOV 22	24217	24228	-10.5
DEC 22	3088	3079	9	DEC 22	27373	27384	-10.75
JAN 23	2866	2858	8	JAN 23	13843	13917	-73.25
FEB 23	890	890	0	FEB 23	12999	12948	51.5
MAR 23	896	896	0	MAR 23	13208	13153	54.25
APR 23	2460	2449	11	APR 23	12322	12275	47.25



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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
Current Price	\$2.881	\$3.280	\$3.414	\$3.366	\$3.235	\$2.885	\$2.829	\$2.857	\$2.898	\$2.903	\$2.892	\$2.920
Last Week	\$2.615	\$3.161	\$3.293	\$3.247	\$3.122	\$2.801	\$2.751	\$2.780	\$2.817	\$2.825	\$2.811	\$2.841
vs. Last Week	\$0.266	\$0.119	\$0.121	\$0.119	\$0.113	\$0.084	\$0.078	\$0.077	\$0.081	\$0.078	\$0.081	\$0.079
4 Weeks Ago	\$2.310	\$2.740	\$3.160	\$3.284	\$3.247	\$3.133	\$2.831	\$2.794	\$2.824	\$2.862	\$2.874	\$2.862
vs. 4 Weeks Ago	\$0.571	\$0.540	\$0.254	\$0.082	-\$0.012	-\$0.248	-\$0.002	\$0.063	\$0.074	\$0.041	\$0.018	\$0.058
Last Year	\$2.280	\$2.498	\$2.622	\$2.583	\$2.481	\$2.253	\$2.237	\$2.281	\$2.329	\$2.337	\$2.318	\$2.344
vs. Last Year	\$0.601	\$0.782	\$0.792	\$0.783	\$0.754	\$0.632	\$0.592	\$0.576	\$0.569	\$0.566	\$0.574	\$0.576

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	0.74	3.64	2.90
TETCO M3	\$/MMBtu	0.57	2.35	1.78
FGT Zone 3	\$/MMBtu	0.60	2.65	2.05
Zone 6 NY	\$/MMBtu	0.60	2.53	1.93
Chicago Citygate	\$/MMBtu	1.24	2.47	1.23
Michcon	\$/MMBtu	1.14	2.41	1.27
Columbia TCO Pool	\$/MMBtu	0.59	2.21	1.62
Ventura	\$/MMBtu	1.21	2.46	1.25
Rockies/Opal	\$/MMBtu	1.47	2.40	0.93
El Paso Permian Basin	\$/MMBtu	0.50	1.32	0.82
Socal Citygate	\$/MMBtu	1.89	2.92	1.03
Malin	\$/MMBtu	1.49	2.89	1.40
Houston Ship Channel	\$/MMBtu	2.31	2.57	0.26
Henry Hub Cash	\$/MMBtu	1.47	2.42	0.94
AECO Cash	C\$/GJ	1.17	2.12	0.95
Station2 Cash	C\$/GJ	1.12	4.17	3.05
Dawn Cash	C\$/GJ	1.20	2.49	1.29

Source: CME, Bloomberg

	Units	Current Price	vs. 4 Weeks			
			vs. Last Week	Ago	vs. Last Year	
NatGas Jan/Apr	\$/MMBtu	-0.53	▼ -0.037	▼ -0.076	▼ -0.106	
NatGas Mar/Apr	\$/MMBtu	-0.350	▼ -0.029	▼ -0.652	▼ -0.615	
NatGas Oct/Nov	\$/MMBtu	0.78	▲ 0.266	▲ 0.350	▲ 0.710	
NatGas Oct/Jan	\$/MMBtu	1.31	▲ 0.121	▲ 0.339	▲ 0.957	
WTI Crude	\$/Bbl	40.00	▲ 0.780	▲ 2.740	▼ -13.590	
Brent Crude	\$/Bbl	42.28	▲ 0.990	▲ 2.670	▼ -17.070	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	117.49	▲ 4.160	▲ 8.150	▼ -74.020	
Propane, Mt. Bel	cents/Gallon	0.52	▲ 0.011	▲ 0.037	▲ 0.058	
Ethane, Mt. Bel	cents/Gallon	0.20	▼ -0.004	▼ -0.013	▲ 0.006	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.100	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -4.500	