

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 3.01	▼ \$ (0.01)	▲ \$ 0.18

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 40.40	▲ \$ 0.37	▼ \$ (0.4)

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 42.13	▲ \$ 0.40	▼ \$ (0.7)

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- [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	-0.1	0.2	-1.3	-1.3
24 Hr Chg	2.7	1.3	-3.3	0.7

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	2.6	-0.6	0.1	2.1
24 Hr Chg	5.0	-5.2	-5.3	-5.5

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	88.5	▼ -0.49	▼ -0.46

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	31.0	▲ 2.38	▲ 2.90

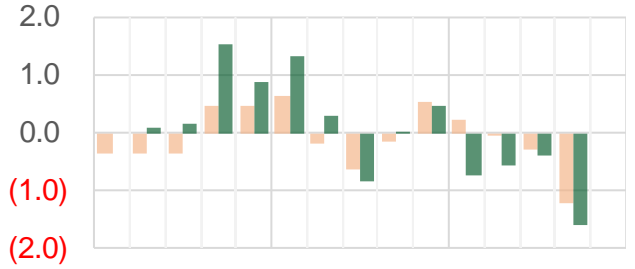
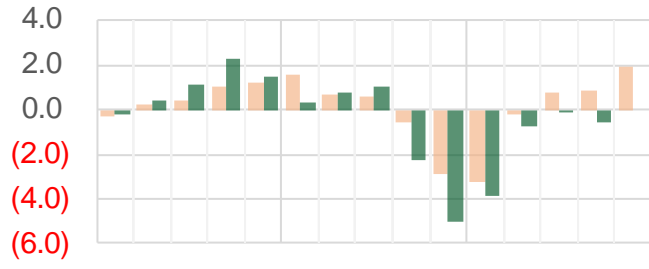
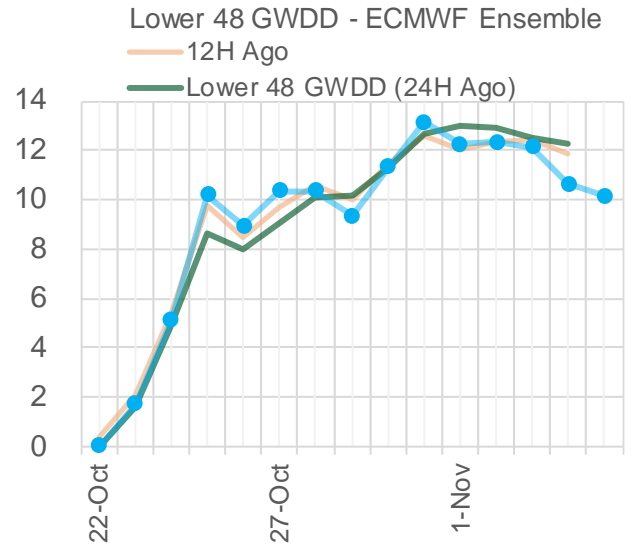
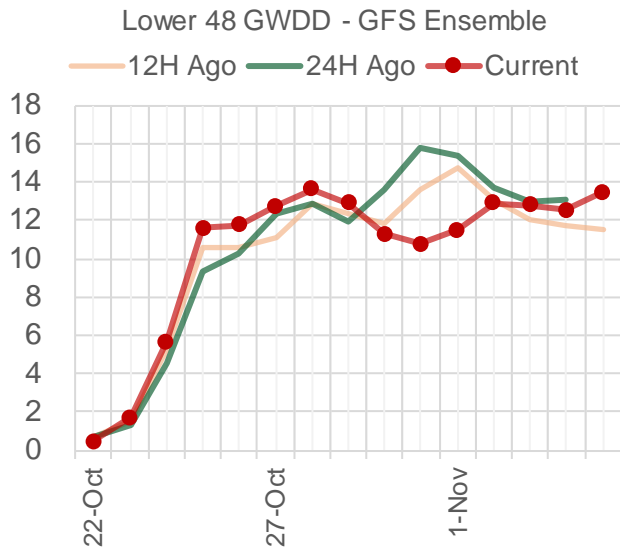
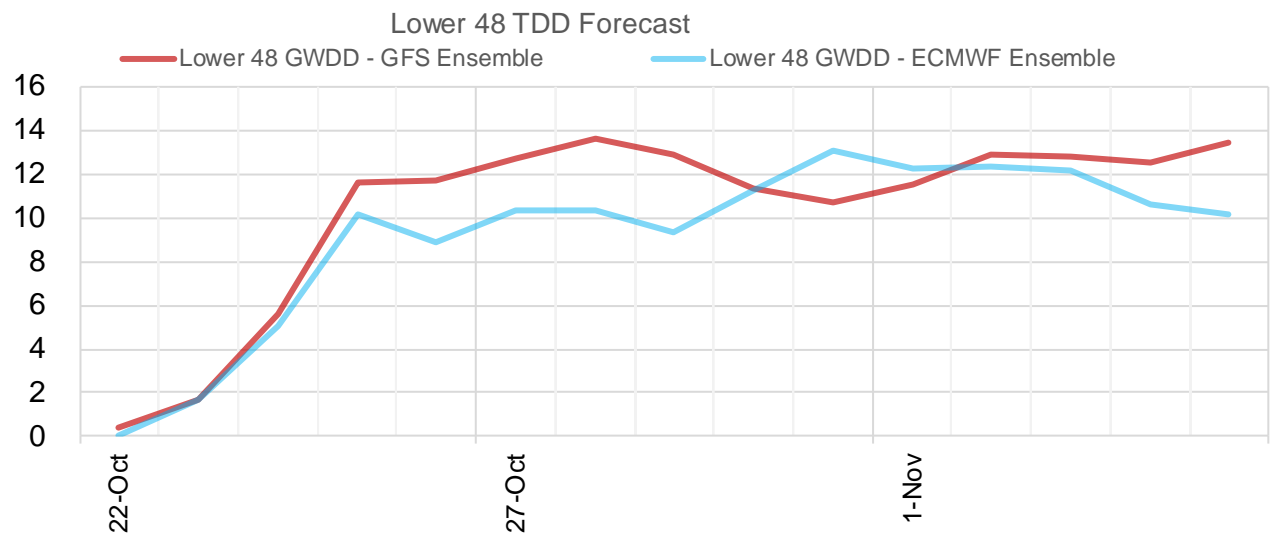
	Current	Δ from YD	Δ from 7D Avg
US ResComm	12.4	▼ -1.08	▼ -4.84

	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.0	▼ -0.12	▲ 0.46

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	8.7	▼ -0.19	▲ 0.75

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.4	▼ -0.10	▲ 0.11

Short-term Weather Model Outlooks (00z)



Source: WSI, Bloomberg

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Lower 48 Component Models

Daily Balances

	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct	DoD	vs. 7D
Lower 48 Dry Production	89.0	89.2	89.0	89.0	88.7	88.9	88.5	▼ -0.5	▼ -0.5
Canadian Imports	3.3	3.3	3.2	3.6	3.4	4.1	4.0	▼ -0.1	▲ 0.5
L48 Power	27.8	25.1	26.2	29.8	29.5	28.6	31.0	▲ 2.4	▲ 3.1
L48 Residential & Commercial	19.8	18.9	18.6	19.0	16.3	13.5	12.4	▼ -1.1	▼ -5.3
L48 Industrial	23.3	23.2	23.2	23.1	22.7	22.2	21.7	▼ -0.5	▼ -1.3
L48 Lease and Plant Fuel	4.9	4.9	4.9	4.9	4.9	4.9	4.9	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	2.3	2.2	2.2	2.4	2.2	2.1	2.1	▲ 0.1	▼ -0.1
L48 Regional Gas Consumption	78.2	74.3	75.0	79.2	75.7	71.3	72.1	▲ 0.8	▼ -3.5
Net LNG Delivered	7.95	7.86	7.50	7.29	8.33	8.88	8.69	▼ -0.2	▲ 0.7
Total Mexican Exports	6.4	6.3	5.9	6.3	6.4	6.5	6.4	▼ -0.1	▲ 0.1
Implied Daily Storage Activity	-0.1	4.1	3.8	-0.2	1.8	6.4	5.3		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	11-Sep	18-Sep	25-Sep	2-Oct	9-Oct	16-Oct	WoW	vs. 4W
Lower 48 Dry Production	89.0	87.8	86.9	87.2	87.2	85.8	▼ -1.4	▼ -1.5
Canadian Imports	3.9	3.8	3.6	3.9	4.5	4.0	▼ -0.5	▲ 0.1
L48 Power	35.3	33.5	30.8	30.7	30.8	30.1	▼ -0.7	▼ -1.4
L48 Residential & Commercial	8.4	8.0	9.9	9.5	13.6	11.5	▼ -2.0	▲ 1.3
L48 Industrial	19.7	21.3	21.1	22.2	21.7	22.2	▲ 0.5	▲ 0.6
L48 Lease and Plant Fuel	4.9	4.8	4.8	4.8	4.8	4.7	▼ -0.1	▼ -0.1
L48 Pipeline Distribution	2.2	2.1	2.0	2.0	2.2	2.0	▼ -0.1	▼ 0.0
L48 Regional Gas Consumption	70.5	69.7	68.6	69.1	72.9	70.5	▼ -2.5	▲ 0.4
Net LNG Exports	5.2	7.3	5.8	6.8	7.5	6.9	▼ -0.6	▲ 0.0
Total Mexican Exports	6.4	6.2	6.4	6.3	6.2	6.2	▲ 0.0	▼ -0.1
Implied Daily Storage Activity	10.8	8.3	9.6	8.9	5.1	6.2	1.1	
EIA Reported Daily Storage Activity	12.7	9.4	10.9	10.7	6.6			
Daily Model Error	-1.9	-1.1	-1.2	-1.8	-1.5			

Monthly Balances

	2Yr Ago Oct-18	LY Oct-19	Jun-20	Jul-20	Aug-20	Sep-20	MTD Oct-20	MoM	vs. LY
Lower 48 Dry Production	86.7	95.0	86.6	87.8	87.7	87.6	87.3	▼ -0.3	▼ -7.7
Canadian Imports	4.7	4.6	4.0	4.4	4.9	3.8	4.0	▲ 0.2	▼ -0.6
L48 Power	28.8	30.8	35.0	43.8	40.7	33.2	29.7	▼ -3.5	▼ -1.1
L48 Residential & Commercial	16.1	15.2	8.8	8.0	7.7	8.7	13.9	▲ 5.3	▼ -1.3
L48 Industrial	22.6	24.0	19.2	19.3	20.6	21.0	22.2	▲ 1.2	▼ -1.8
L48 Lease and Plant Fuel	4.9	5.2	4.8	4.9	4.8	4.8	4.8	▼ 0.0	▼ -0.4
L48 Pipeline Distribution	2.1	2.3	2.2	2.4	2.3	2.1	2.1	▲ 0.1	▼ -0.1
L48 Regional Gas Consumption	74.5	77.4	70.1	78.4	76.1	69.8	72.8	▲ 3.0	▼ -4.6
Net LNG Exports	3.3	6.7	4.0	3.3	4.0	5.9	7.5	▲ 1.5	▲ 0.8
Total Mexican Exports	5.0	5.5	5.7	6.1	6.3	6.4	6.2	▼ -0.1	▲ 0.8
Implied Daily Storage Activity	8.6	10.0	10.9	4.4	6.2	9.4	4.8		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

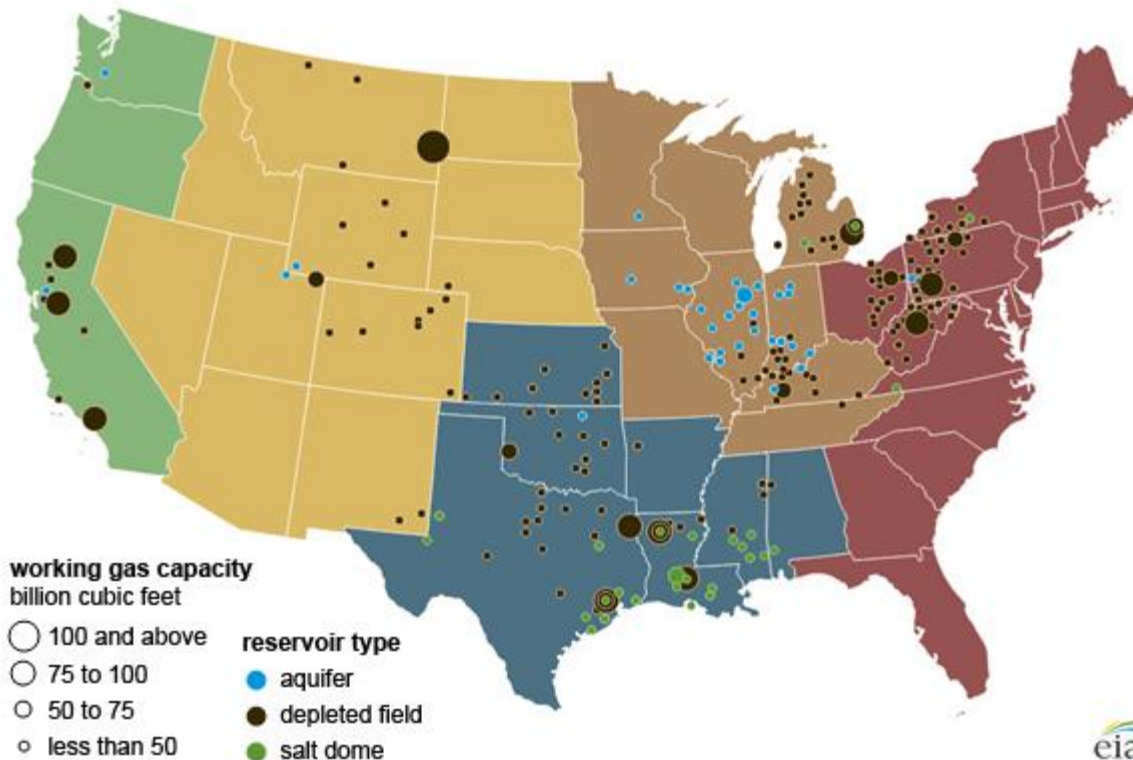
Regional S/D Models Storage Projection

Week Ending 16-Oct

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	6.0	1.7	7.7	54
East	0.4	1.6	2.0	14
Midwest	3.2	1.2	4.3	30
Mountain	3.6	-3.2	0.4	3
South Central	-1.6	2.2	0.6	4
Pacific	0.4	-0.1	0.3	2

*Adjustment Factor is calculated based on historical regional deltas

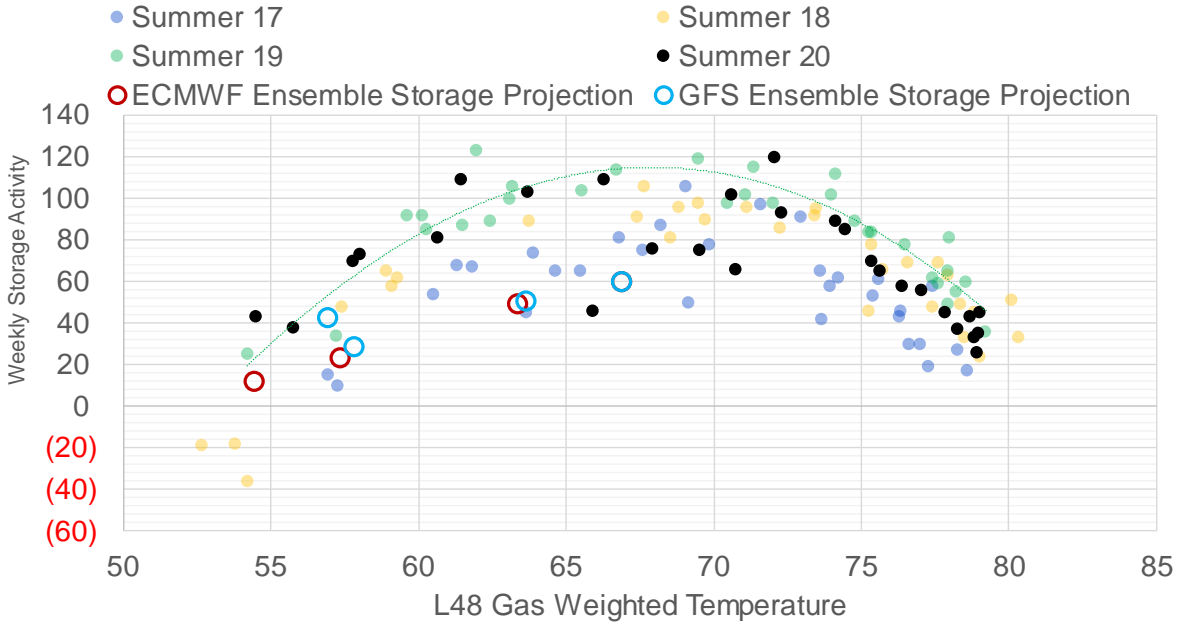
U.S. underground natural gas storage facilities by type (July 2015)



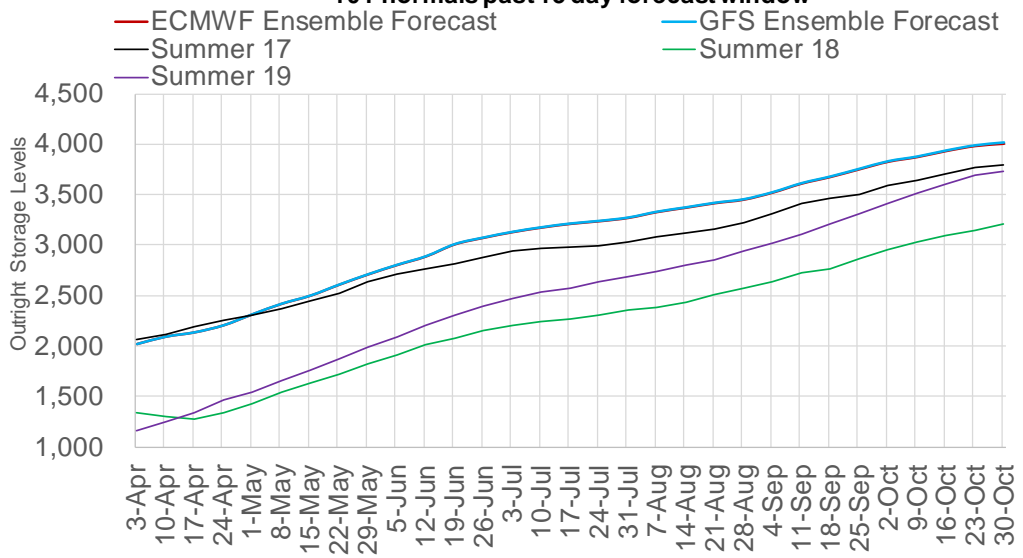
Weather Model Storage Projection

Next report and beyond	
Week Ending	Week Storage Projection
23-Oct	50
30-Oct	26
06-Nov	27

Weather Storage Model - Next 4 Week Forecast

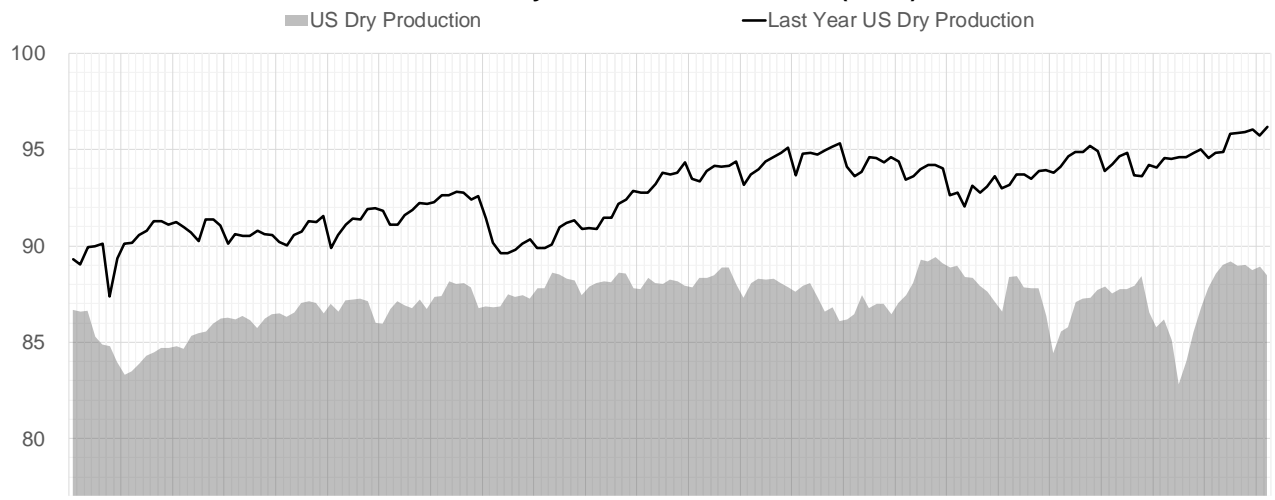


Weather Based End of Winter Projection (Bcf) 10Y normals past 15 day forecast window

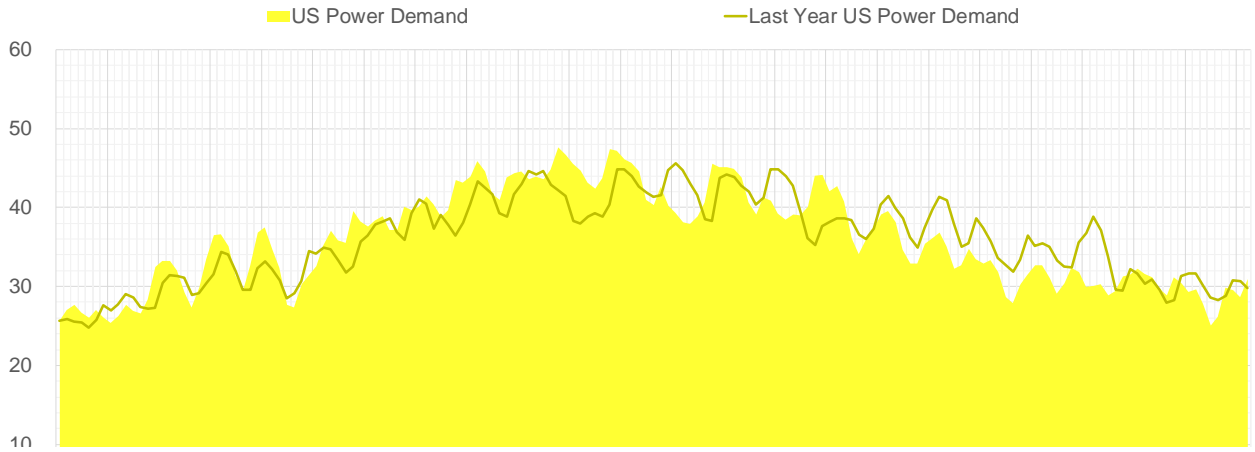


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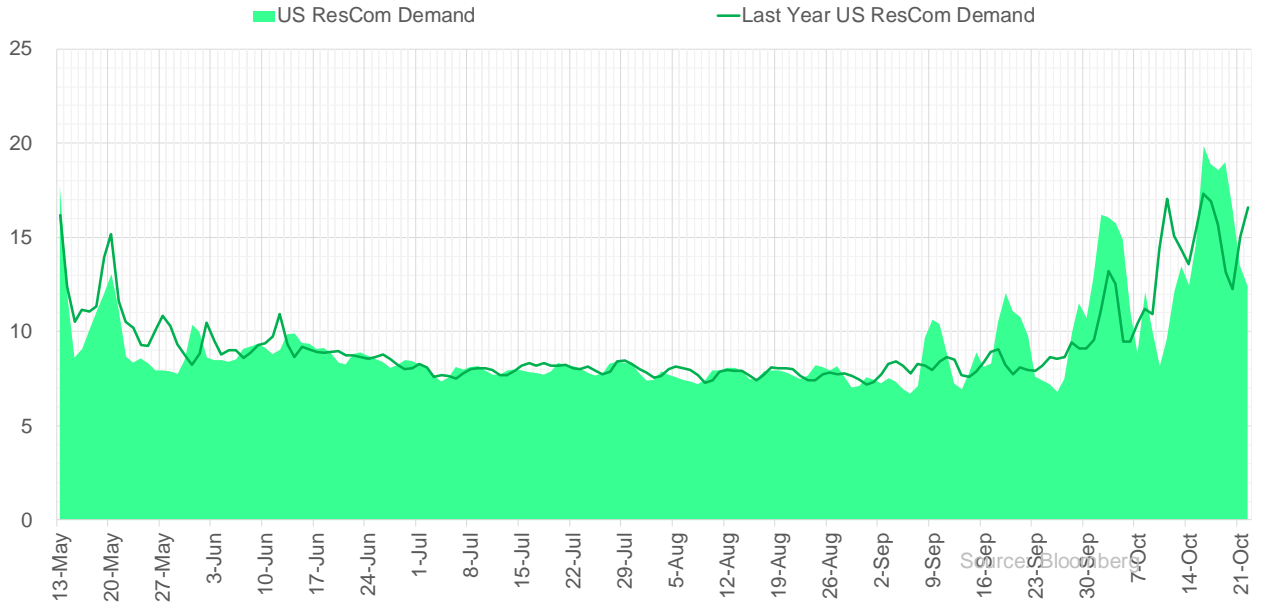
Supply – Demand Trends US Dry Natural Gas Production (Bcf/d)



US Daily Power Burns (Bcf/d)

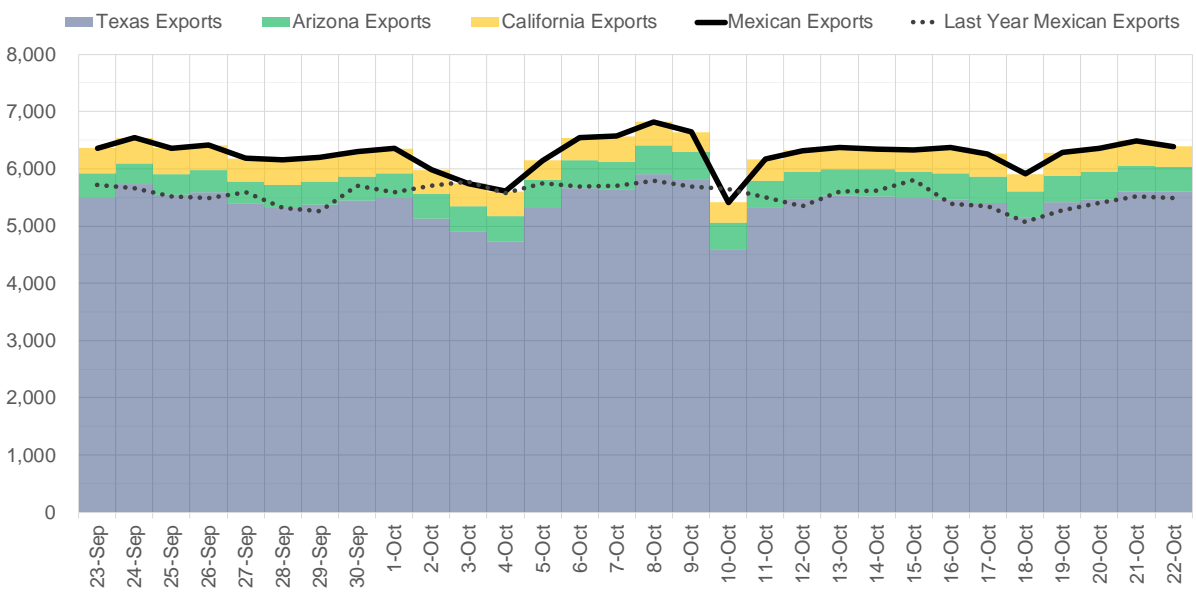


US Daily ResCom Consumption (Bcf/d)

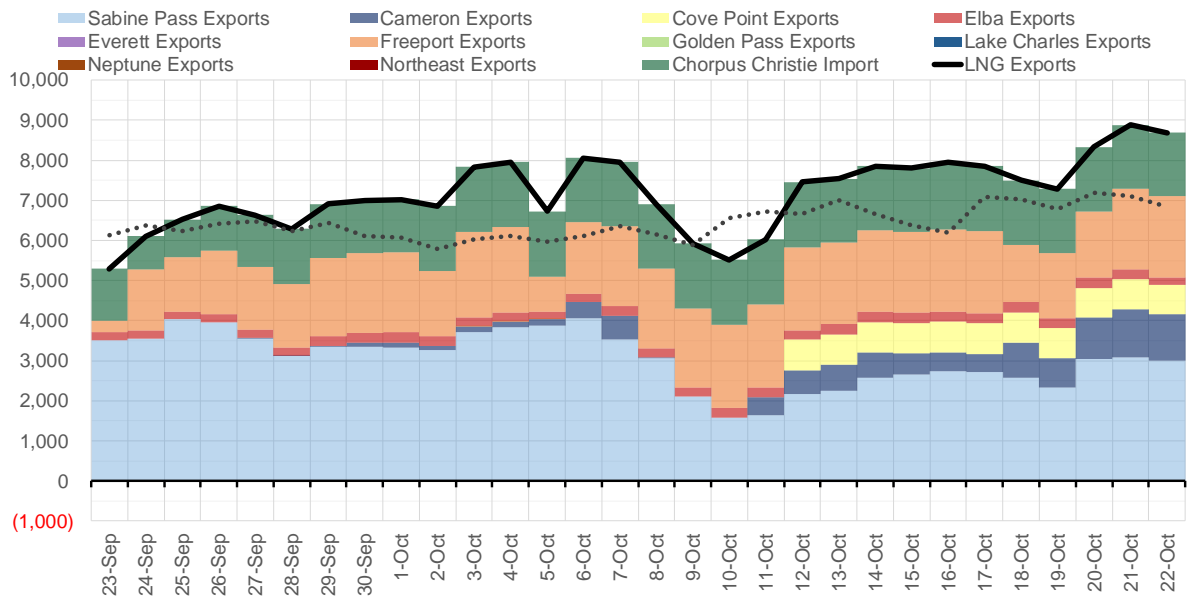


Source: Bloomberg

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	3.50	10122	11	2020	P	2.00	56089
10	2021	C	4.00	7400	11	2020	C	3.50	40075
11	2020	C	3.25	7202	3	2021	P	2.00	36314
12	2020	P	3.00	6148	11	2020	C	3.25	35881
12	2020	C	4.00	5801	12	2020	P	2.00	32212
10	2021	C	3.25	5400	3	2021	C	5.00	31674
11	2020	P	2.75	5039	3	2021	C	6.00	30217
11	2020	C	3.00	4213	1	2021	C	4.50	29555
11	2020	C	3.40	4093	3	2021	C	3.25	28033
12	2020	P	2.75	3615	12	2020	P	2.50	27671
11	2020	P	2.70	3588	4	2021	C	5.00	26870
11	2020	P	2.80	3566	3	2021	C	4.00	26395
11	2020	P	2.60	3408	1	2021	C	3.50	25798
11	2020	P	3.00	3211	3	2021	C	7.00	25380
3	2022	C	4.00	2800	12	2020	C	4.00	24630
11	2020	P	2.85	2614	11	2020	C	4.00	24108
2	2022	C	4.00	2557	11	2020	P	2.25	23578
1	2022	C	4.00	2553	11	2020	C	5.00	22403
12	2020	C	4.50	2413	11	2020	C	3.00	21982
11	2020	C	3.15	2393	1	2021	C	6.00	21301
1	2021	C	4.00	2370	10	2021	C	4.00	21075
11	2020	C	3.75	2302	3	2021	C	3.00	21049
11	2020	C	3.10	2286	10	2021	C	3.25	20390
11	2020	P	2.40	2269	4	2021	C	4.00	20131
2	2021	C	4.00	2004	3	2021	C	3.50	20046
10	2021	C	5.00	2000	8	2021	C	4.00	20024
11	2020	P	2.90	1856	2	2021	C	5.00	19966
11	2020	P	2.65	1828	11	2020	P	1.75	19541
11	2021	C	4.00	1700	11	2020	C	2.75	19330
12	2021	C	4.00	1700	12	2020	C	3.75	18712
11	2021	C	5.00	1600	11	2020	P	2.50	18571
12	2021	C	5.00	1600	12	2020	C	4.50	18488
1	2022	C	5.00	1600	2	2021	P	2.25	18287
2	2022	C	5.00	1600	1	2021	C	5.00	18149
3	2022	C	5.00	1600	1	2021	P	2.50	18110
4	2021	C	3.50	1501	12	2020	C	3.50	17883
2	2021	C	4.50	1500	1	2021	P	2.25	17635
12	2020	C	3.50	1492	2	2021	C	3.50	17304
12	2020	P	2.50	1475	1	2021	C	3.75	17194
4	2021	C	4.25	1200	1	2021	C	3.00	17187
12	2020	C	4.25	1179	8	2021	P	2.25	16842
11	2020	C	3.30	1133	5	2021	C	4.00	16830
4	2021	P	2.50	1100	2	2021	P	2.50	16654
5	2021	P	2.50	1100	11	2020	P	2.65	16304
6	2021	P	2.50	1100	3	2021	P	2.50	15721
7	2021	P	2.50	1100	10	2021	C	5.00	15065
8	2021	P	2.50	1100	11	2020	P	2.80	14868
9	2021	P	2.50	1100	2	2021	C	4.00	14637
10	2021	P	2.50	1100	1	2021	C	7.00	14529
					12	2020	P	1.5	14450

Source: CME, ICE

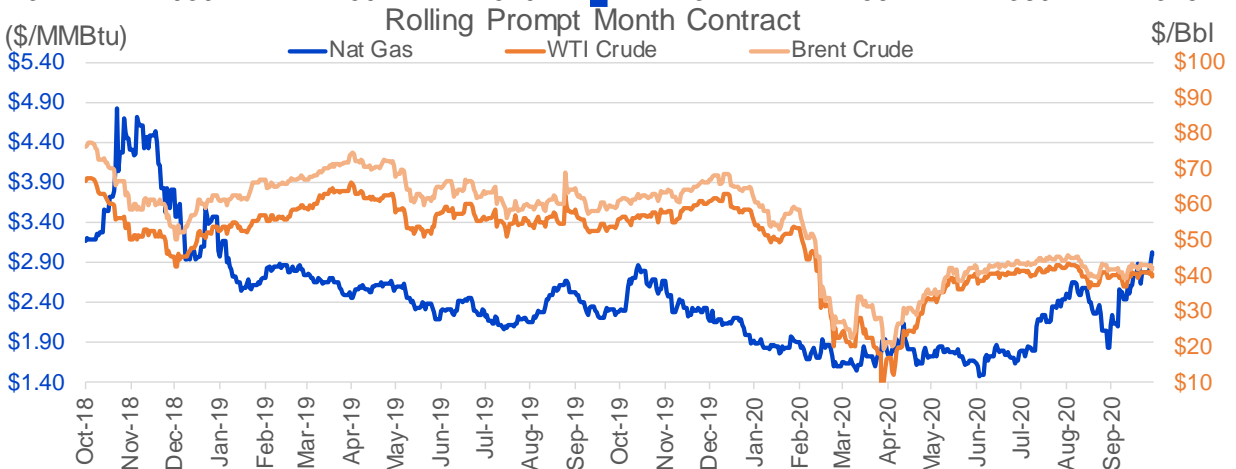
Nat Gas Futures Open Interest

CME and ICE Combined

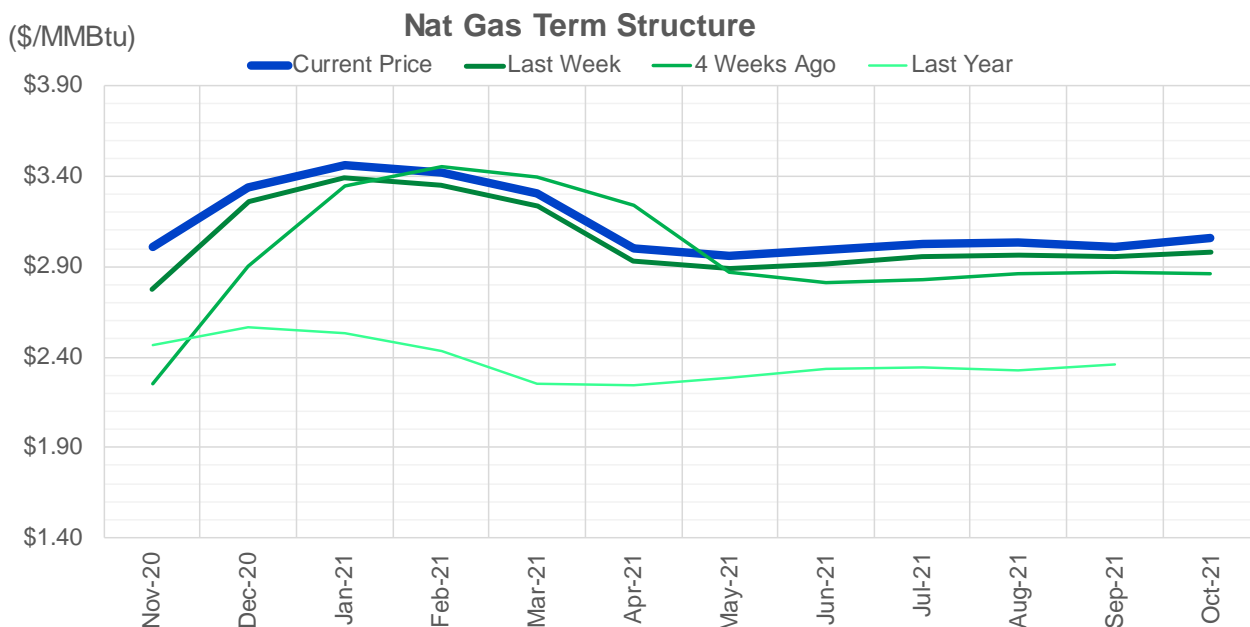
CME Henry Hub Futures (10,000 MMBtu)

ICE Henry Hub Futures Contract Equivalent (10,000 MM

	Current	Prior	Daily Change	FOR JUNE 26	Current	Prior	Daily Change
NOV 20	44303	62459	-18156	NOV 20	66019	67192	-1173.25
DEC 20	173859	177305	-3446	DEC 20	77323	77186	136.5
JAN 21	203050	203247	-197	JAN 21	89945	88325	1619.5
FEB 21	82868	82396	472	FEB 21	64670	64355	314.5
MAR 21	138392	137382	1010	MAR 21	83634	82682	952.5
APR 21	80158	81059	-901	APR 21	67312	67095	217.25
MAY 21	48286	47909	377	MAY 21	62719	61306	1412.75
JUN 21	33725	33328	397	JUN 21	56598	56102	496.25
JUL 21	27219	27639	-420	JUL 21	58551	58270	281.5
AUG 21	27004	25769	1235	AUG 21	61105	60304	800.25
SEP 21	39281	39122	159	SEP 21	56760	56372	388.5
OCT 21	94798	93486	1312	OCT 21	73057	72856	201
NOV 21	34284	33797	487	NOV 21	51240	50260	980.75
DEC 21	27990	28074	-84	DEC 21	47109	46775	333.25
JAN 22	30853	30537	316	JAN 22	44592	43454	1137.75
FEB 22	18937	18098	839	FEB 22	36254	35590	664
MAR 22	21880	20907	973	MAR 22	39301	38677	623.5
APR 22	21607	21179	428	APR 22	37493	37305	188
MAY 22	9640	9589	51	MAY 22	28842	28647	194.75
JUN 22	4958	4928	30	JUN 22	27552	27378	173.5
JUL 22	4215	4201	14	JUL 22	29069	28947	121.5
AUG 22	3044	2990	54	AUG 22	27641	27512	129
SEP 22	3149	3144	5	SEP 22	27269	27064	205.5
OCT 22	4316	4321	-5	OCT 22	30828	29412	1416.5
NOV 22	3569	3573	-4	NOV 22	26822	25247	1574.75
DEC 22	3782	3621	161	DEC 22	29329	29365	-36.75
JAN 23	3411	3001	410	JAN 23	14420	14384	35.75
FEB 23	919	909	10	FEB 23	13479	13404	75.25
MAR 23	1270	830	440	MAR 23	13593	13548	44.75
APR 23	1939	2459	-520	APR 23	12756	12380	376



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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	\$3.010	\$3.340	\$3.463	\$3.420	\$3.304	\$3.001	\$2.964	\$2.990	\$3.027	\$3.034	\$3.009	\$3.057
Last Week	\$2.775	\$3.261	\$3.396	\$3.355	\$3.235	\$2.934	\$2.890	\$2.918	\$2.957	\$2.966	\$2.952	\$2.982
vs. Last Week	\$0.235	\$0.079	\$0.067	\$0.065	\$0.069	\$0.067	\$0.074	\$0.072	\$0.070	\$0.068	\$0.057	\$0.075
4 Weeks Ago	\$2.248	\$2.899	\$3.343	\$3.451	\$3.393	\$3.239	\$2.868	\$2.810	\$2.832	\$2.863	\$2.872	\$2.860
vs. 4 Weeks Ago	\$0.762	\$0.441	\$0.120	-\$0.031	-\$0.089	-\$0.238	\$0.096	\$0.180	\$0.195	\$0.171	\$0.137	\$0.197
Last Year	\$2.316	\$2.465	\$2.567	\$2.533	\$2.433	\$2.253	\$2.241	\$2.283	\$2.331	\$2.341	\$2.329	\$2.356
vs. Last Year	\$0.694	\$0.875	\$0.896	\$0.887	\$0.871	\$0.748	\$0.723	\$0.707	\$0.696	\$0.693	\$0.680	\$0.701

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.70	3.60	1.90
TETCO M3	\$/MMBtu	1.44	2.43	0.99
FGT Zone 3	\$/MMBtu	1.48	2.81	1.33
Zone 6 NY	\$/MMBtu	1.48	2.57	1.09
Chicago Citygate	\$/MMBtu	2.70	2.69	-0.01
Michcon	\$/MMBtu	2.54	2.62	0.08
Columbia TCO Pool	\$/MMBtu	1.03	2.38	1.35
Ventura	\$/MMBtu	2.70	2.69	-0.01
Rockies/Opal	\$/MMBtu	2.70	2.52	-0.18
El Paso Permian Basin	\$/MMBtu	0.82	1.27	0.45
Socal Citygate	\$/MMBtu	4.36	3.26	-1.10
Malin	\$/MMBtu	2.75	3.23	0.48
Houston Ship Channel	\$/MMBtu	2.87	2.75	-0.12
Henry Hub Cash	\$/MMBtu	2.57	2.59	0.02
AECO Cash	C\$/GJ	2.53	2.17	-0.36
Station2 Cash	C\$/GJ	2.48	5.03	2.55
Dawn Cash	C\$/GJ	2.62	2.74	0.12

Source: CME, Bloomberg

	Units	Current Price	vs. 4 Weeks			
			vs. Last Week	Ago	vs. Last Year	
NatGas Jan/Apr	\$/MMBtu	-0.46	▼ 0.000	▲ 0.121	▼ -0.034	
NatGas Mar/Apr	\$/MMBtu	-0.303	▼ -0.002	▼ -0.674	▼ -0.574	
NatGas Oct/Nov	\$/MMBtu	0.91	▲ 0.235	▲ 0.258	▲ 0.838	
NatGas Oct/Jan	\$/MMBtu	1.36	▲ 0.067	▲ 0.159	▲ 1.008	
WTI Crude	\$/Bbl	40.40	▼ -0.560	▲ 0.090	▼ -15.830	
Brent Crude	\$/Bbl	42.13	▼ -1.030	▲ 0.190	▼ -19.540	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	114.85	▼ -4.020	▲ 3.180	▼ -83.780	
Propane, Mt. Bel	cents/Gallon	0.52	▼ -0.005	▲ 0.029	▲ 0.060	
Ethane, Mt. Bel	cents/Gallon	0.22	▲ 0.003	▲ 0.017	▲ 0.031	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.100	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -4.500	