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	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.72	▲ \$ 0.09	▼ \$ (0.02)

	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 39.93	▼ \$ (1.11)	▼ \$ (0.6)

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 42.22	▼ \$ (1.10)	▼ \$ (0.5)

00z GWDD Change

Cooler Change

Warmer Change

ECMWF Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	0.2	-2.7	4.4	2.0
24 Hr Chg	1.1	-0.2	5.6	6.6

GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	3.2	2.7	1.5	7.4
24 Hr Chg	1.2	-8.1	6.8	-0.2

	Current	Δ from YD	Δ from 7D Avg
US Dry Production	87.5	▲ 0.75	▲ 2.15

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	31.0	▲ 1.81	▲ 0.75

	Current	Δ from YD	Δ from 7D Avg
US ResComm	12.6	▲ 0.08	▲ 1.44

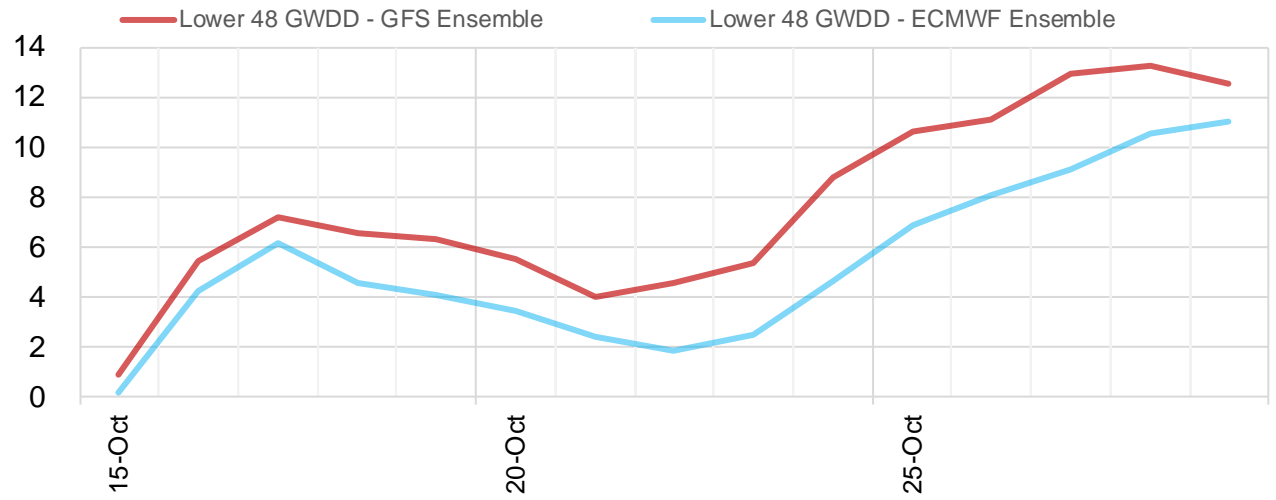
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	3.9	▲ 0.25	▼ -0.23

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	7.8	▼ -0.09	▲ 1.02

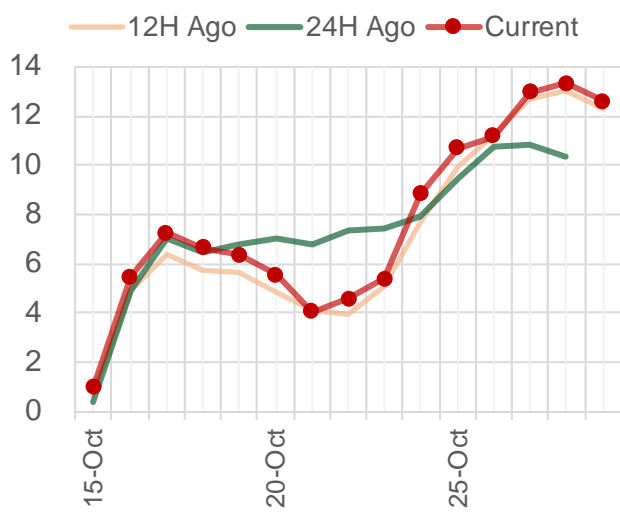
	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.4	▼ -0.05	▲ 0.01

Short-term Weather Model Outlooks (00z)

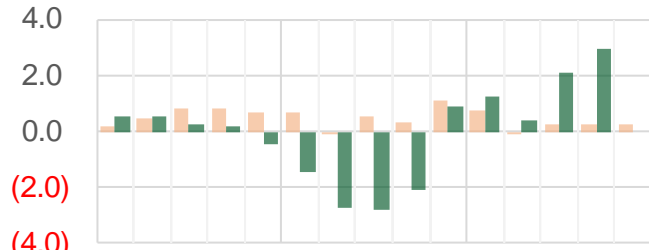
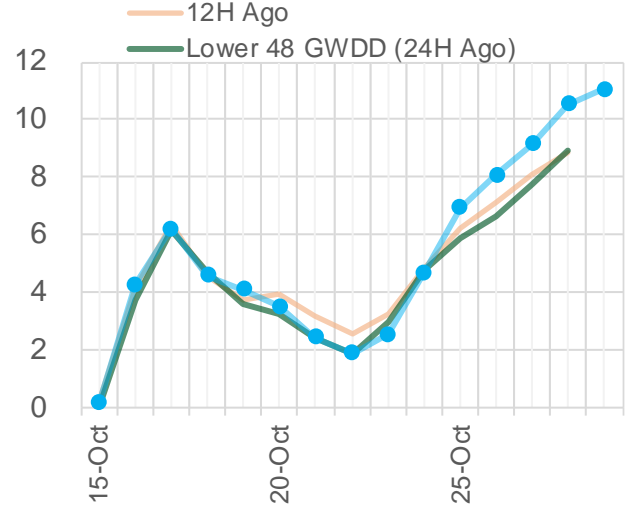
Lower 48 TDD Forecast



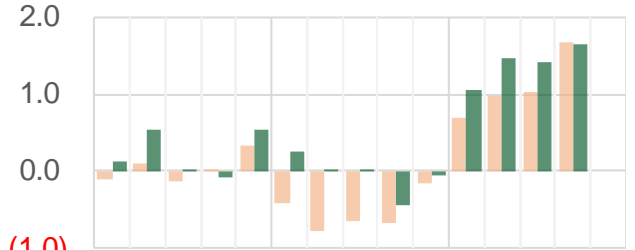
Lower 48 GWDD - GFS Ensemble



Lower 48 GWDD - ECMWF Ensemble



(2.0)
(4.0)



(1.0)

Source: WSI, Bloomberg

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Lower 48 Component Models

Daily Balances

	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct	DoD	vs. 7D
Lower 48 Dry Production	85.1	82.9	84.1	85.5	86.7	86.7	87.5	▲ 0.8	▲ 2.3
Canadian Imports	4.0	4.1	4.1	4.1	4.2	3.6	3.9	▲ 0.2	▼ -0.2
L48 Power	31.1	29.6	28.8	31.0	30.3	29.2	31.0	▲ 1.8	▲ 1.0
L48 Residential & Commercial	10.1	8.2	9.6	12.1	13.4	12.5	12.6	▲ 0.1	▲ 1.6
L48 Industrial	20.8	20.6	20.9	21.2	21.4	21.8	21.4	▼ -0.4	▲ 0.3
L48 Lease and Plant Fuel	4.7	4.6	4.6	4.7	4.8	4.8	4.8	▼ 0.0	▲ 0.1
L48 Pipeline Distribution	2.0	1.9	1.9	2.1	2.1	2.0	2.1	▲ 0.1	▲ 0.1
L48 Regional Gas Consumption	68.8	64.8	65.8	71.2	72.0	70.3	71.9	▲ 1.6	▲ 3.1
Net LNG Delivered	5.93	5.51	6.03	7.46	7.54	7.86	7.77	▼ -0.1	▲ 1.0
Total Mexican Exports	6.6	5.9	6.2	6.4	6.5	6.5	6.4	▼ 0.0	▲ 0.1
Implied Daily Storage Activity	7.8	10.7	10.1	4.6	4.8	5.7	5.2		
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	87.0	89.0	87.8	86.9	87.2	87.2	▼ 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	21.1	22.2	21.1	▼ -1.1	▲ 0.0
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	69.7	68.6	69.1	72.3	▲ 3.2	▲ 2.9
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	▼ -0.1
Implied Daily Storage Activity	9.5	10.8	8.3	9.6	8.9	5.8	-3.2	
EIA Reported Daily Storage Activity	10.0	12.7	9.4	10.9	10.7			
Daily Model Error	-0.5	-1.9	-1.1	-1.2	-1.8			

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	86.7	95.0	86.6	87.8	87.7	87.6	86.4	▼ -1.2	▼ -8.5
Canadian Imports	4.7	4.6	4.0	4.4	4.8	3.8	4.2	▲ 0.4	▼ -0.4
L48 Power	28.8	30.7	35.0	43.8	40.6	33.3	30.4	▼ -2.9	▼ -0.4
L48 Residential & Commercial	16.1	15.2	8.8	8.0	7.7	8.7	12.4	▲ 3.8	▼ -2.8
L48 Industrial	22.6	24.0	19.2	19.2	20.6	20.9	21.2	▲ 0.2	▼ -2.8
L48 Lease and Plant Fuel	4.9	5.2	4.8	4.9	4.8	4.8	4.8	▼ -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	70.9	▲ 1.1	▼ -6.6
Net LNG Exports	3.3	6.7	4.0	3.3	4.0	5.9	7.2	▲ 1.2	▲ 0.5
Total Mexican Exports	5.0	5.5	5.7	6.1	6.3	6.4	6.3	▼ -0.1	▲ 0.8
Implied Daily Storage Activity	8.6	10.0	10.9	4.4	6.1	9.4	6.4		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

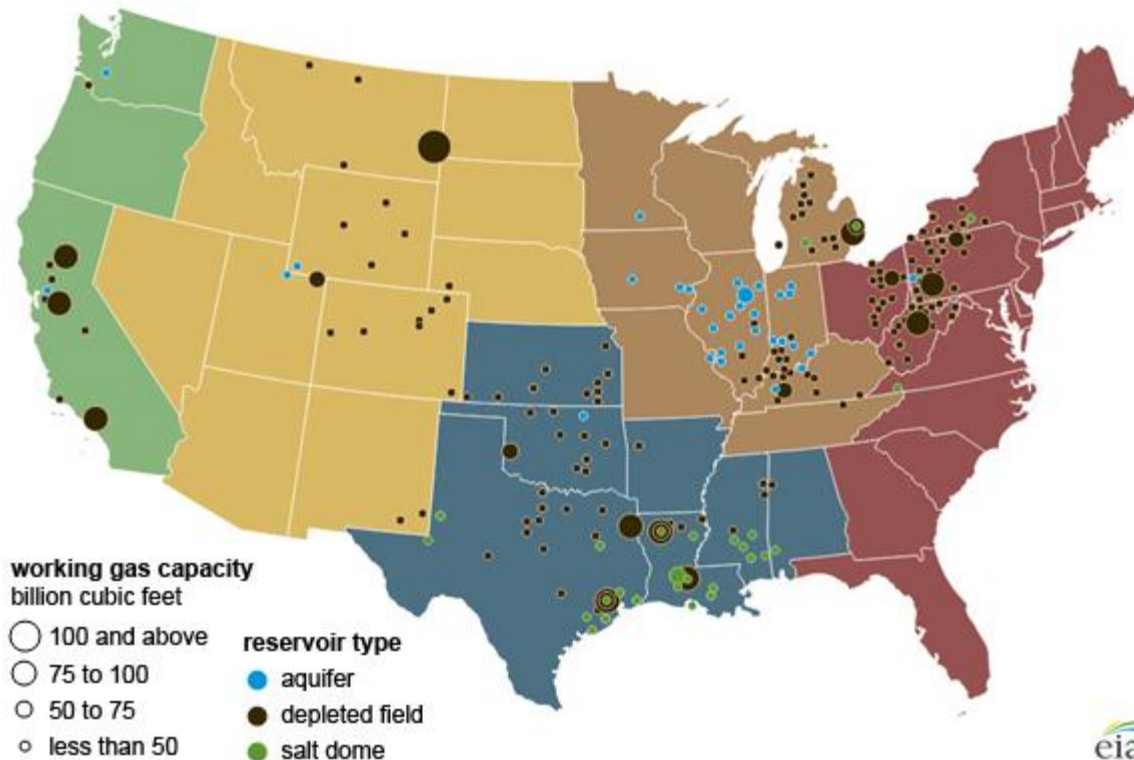
Regional S/D Models Storage Projection

Week Ending 9-Oct

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	5.5	1.8	7.3	51
East	0.6	1.6	2.2	16
Midwest	1.1	0.5	1.6	12
Mountain	4.4	-2.7	1.6	11
South Central	-1.0	2.6	1.6	11
Pacific	0.4	-0.2	0.2	1

*Adjustment Factor is calculated based on historical regional deltas

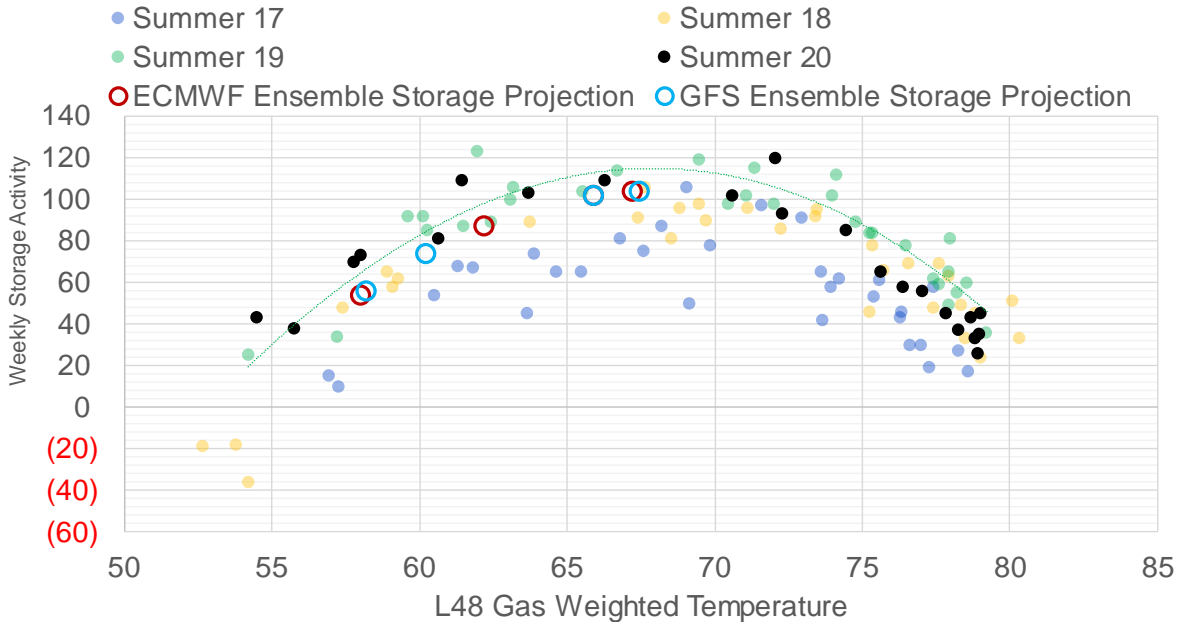
U.S. underground natural gas storage facilities by type (July 2015)



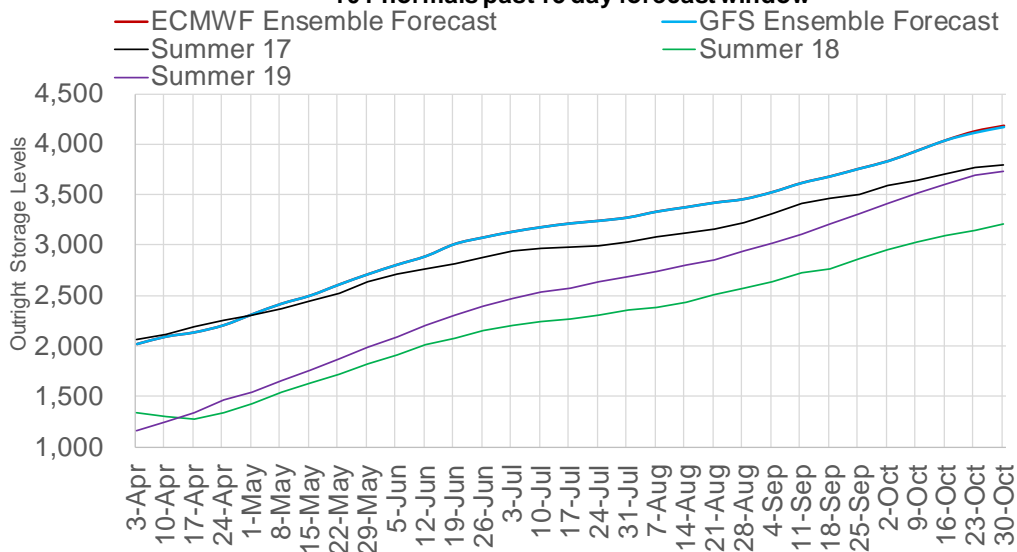
Weather Model Storage Projection

Next report and beyond	
Week Ending	Week Storage Projection
16-Oct	104
23-Oct	81
30-Oct	55

Weather Storage Model - Next 4 Week Forecast



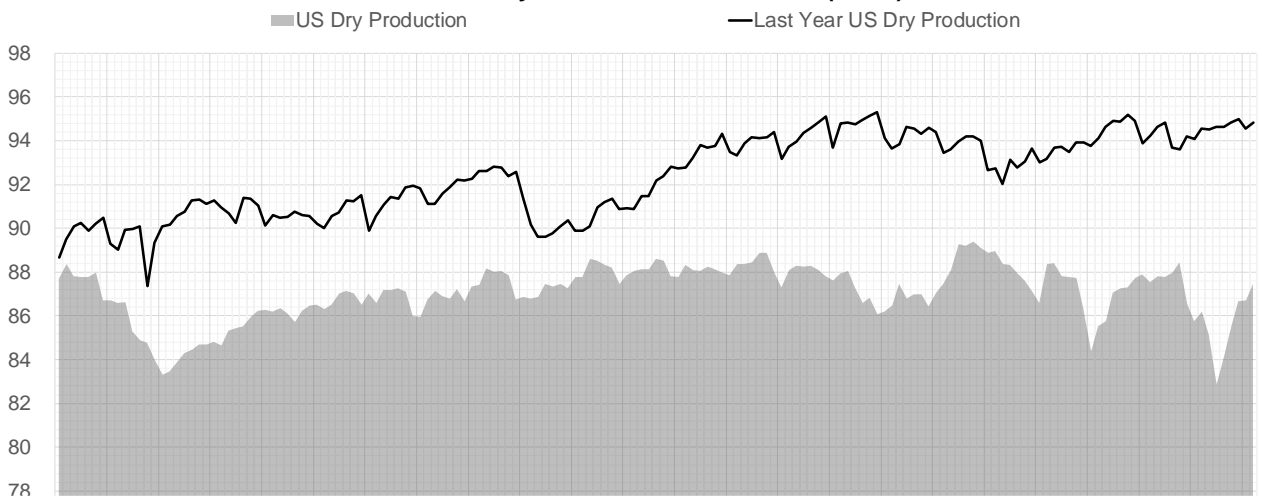
Weather Based End of Winter Projection (Bcf) 10Y normals past 15 day forecast window



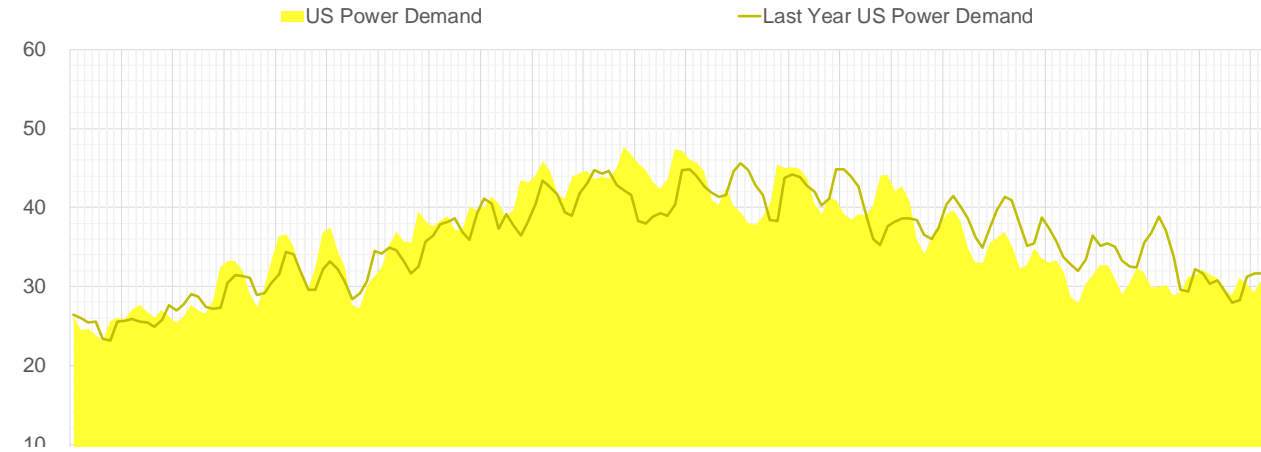
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Supply – Demand Trends

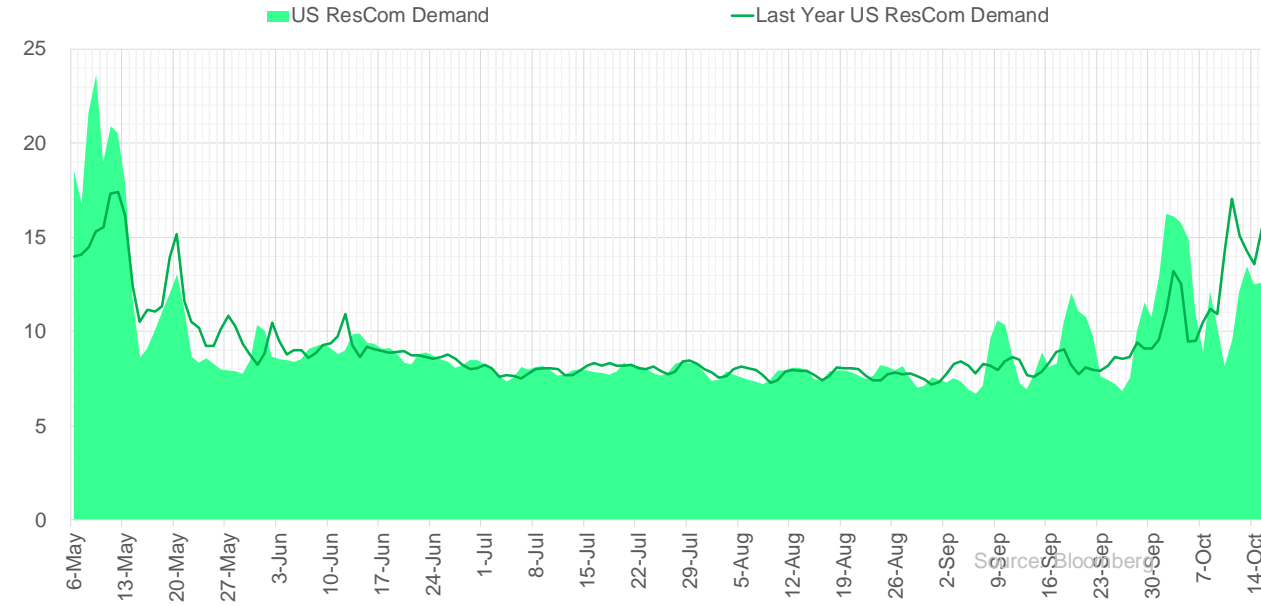
US Dry Natural Gas Production (Bcf/d)



US Daily Power Burns (Bcf/d)

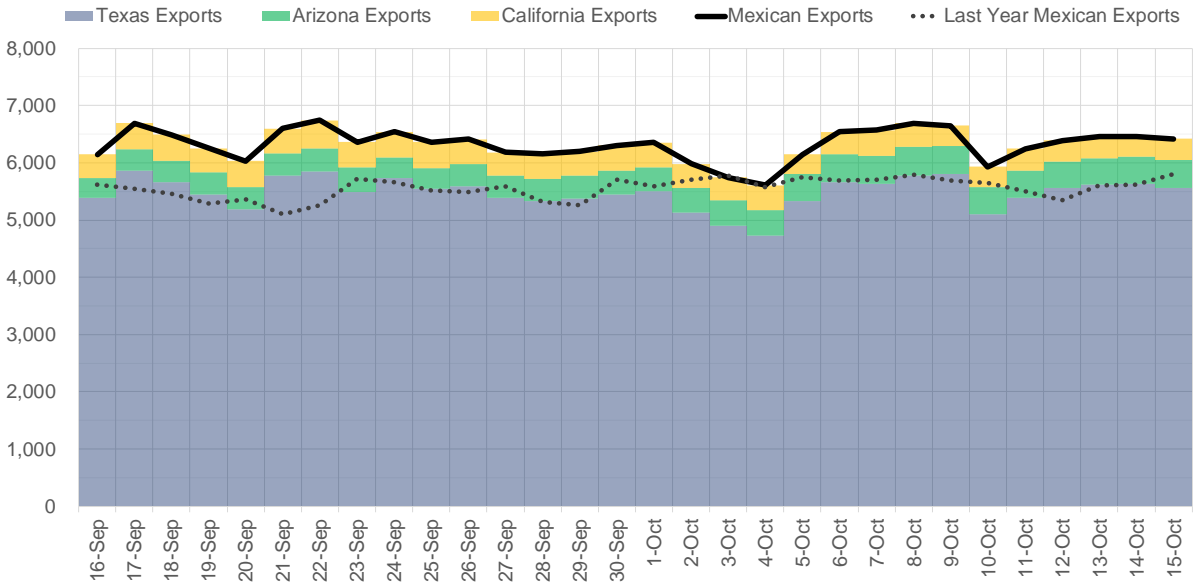


US Daily ResCom Consumption (Bcf/d)

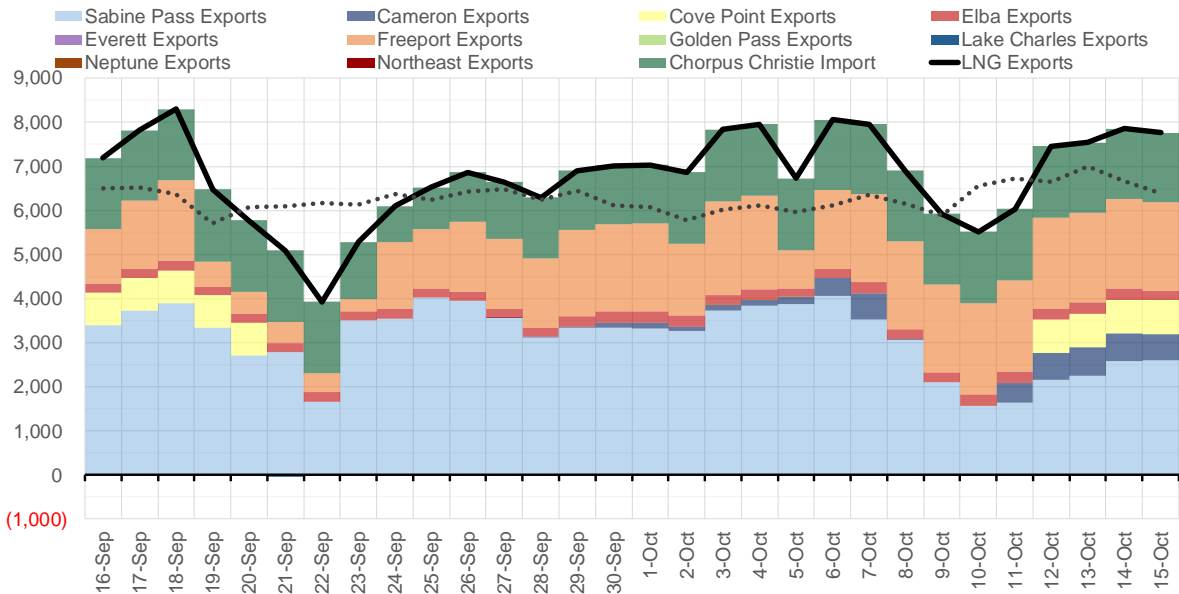


Source: Bloomberg

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
2	2021	P	2.25	15425	11	2020	P	2.00	54772
11	2020	C	3.25	10406	3	2021	P	2.00	35272
11	2020	C	3.00	8904	11	2020	C	3.25	33970
11	2020	C	2.75	6540	11	2020	C	3.50	32771
11	2020	P	2.25	5865	12	2020	P	2.00	31716
5	2021	C	4.00	5200	3	2021	C	6.00	30626
11	2020	P	2.50	5026	3	2021	C	5.00	29497
11	2020	P	2.00	5018	1	2021	C	4.50	27819
11	2020	P	1.75	4854	3	2021	C	3.25	27226
11	2020	C	3.50	4744	4	2021	C	5.00	26770
1	2021	C	6.00	4306	3	2021	C	4.00	26182
1	2021	C	7.00	4300	1	2021	C	3.50	26131
1	2021	P	2.50	4127	3	2021	C	7.00	25903
12	2020	C	4.50	3608	12	2020	P	2.50	25812
1	2021	P	2.25	3500	11	2020	C	4.00	24780
12	2020	C	5.00	3266	11	2020	C	3.00	23973
11	2020	P	2.40	3178	12	2020	C	4.00	23655
12	2020	C	3.50	2813	11	2020	P	2.25	22518
12	2020	C	3.75	2756	11	2020	C	5.00	21913
11	2020	P	2.60	2519	2	2021	C	5.00	21902
2	2021	C	3.50	2432	3	2021	C	3.00	20761
3	2021	C	4.75	2400	3	2021	C	3.50	19971
11	2020	C	2.85	2361	4	2021	C	4.00	19207
11	2020	C	2.80	2298	12	2020	C	3.75	18606
3	2021	C	5.00	2151	11	2020	C	2.75	18375
11	2020	P	2.20	2047	12	2020	C	4.50	18270
2	2021	C	4.00	2026	1	2021	C	5.00	18101
11	2020	P	2.35	1928	11	2020	P	1.75	18027
12	2020	P	2.50	1554	1	2021	P	2.50	18020
11	2020	C	2.90	1445	1	2021	P	2.25	17734
11	2020	P	2.30	1401	11	2020	P	2.50	17090
12	2020	C	4.00	1345	1	2021	C	6.00	16940
3	2021	P	2.50	1202	1	2021	C	3.75	16908
11	2020	C	3.15	1147	1	2021	C	3.00	16885
11	2020	P	2.10	1120	2	2021	C	3.50	16141
1	2022	C	3.50	1100	12	2020	C	3.50	15518
12	2020	P	3.00	1060	2	2021	P	2.50	14921
1	2021	P	3.25	1060	11	2020	P	2.65	14826
7	2021	C	3.50	1000	8	2021	C	4.00	14459
7	2021	C	4.25	1000	12	2020	P	1.50	14450
2	2021	C	3.75	916	11	2020	P	2.20	14331
11	2020	C	2.95	876	12	2020	C	5.00	14302
11	2020	C	3.30	861	4	2021	C	3.00	14210
11	2020	C	2.70	853	4	2021	P	2.00	14097
12	2020	C	3.25	851	3	2021	P	2.50	13762
2	2021	P	2.00	850	5	2021	C	3.00	13731
3	2021	C	6.00	850	11	2020	P	2.80	13559
3	2021	C	7.00	850	2	2021	C	4.00	13486
1	2021	C	5.00	844	1	2021	C	3.25	13187
					12	2020	C	3.25	13007.75

Source: CME, ICE

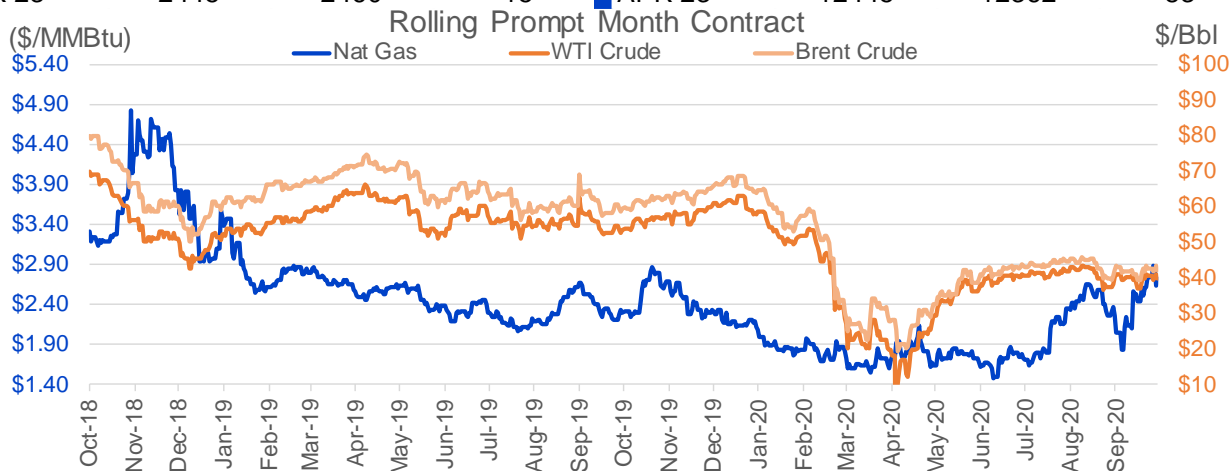
Nat Gas Futures Open Interest

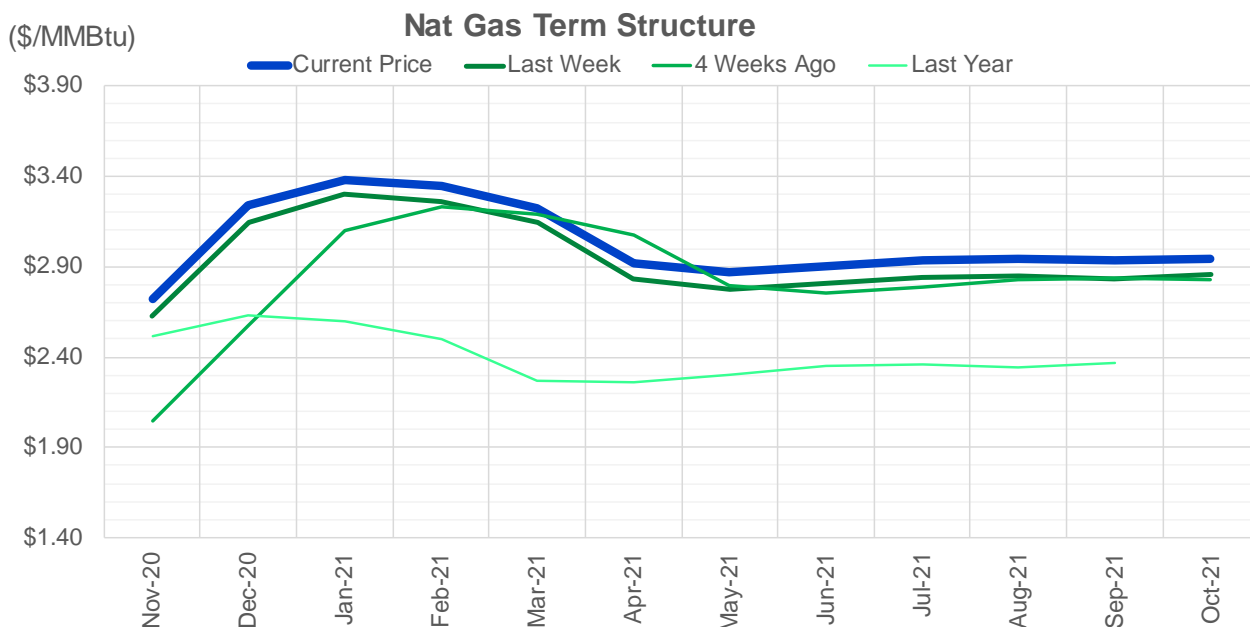
CME and ICE Combined

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	121190	130337	-9147	NOV 20	75350	74199	1151.5
DEC 20	164894	156844	8050	DEC 20	75473	76920	-1447.5
JAN 21	202955	200252	2703	JAN 21	90446	88646	1799.5
FEB 21	80967	78663	2304	FEB 21	64225	63709	516.25
MAR 21	137197	138877	-1680	MAR 21	84872	84328	543.5
APR 21	89683	86491	3192	APR 21	69840	68393	1447.5
MAY 21	44261	43228	1033	MAY 21	61116	61636	-520.5
JUN 21	33038	32676	362	JUN 21	55482	55298	184.75
JUL 21	25500	25328	172	JUL 21	57539	57484	54.75
AUG 21	25781	25797	-16	AUG 21	60465	60438	27.5
SEP 21	37561	37546	15	SEP 21	55624	55521	103
OCT 21	87572	87865	-293	OCT 21	72084	72165	-81
NOV 21	32581	31967	614	NOV 21	48729	48804	-74.5
DEC 21	27200	26740	460	DEC 21	46494	46433	61.25
JAN 22	28628	28206	422	JAN 22	41601	41448	152.75
FEB 22	16346	16080	266	FEB 22	34178	34187	-9.5
MAR 22	18910	18419	491	MAR 22	37314	37297	16.75
APR 22	22237	22079	158	APR 22	35391	35126	265
MAY 22	7831	7740	91	MAY 22	27612	27488	124
JUN 22	4717	4707	10	JUN 22	26439	26301	137.25
JUL 22	3732	3680	52	JUL 22	28106	28015	90.75
AUG 22	2657	2527	130	AUG 22	26241	26174	67.25
SEP 22	2370	2322	48	SEP 22	25639	25551	87.75
OCT 22	4170	3991	179	OCT 22	28358	28204	154
NOV 22	3136	2931	205	NOV 22	24352	24316	35.5
DEC 22	3155	2955	200	DEC 22	28114	28069	44.25
JAN 23	3012	3011	1	JAN 23	13972	13863	109
FEB 23	897	897	0	FEB 23	13164	13065	98.75
MAR 23	883	896	-13	MAR 23	13413	13314	99.25
APR 23	2445	2460	-15	APR 23	12445	12362	83





	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	\$2.723	\$3.242	\$3.380	\$3.343	\$3.222	\$2.919	\$2.873	\$2.901	\$2.938	\$2.947	\$2.934	\$2.946
Last Week	\$2.627	\$3.149	\$3.299	\$3.258	\$3.146	\$2.830	\$2.777	\$2.804	\$2.840	\$2.847	\$2.833	\$2.861
vs. Last Week	\$0.096	\$0.093	\$0.081	\$0.085	\$0.076	\$0.089	\$0.096	\$0.097	\$0.098	\$0.100	\$0.101	\$0.085
4 Weeks Ago	\$2.042	\$2.577	\$3.097	\$3.229	\$3.189	\$3.074	\$2.795	\$2.758	\$2.787	\$2.825	\$2.837	\$2.825
vs. 4 Weeks Ago	\$0.681	\$0.665	\$0.283	\$0.114	\$0.033	-\$0.155	\$0.078	\$0.143	\$0.151	\$0.122	\$0.097	\$0.121
Last Year	\$2.318	\$2.516	\$2.633	\$2.598	\$2.499	\$2.269	\$2.256	\$2.299	\$2.348	\$2.359	\$2.343	\$2.370
vs. Last Year	\$0.405	\$0.726	\$0.747	\$0.745	\$0.723	\$0.650	\$0.617	\$0.602	\$0.590	\$0.588	\$0.591	\$0.576

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.66	3.57	1.91
TETCO M3	\$/MMBtu	1.27	2.34	1.07
FGT Zone 3	\$/MMBtu	1.27	2.66	1.39
Zone 6 NY	\$/MMBtu	1.27	2.52	1.25
Chicago Citygate	\$/MMBtu	2.07	2.48	0.41
Michcon	\$/MMBtu	2.06	2.41	0.35
Columbia TCO Pool	\$/MMBtu	1.71	2.24	0.53
Ventura	\$/MMBtu	2.09	2.49	0.40
Rockies/Opal	\$/MMBtu	1.47	2.40	0.93
El Paso Permian Basin	\$/MMBtu	0.05	1.25	1.20
Socal Citygate	\$/MMBtu	4.08	3.01	-1.07
Malin	\$/MMBtu	2.19	3.00	0.81
Houston Ship Channel	\$/MMBtu	2.41	2.59	0.18
Henry Hub Cash	\$/MMBtu	2.02	2.44	0.42
AECO Cash	C\$/GJ	1.99	2.11	0.12
Station2 Cash	C\$/GJ	1.99	4.63	2.64
Dawn Cash	C\$/GJ	2.05	2.20	0.15

Source: CME, Bloomberg

	Units	Current Price	vs. 4 Weeks			
			vs. Last Week	Ago	vs. Last Year	
NatGas Jan/Apr	\$/MMBtu	-0.46	▲ 0.008	▼ -0.027	▼ -0.019	
NatGas Mar/Apr	\$/MMBtu	-0.303	▲ 0.013	▼ -0.582	▼ -0.583	
NatGas Oct/Nov	\$/MMBtu	0.62	▲ 0.096	▲ 0.087	▲ 0.553	
NatGas Oct/Jan	\$/MMBtu	1.28	▲ 0.081	▲ 0.092	▲ 0.919	
WTI Crude	\$/Bbl	39.93	▼ -1.260	▼ -1.040	▼ -14.000	
Brent Crude	\$/Bbl	42.22	▼ -1.120	▼ -1.080	▼ -17.690	
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	▲ 0.000	▲ 0.000	▲ 0.000	
Heating Oil	cents/Gallon	116.46	▼ -2.770	▲ 0.480	▼ -78.350	
Propane, Mt. Bel	cents/Gallon	0.52	▲ 0.002	▲ 0.026	▲ 0.059	
Ethane, Mt. Bel	cents/Gallon	0.21	▲ 0.013	▲ 0.010	▲ 0.021	
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.100	
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -4.500	