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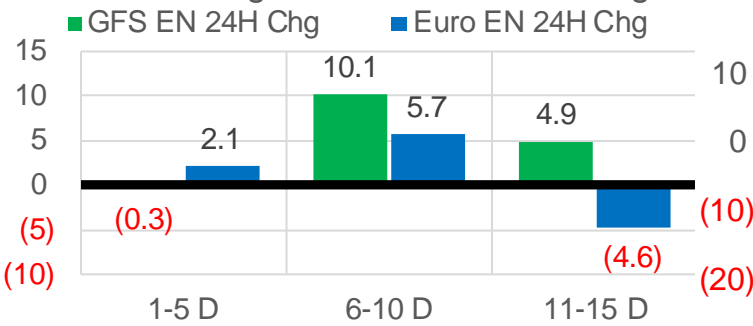
[Price Summary](#)

	Current	Δ from YD	Δ from 7D Avg
Nat Gas Prompt	\$ 2.57 ▲	\$ 0.02 ▲	\$ 0.07

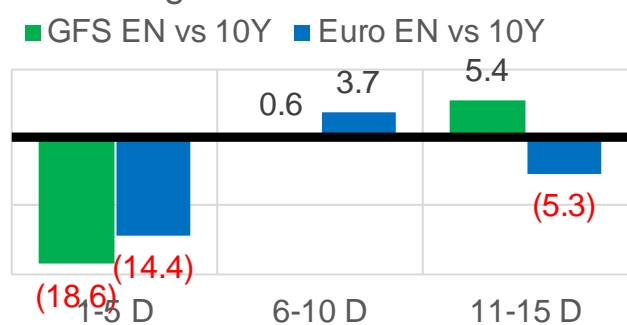
	Current	Δ from YD	Δ from 7D Avg
WTI Prompt	\$ 46.68 ▼	\$ (0.10) ▲	\$ 0.6

	Current	Δ from YD	Δ from 7D Avg
Brent Prompt	\$ 50.10 ▼	\$ (0.15) ▲	\$ 0.9

L48 Region - 00z TDD vs 24H Ago



L48 Region - 00z TDD vs 10Y N



	Current	Δ from YD	Δ from 7D Avg
US Dry Production	91.1 ▼	-0.11 ▲	0.22

	Current	Δ from YD	Δ from 7D Avg
US Power Burns	25.5 ▼	-0.72 ▼	-2.58

	Current	Δ from YD	Δ from 7D Avg
US ResComm	31.6 ▼	-1.86 ▼	-5.70

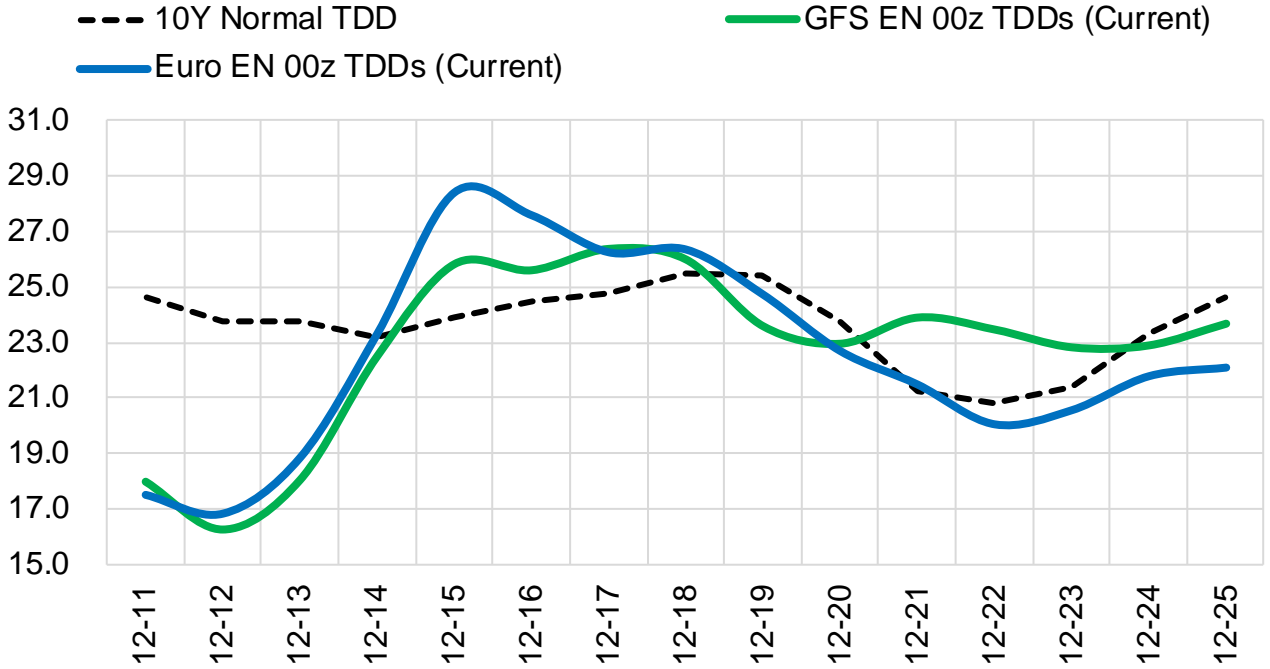
	Current	Δ from YD	Δ from 7D Avg
Canadian Imports	4.6 ▼	-0.88 ▼	-1.28

	Current	Δ from YD	Δ from 7D Avg
Net LNG Exports	11.2 ▼	-0.20 ▼	-0.10

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	6.4 ▼	-0.04 ▲	0.09

Short-term Weather Model Outlooks (00z)

L48 Region



Source: WSI , Bloomberg

Lower 48 Component Models

Daily Balances

	5-Dec	6-Dec	7-Dec	8-Dec	9-Dec	10-Dec	11-Dec	DoD	vs. 7D
Lower 48 Dry Production	90.7	90.7	90.8	91.1	90.9	91.2	91.1	▼ -0.1	▲ 0.2
Canadian Imports	5.9	6.2	6.5	6.0	5.7	5.5	4.6	▼ -0.9	▼ -1.3
L48 Power	26.5	26.4	30.3	30.7	29.0	26.3	25.5	▼ -0.7	▼ -2.7
L48 Residential & Commercial	38.2	39.6	40.4	39.3	35.0	33.4	31.6	▼ -1.9	▼ -6.1
L48 Industrial	24.3	24.2	24.3	23.8	23.5	23.2	22.9	▼ -0.3	▼ -1.0
L48 Lease and Plant Fuel	5.0	5.0	5.0	5.0	5.0	5.1	5.0	▼ 0.0	▲ 0.0
L48 Pipeline Distribution	3.0	3.0	3.2	3.2	2.9	2.7	2.6	▼ -0.1	▼ -0.4
L48 Regional Gas Consumption	97.0	98.3	103.3	102.1	95.5	90.7	87.7	▼ -3.0	▼ -10.2
Net LNG Delivered	11.48	11.15	10.99	11.22	11.37	11.36	11.17	▼ -0.2	▼ -0.1
Total Mexican Exports	6.1	6.0	6.2	6.5	6.4	6.4	6.4	▼ 0.0	▲ 0.1
Implied Daily Storage Activity	-18.0	-18.6	-23.2	-22.7	-16.7	-11.7	-9.5		
EIA Reported Daily Storage Activity									
Daily Model Error									

EIA Storage Week Balances

	6-Nov	13-Nov	20-Nov	27-Nov	4-Dec	11-Dec	WoW	vs. 4W
Lower 48 Dry Production	89.6	88.2	90.9	91.6	91.6	90.9	▼ -0.7	▲ 0.3
Canadian Imports	4.9	3.9	5.1	4.5	5.3	5.9	▲ 0.6	▲ 1.2
L48 Power	24.6	24.4	24.8	24.8	26.5	28.1	▲ 1.6	▲ 3.0
L48 Residential & Commercial	23.1	16.8	27.2	26.7	34.4	37.3	▲ 2.9	▲ 11.0
L48 Industrial	23.0	24.0	23.3	22.1	24.4	23.4	▼ -1.0	▼ 0.0
L48 Lease and Plant Fuel	4.9	4.9	5.0	5.1	5.1	5.0	▼ 0.0	▲ 0.0
L48 Pipeline Distribution	2.3	1.9	2.4	2.4	2.8	3.0	▲ 0.2	▲ 0.6
L48 Regional Gas Consumption	77.9	72.0	82.7	81.1	93.1	96.8	▲ 3.7	▲ 14.6
Net LNG Exports	10.2	10.4	10.2	9.7	10.4	11.3	▲ 0.9	▲ 1.1
Total Mexican Exports	6.0	6.3	6.1	6.3	6.4	6.3	▼ -0.1	▲ 0.0
Implied Daily Storage Activity	0.3	3.4	-2.9	-1.0	-13.1	-17.6	-4.5	
EIA Reported Daily Storage Activity	1.1	4.4	-2.6	-0.1	-13.0			
Daily Model Error	-0.8	-1.0	-0.4	-0.9	-0.1			

Monthly Balances

	2Yr Ago Dec-18	LY Dec-19	Aug-20	Sep-20	Oct-20	Nov-20	MTD Dec-20	MoM	vs. LY
Lower 48 Dry Production	87.5	95.1	88.6	87.8	87.5	90.4	91.0	▲ 0.6	▼ -4.1
Canadian Imports	4.8	4.5	4.9	3.8	4.3	4.6	5.8	▲ 1.3	▲ 1.3
L48 Power	24.4	28.9	41.0	34.1	29.4	24.7	28.1	▲ 3.4	▼ -0.8
L48 Residential & Commercial	39.3	39.1	7.7	8.8	16.2	24.2	37.2	▲ 13.0	▼ -1.8
L48 Industrial	22.4	24.4	20.3	19.2	22.3	23.2	24.2	▲ 1.0	▼ -0.3
L48 Lease and Plant Fuel	4.9	5.3	4.9	4.9	4.8	5.0	5.0	▲ 0.1	▼ -0.2
L48 Pipeline Distribution	2.8	3.1	2.4	2.2	2.2	2.3	3.0	▲ 0.7	▼ -0.1
L48 Regional Gas Consumption	93.9	100.7	76.3	69.1	74.9	79.3	97.5	▲ 18.2	▼ -3.2
Net LNG Exports	4.5	7.8	4.0	5.9	8.0	10.1	11.1	▲ 1.0	▲ 3.3
Total Mexican Exports	4.5	5.0	6.3	6.4	6.2	6.2	6.3	▲ 0.1	▲ 1.4
Implied Daily Storage Activity	-10.7	-13.9	6.8	10.2	2.7	-0.7	-18.1		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

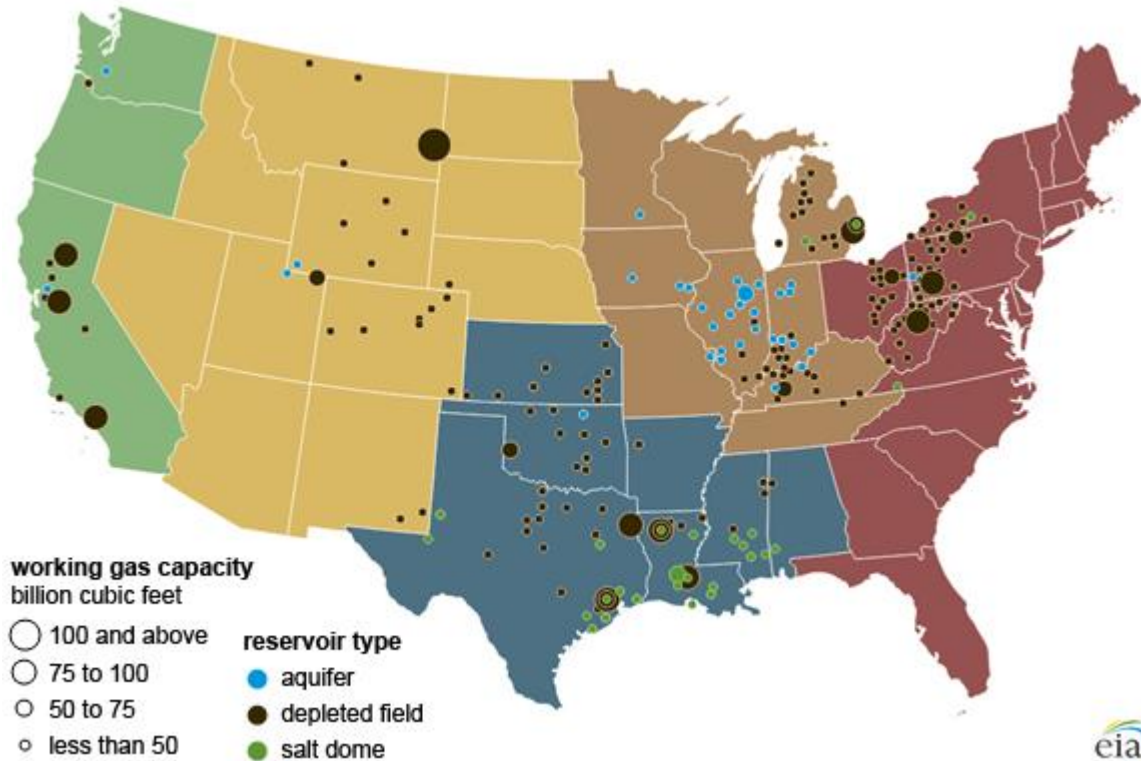
Regional S/D Models Storage Projection

Week Ending 11-Dec

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	-18.3	0.6	-17.0	-119
East	-6.5	1.8	-4.7	-33
Midwest	-6.1	0.4	-5.4	-38
Mountain	2.7	-3.7	-0.9	-6
South Central	-7.8	2.4	-5.1	-36
Pacific	-0.6	-0.3	-0.9	-6

*Adjustment Factor is calculated based on historical regional deltas

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

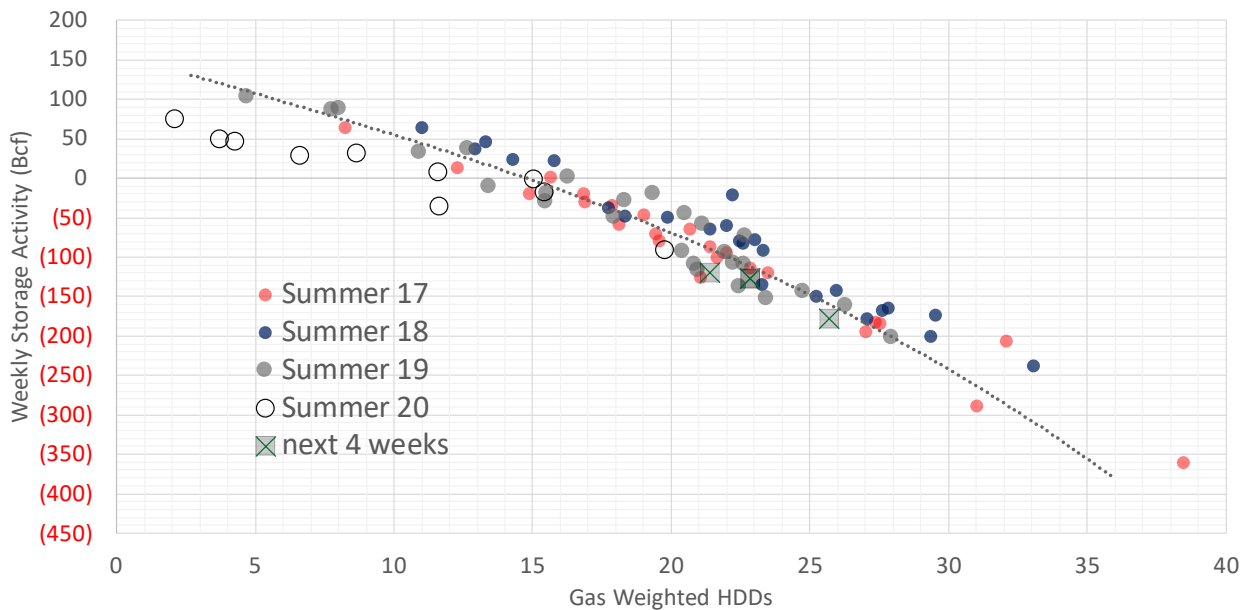


Weather Model Storage Projection

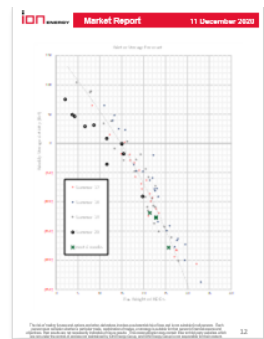
Next report
and beyond

Week Ending	Temp	Week Storage Projection
11-Dec	21.4	-119
18-Dec	22.8	-127
25-Dec	22.9	-127
01-Jan	25.7	-178

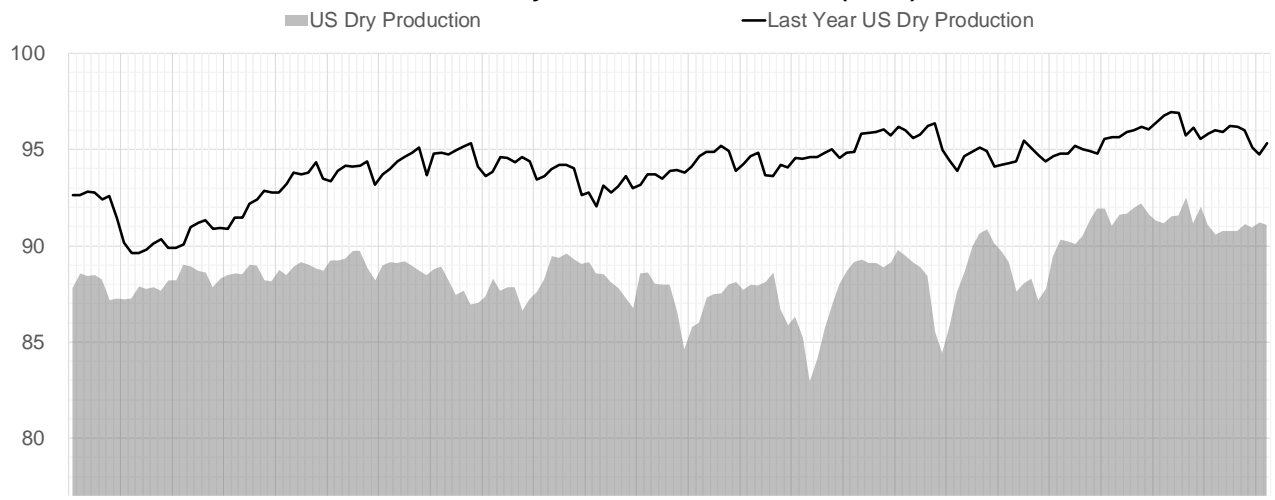
Winter Storage Forecast



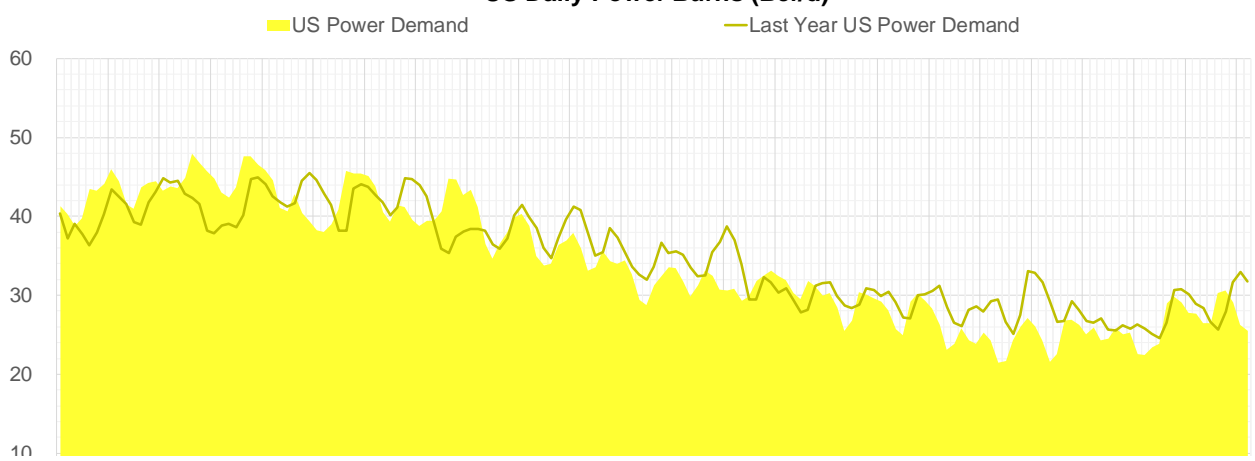
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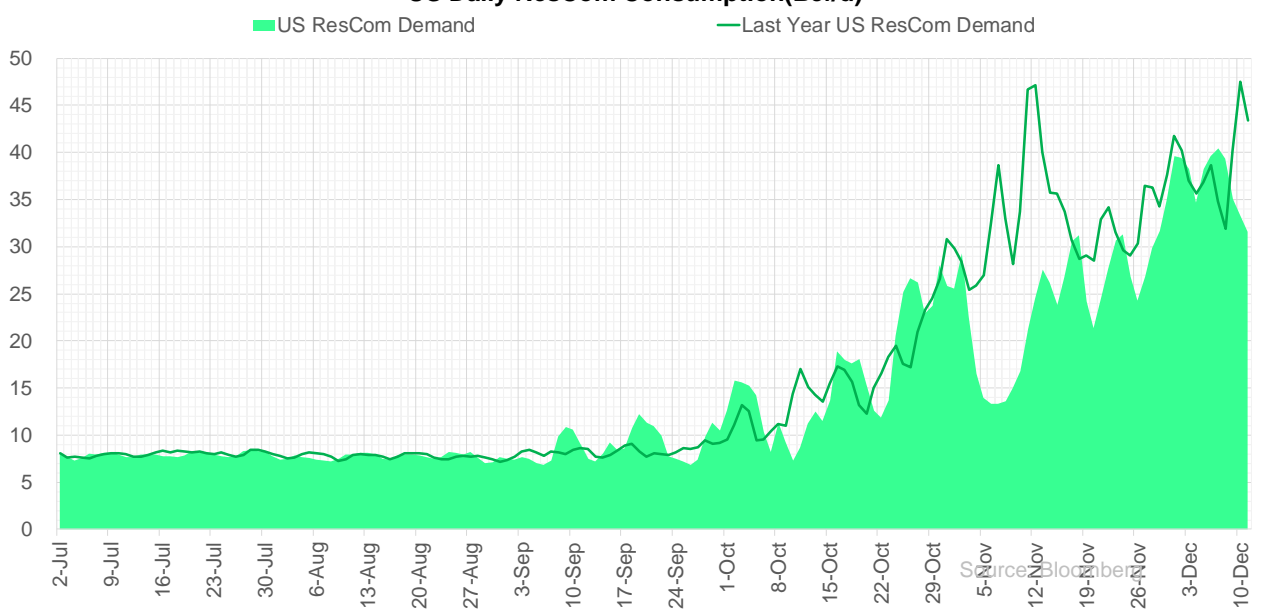
Supply – Demand Trends US Dry Natural Gas Production (Bcf/d)



US Daily Power Burns (Bcf/d)

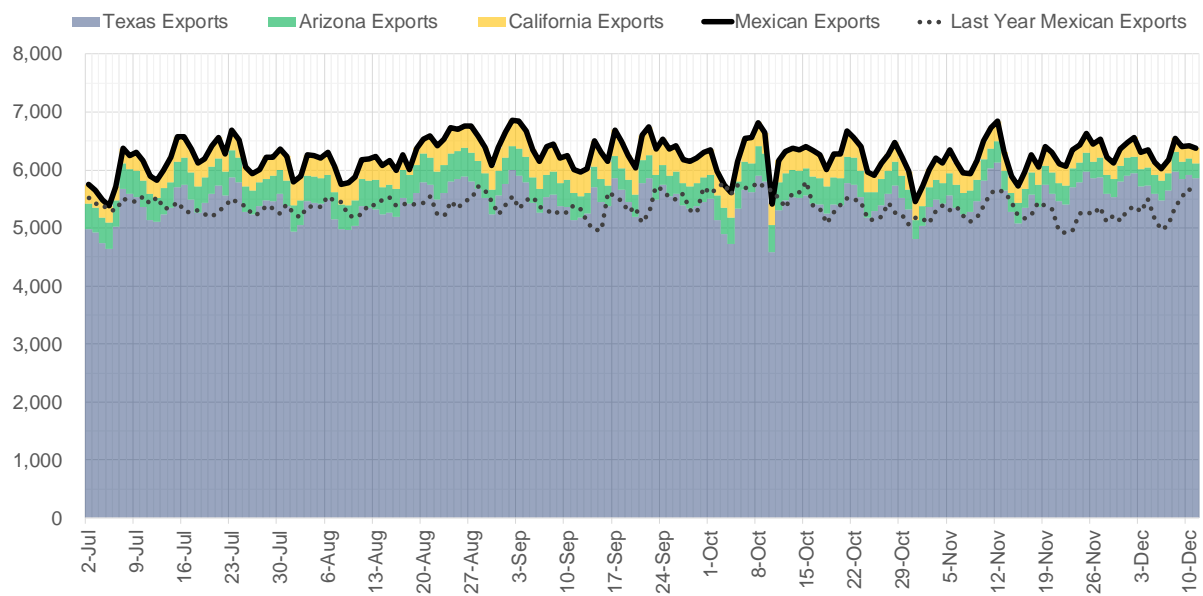


US Daily ResCom Consumption (Bcf/d)

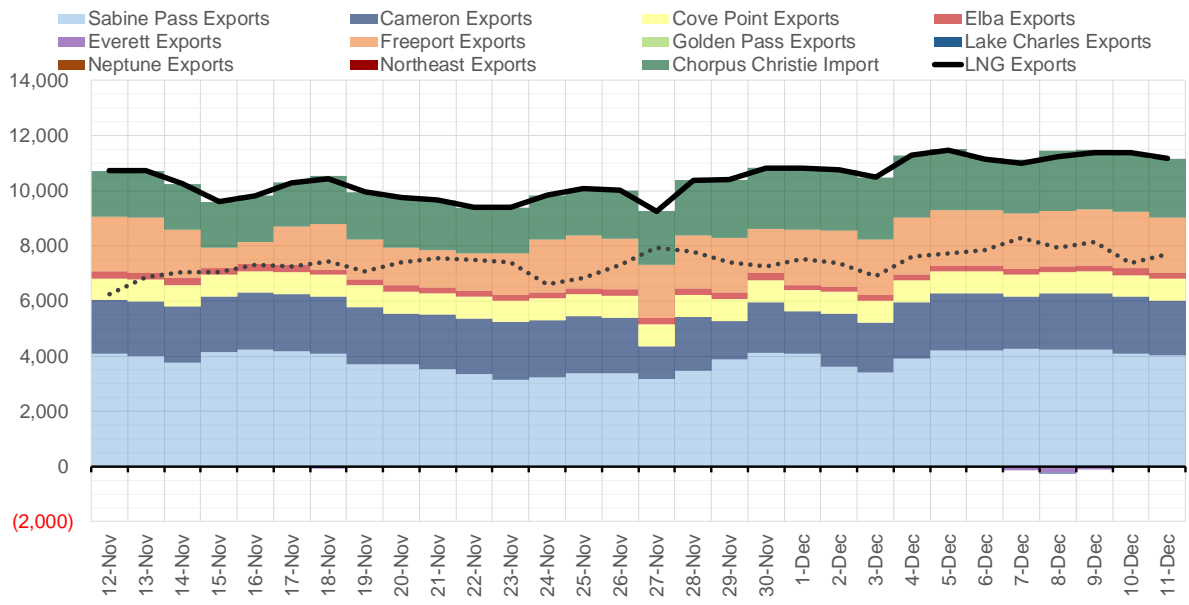


Source: Bloomberg

Mexican Exports (MMcf/d)



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



Source: Bloomberg

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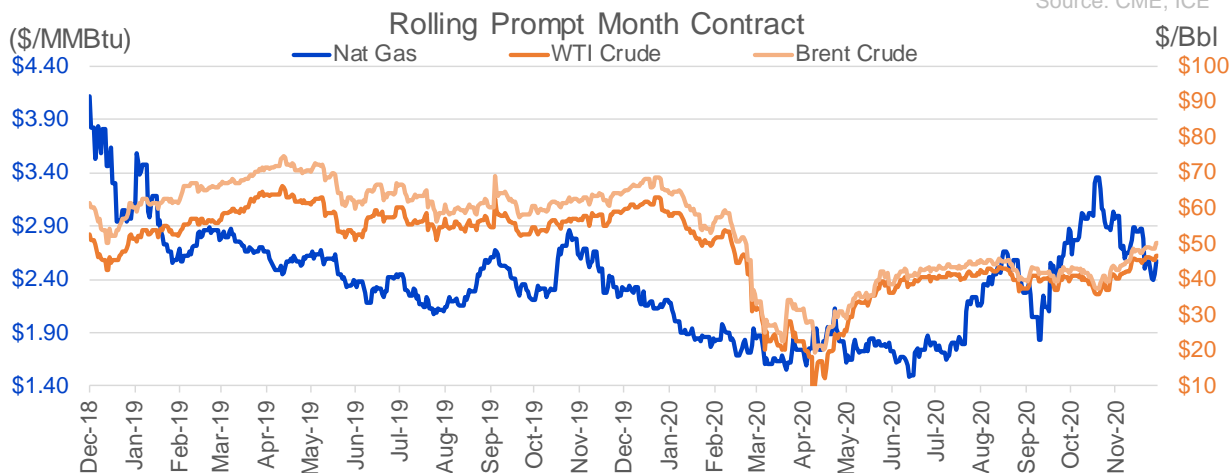
Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

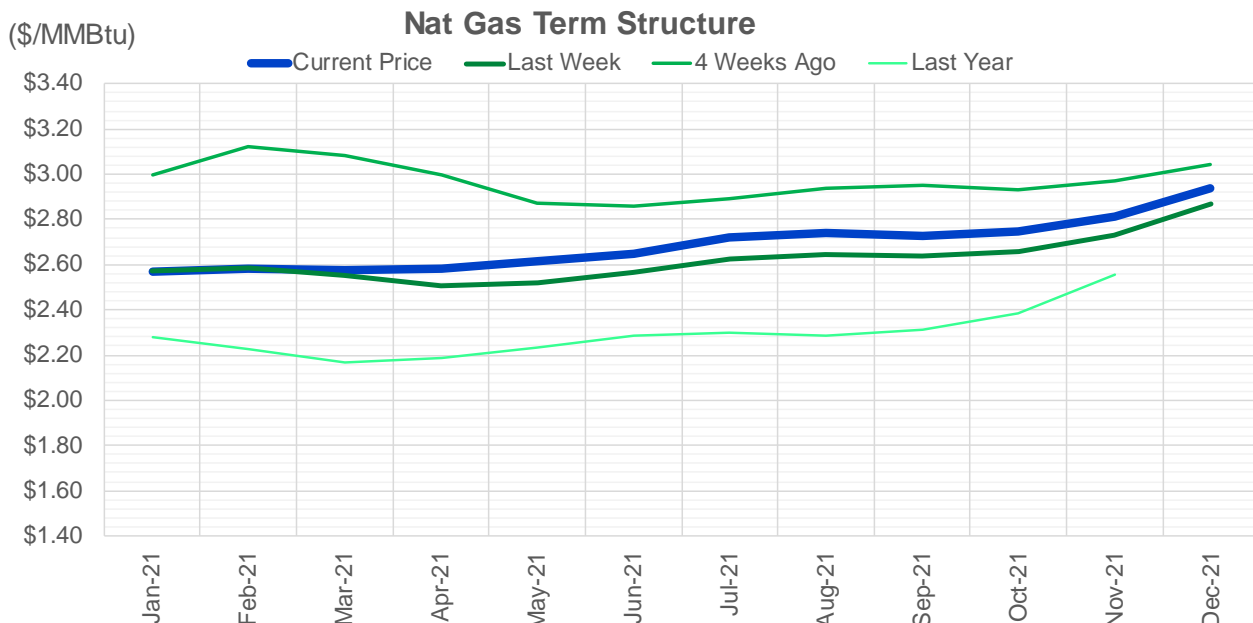
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
4	2021	C	3.50	6117	3	2021	P	2.00	42133
4	2021	C	3.25	5965	1	2021	C	3.50	37954
1	2021	C	3.25	5457	3	2021	C	5.00	37505
4	2021	C	4.25	5150	3	2021	C	6.00	35160
1	2021	C	2.75	4952	3	2021	C	4.00	33409
1	2021	P	2.25	4883	1	2021	P	2.50	32197
1	2021	C	3.00	4754	1	2021	C	3.00	29393
2	2021	P	2.00	3566	3	2021	C	3.00	29110
4	2021	P	2.25	2680	3	2021	C	3.25	28372
4	2021	P	2.00	2650	1	2021	C	4.50	27885
1	2021	C	2.90	2204	10	2021	C	4.00	27561
1	2021	P	2.00	2130	4	2021	C	4.00	27517
3	2021	C	3.50	2077	1	2021	C	4.00	25674
1	2021	P	2.50	1897	3	2021	C	4.50	25621
4	2021	C	4.00	1805	1	2021	C	5.00	25398
1	2021	C	2.85	1728	2	2021	P	2.25	24466
2	2021	C	2.50	1675	10	2021	C	3.25	23692
2	2021	C	4.00	1608	3	2021	C	3.50	23642
2	2021	C	3.25	1546	1	2021	C	3.75	22303
3	2021	P	2.00	1518	3	2021	P	2.50	22263
3	2021	P	2.50	1469	1	2021	P	2.25	22198
4	2021	C	3.75	1400	4	2021	C	3.00	21871
2	2021	C	3.00	1369	3	2021	C	7.00	21656
2	2021	P	2.10	1316	1	2021	C	6.00	21138
5	2021	C	4.00	1300	4	2021	C	3.25	20473
6	2021	C	4.00	1300	2	2021	C	4.00	19638
2	2021	P	2.25	1216	10	2021	C	5.00	19595
1	2021	P	2.40	1191	4	2021	C	3.50	19586
5	2021	P	2.00	1150	2	2021	P	2.50	19434
7	2021	P	2.00	1150	2	2021	C	3.50	19330
7	2021	C	4.00	1100	8	2021	C	4.00	19103
8	2021	C	4.00	1100	4	2021	C	2.75	19060
9	2021	C	4.00	1100	4	2021	C	5.00	18653
10	2021	C	4.00	1100	1	2021	P	2.00	18614
1	2021	C	2.80	1081	8	2021	P	2.25	18442
3	2021	C	3.00	1041	1	2021	C	2.75	18011
6	2021	P	2.50	1030	5	2021	C	3.00	18005
1	2021	P	2.20	991	2	2021	C	5.00	17269
1	2021	C	2.70	916	1	2021	C	3.25	16948
2	2021	P	2.20	879	2	2021	P	2.00	16423
1	2021	C	2.50	835	2	2021	C	3.00	16402
2	2021	C	3.50	831	4	2021	P	2.00	15979
3	2021	C	2.50	800	1	2021	P	2.75	14817
3	2021	C	10.00	750	6	2021	C	4.00	14796
3	2022	C	3.50	750	5	2021	C	3.50	14737
2	2021	P	2.50	738	10	2021	C	3.00	14646
3	2021	P	2.20	691	1	2021	P	3.00	14206
1	2021	P	2.30	661	2	2021	C	4.50	13983
1	2021	C	3.50	613	1	2021	C	7.00	13527
					5	2021	C	3.25	13323

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
JAN 21	157667	196256	-38589	JAN 21	91031	93051	-2019.75
FEB 21	148246	130714	17532	FEB 21	72160	72110	50.75
MAR 21	223927	203837	20090	MAR 21	98192	97664	528
APR 21	95666	94931	735	APR 21	82723	80990	1733
MAY 21	60866	61518	-652	MAY 21	75451	73855	1595.25
JUN 21	37255	38065	-810	JUN 21	62525	61878	646.25
JUL 21	30522	30388	134	JUL 21	63681	62962	719.25
AUG 21	27819	26706	1113	AUG 21	66426	65387	1038.5
SEP 21	44878	43288	1590	SEP 21	61269	60329	940.25
OCT 21	88703	90505	-1802	OCT 21	75390	74682	708
NOV 21	44659	43735	924	NOV 21	51117	51074	43.25
DEC 21	42202	40555	1647	DEC 21	50905	50322	583.5
JAN 22	39188	39700	-512	JAN 22	49134	48824	310
FEB 22	24609	25667	-1058	FEB 22	38576	38596	-19.5
MAR 22	27387	27530	-143	MAR 22	40136	39910	225.5
APR 22	24914	24582	332	APR 22	39187	39163	24.75
MAY 22	13124	12734	390	MAY 22	33024	32726	298
JUN 22	6469	6445	24	JUN 22	31243	31127	115.5
JUL 22	5800	5836	-36	JUL 22	32794	32788	5.5
AUG 22	5043	5089	-46	AUG 22	31805	31807	-2.25
SEP 22	4751	4789	-38	SEP 22	31419	31329	90.5
OCT 22	8355	8268	87	OCT 22	37068	37003	65.25
NOV 22	6293	6245	48	NOV 22	31479	31492	-13.25
DEC 22	6807	6762	45	DEC 22	33975	33983	-8
JAN 23	4495	4517	-22	JAN 23	15939	15855	84.25
FEB 23	1460	1407	53	FEB 23	14541	14496	45.5
MAR 23	2585	2583	2	MAR 23	14093	14084	9
APR 23	2221	2254	-33	APR 23	13475	13466	9.25
MAY 23	665	644	21	MAY 23	12538	12536	1.75
JUN 23	672	672	0	JUN 23	12542	12491	51.5





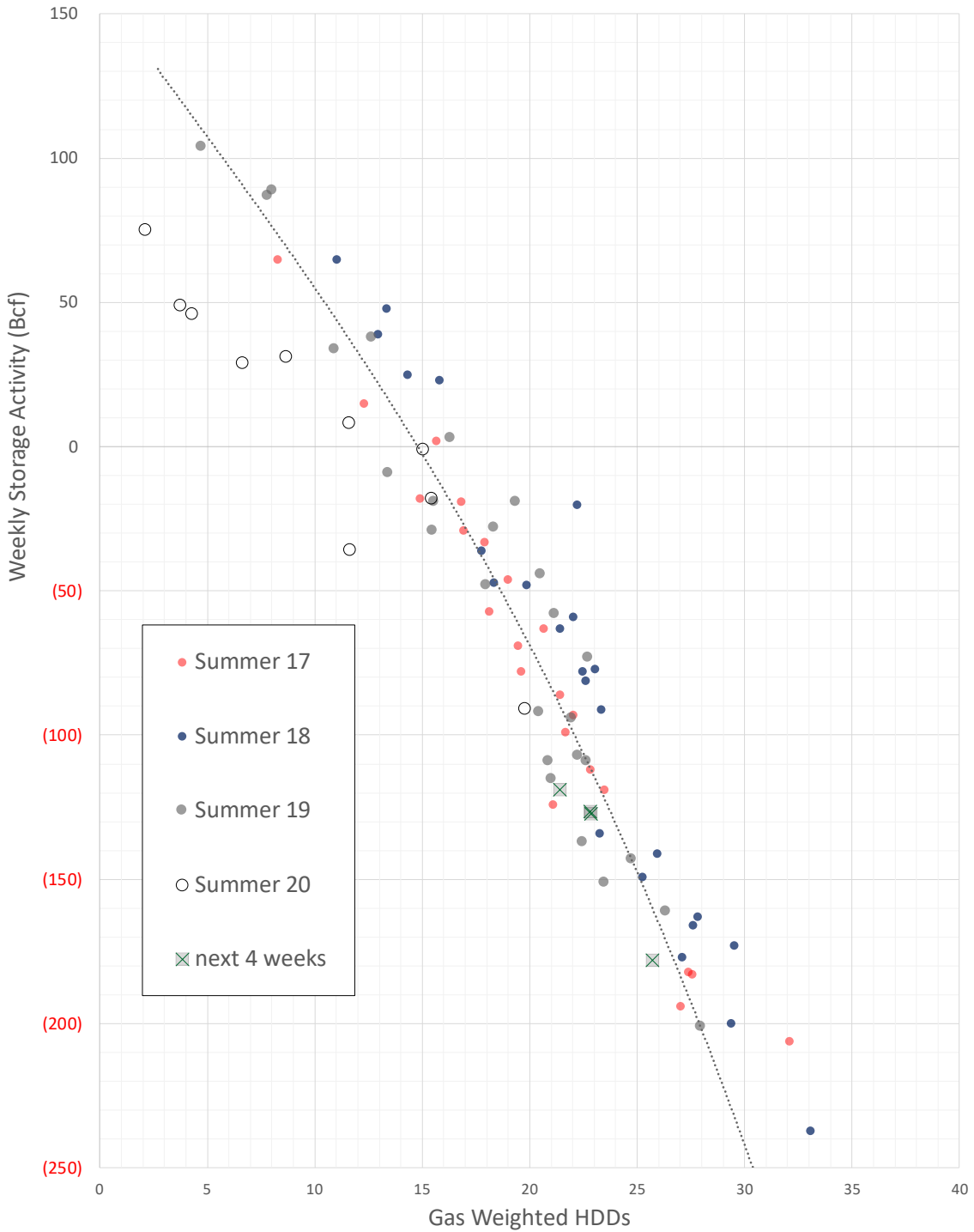
	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Current Price	\$2.570	\$2.582	\$2.575	\$2.582	\$2.614	\$2.650	\$2.720	\$2.741	\$2.729	\$2.745	\$2.814	\$2.935
Last Week	\$2.575	\$2.586	\$2.551	\$2.508	\$2.517	\$2.563	\$2.623	\$2.645	\$2.635	\$2.659	\$2.732	\$2.871
vs. Last Week	-\$0.005	-\$0.004	\$0.024	\$0.074	\$0.097	\$0.087	\$0.097	\$0.096	\$0.094	\$0.086	\$0.082	\$0.064
4 Weeks Ago	\$2.995	\$3.122	\$3.083	\$2.997	\$2.872	\$2.859	\$2.895	\$2.938	\$2.948	\$2.933	\$2.968	\$3.041
vs. 4 Weeks Ago	-\$0.425	-\$0.540	-\$0.508	-\$0.415	-\$0.258	-\$0.209	-\$0.175	-\$0.197	-\$0.219	-\$0.188	-\$0.154	-\$0.106
Last Year	\$2.296	\$2.282	\$2.228	\$2.170	\$2.187	\$2.236	\$2.286	\$2.298	\$2.285	\$2.315	\$2.387	\$2.554
vs. Last Year	\$0.274	\$0.300	\$0.347	\$0.412	\$0.427	\$0.414	\$0.434	\$0.443	\$0.444	\$0.430	\$0.427	\$0.381

	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	2.20	4.85	2.65
TETCO M3	\$/MMBtu	1.92	3.35	1.43
FGT Zone 3	\$/MMBtu	2.00	2.56	0.56
Zone 6 NY	\$/MMBtu	2.00	4.19	2.19
Chicago Citygate	\$/MMBtu	2.25	2.48	0.23
Michcon	\$/MMBtu	2.27	2.27	0.00
Columbia TCO Pool	\$/MMBtu	2.06	2.05	-0.01
Ventura	\$/MMBtu	2.25	2.75	0.50
Rockies/Opal	\$/MMBtu	3.20	2.33	-0.87
El Paso Permian Basin	\$/MMBtu	2.21	2.30	0.09
Socal Citygate	\$/MMBtu	4.57	3.16	-1.42
Malin	\$/MMBtu	3.20	2.97	-0.23
Houston Ship Channel	\$/MMBtu	2.43	2.50	0.07
Henry Hub Cash	\$/MMBtu	2.45	2.35	-0.10
AECO Cash	C\$/GJ	1.96	1.89	-0.07
Station2 Cash	C\$/GJ	1.95	3.41	1.46
Dawn Cash	C\$/GJ	2.27	2.32	0.05

Source: CME, Bloomberg

	Units	Current Price	vs. Last Week	vs. 4 Weeks Ago	vs. Last Year
NatGas Jan21/Apr21	\$/MMBtu	0.012	▲ 0.079	▲ 0.262	▲ 0.393
NatGas Mar21/Apr21	\$/MMBtu	0.007	▲ 0.050	▼ -0.118	▼ -0.235
NatGas Oct21/Nov21	\$/MMBtu	0.069	▼ -0.004	▼ -0.004	▲ 0.000
NatGas Apr21/Oct21	\$/MMBtu	0.163	▲ 0.247	▲ 0.009	▼ -0.125
WTI Crude	\$/Bbl	46.68	▲ 0.420	▲ 6.550	▼ -13.390
Brent Crude	\$/Bbl	50.10	▲ 0.850	▲ 7.320	▼ -15.120
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	143.37	▲ 3.070	▲ 22.950	▼ -55.270
Propane, Mt. Bel	cents/Gallon	0.59	▲ 0.001	▲ 0.037	▲ 0.073
Ethane, Mt. Bel	cents/Gallon	0.20	▲ 0.009	▼ -0.026	▲ 0.030
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.050
Coal, PRB	\$/MMBtu	0.70			
Coal, ILB	\$/MTon	31.05	▲ 0.000	▲ 0.000	▼ -4.000
Coal, ILB	\$/MMBtu	1.32			

Winter Storage Forecast



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