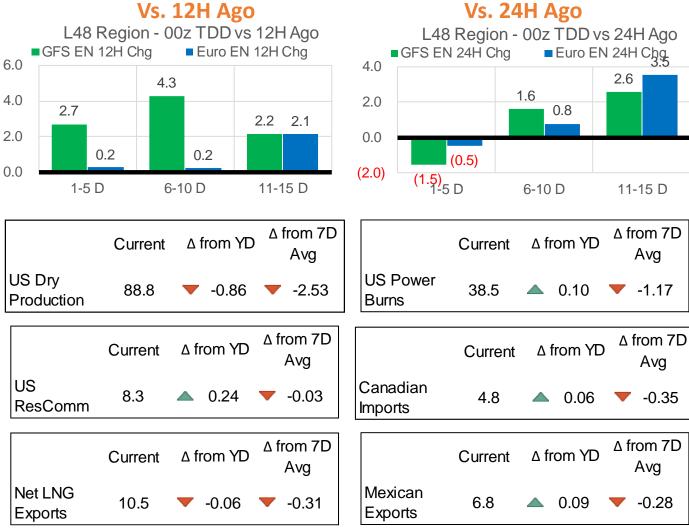


	Current	∆ from YD	∆ fror Av	n 7D vg
WTI Prompt	\$ 69.07	7 🔻 \$ (2.74)	▼\$	(3.7)

	C	urront	∆ from YD	∆ from 7D				
	U	uneni		A	vg			
Brent Prompt	\$	71.00	▼\$ (2.59)	▼\$	(3.4)			

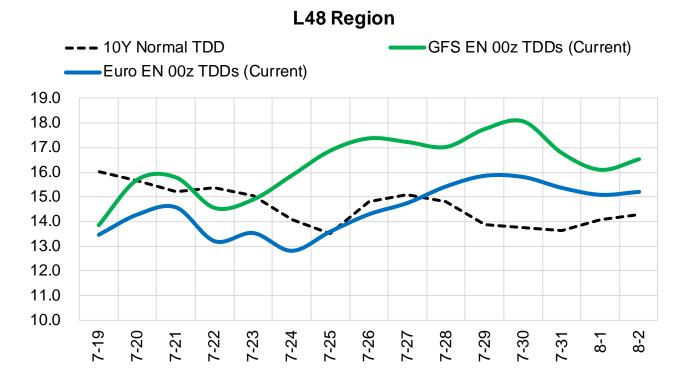
Short-term Weather Model Outlooks Lower 48 Component Models Regional S/D Models Storage Projection Weather Model Storage Projection Supply – Demand Trends Nat Gas Options Volume and Open Interest Nat Gas Futures Open Interest **Price Summary**

19 July 2021

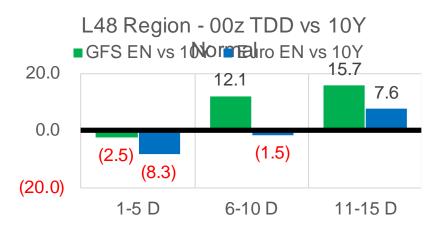




Short-term Weather Model Outlooks (00z)



Vs. 10Y Normal



Source: WSI, Bloomberg

Market Report

19 July 2021

Daily Balances

	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul	DoD	vs.7D
Lower 48 Dry Production	91.8	92.1	92.0	91.8	89.8	89.7	88.8	-0.9	▼ -2.4
Canadian Imports	5.5	5.7	5.3	4.9	4.7	4.7	4.8	0.1	T -0.4
L48 Power	39.9	40.1	41.2	40.6	38.3	38.4	38.5	a 0.1	▼-1.2
L48 Residential & Commercial	8.3	8.5	8.5	8.3	8.0	8.0	8.3	A 0.2	▼ 0.0
L48 Industrial	19.5	19.3	19.2	19.0	18.7	18.5	18.3	▼ -0.2	V -0.8
L48 Lease and Plant Fuel	5.1	5.1	5.1	5.1	5.0	5.0	4.9	▼ 0.0	▼ -0.1
L48 Pipeline Distribution	2.3	2.3	2.4	2.3	2.2	2.2	2.2	0 .0	▼ -0.1
L48 Regional Gas Consumption	75.1	75.2	76.3	75.2	72.1	72.1	72.2	0.1	▼ -2.2
Net LNG Delivered	10.87	11.08	11.02	11.03	10.67	10.57	10.51	-0.1	— -0.4
Total Mexican Exports	7.1	7.3	7.2	7.1	6.8	6.7	6.8	0.1	▼ -0.3
Implied Daily Storage Activity EIA Reported Daily Storage Activity	4.2	4.2	2.8	3.4	4.9	5.0	4.1		

Lower 48 Component Models

Daily Model Error

EIA Storage Week Balances

	11-Jun	18-Jun	25-Jun	2-Jul	9-Jul	16-Jul	WoW	vs. 4W
Lower 48 Dry Production	92.9	92.3	93.2	92.2	91.7	92.3	0.5	▼-0.1
Canadian Imports	4.8	5.1	4.7	5.2	5.1	5.2	0.1	0.2
L48 Power	34.6	34.8	34.4	39.7	37.1	38.7	1 .5	2 .2
L48 Residential & Commercial	8.5	8.3	8.4	8.3	8.0	8.2	a 0.3	▲ 0.0
L48 Industrial	21.4	22.4	20.0	21.5	20.0	19.7	T -0.3	T -1.3
L48 Lease and Plant Fuel	5.1	5.1	5.2	5.1	5.1	5.1	▲ 0.0	▲ 0.0
L48 Pipeline Distribution	2.1	2.1	2.1	2.4	2.1	2.2	0.1	▲ 0.0
L48 Regional Gas Consumption	71.8	72.7	70.1	77.0	72.3	73.9	1.7	0.9
Net LNG Exports	9.4	9.6	10.3	11.2	11.0	10.8	-0.2	0.3
Total Mexican Exports	7.3	7.5	7.6	7.2	7.1	7.1	0.0	T-0.2
Implied Daily Storage Activity	9.1	7.6	9.9	2.0	6.5	5.6	-0.9	
EIA Reported Daily Storage Activity	2.3	7.9	10.9	2.3	7.9			
Daily Model Error	6.9	-0.2	-0.9	-0.3	-1.4			

Monthly Balances

	2Yr Ago	LY	Max 04	A	May 04	lum 04	MTD	14-14	
	Jul-19	Jul-20	Mar-21	Apr-21	May-21	Jun-21	Jul-21	МоМ	vs. LY
Lower 48 Dry Production	91.9	89.1	91.5	92.3	92.2	92.7	91.4	▼ -1.3	2.4
Canadian Imports	5.0	4.4	4.8	4.7	4.5	4.9	5.1	0.2	0.7
L48 Power	40.8	43.7	24.3	25.0	27.1	35.3	38.1	2.8	- 5.6
L48 Residential & Commercial	8.0	7.9	29.3	19.7	13.4	8.4	8.1	T -0.3	a 0.2
L48 Industrial	21.6	20.4	19.3	21.2	19.2	21.0	19.6	▼ -1.4	V -0.8
L48 Lease and Plant Fuel	5.0	4.9	5.0	5.1	5.1	5.1	5.1	▼ -0.1	A 0.1
L48 Pipeline Distribution	2.3	2.4	2.5	2.3	2.1	2.2	2.2	▲ 0.0	V -0.3
L48 Regional Gas Consumption	77.8	79.4	80.6	73.3	66.7	72.0	73.1	1.1	▼ -6.2
Net LNG Exports	6.0	3.3	11.1	11.5	10.8	10.2	10.9	0.7	7.6
Total Mexican Exports	5.3	5.9	6.5	6.7	6.8	7.4	7.1	▼ -0.4	1.2
Implied Daily Storage Activity	7.8	5.0	-2.0	5.5	12.4	8.0	5.5		
EIA Reported Daily Storage Activity Daily Model Error									

Source: Bloomberg, analytix.ai



Daily Average Generation Data

Nuclear Generation Daily Average - GWh (NRC)

ENERGY

	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul	DoD	vs.7D
NRC Nuclear Daily Output	91.7	91.8	91.8	90.9	90.9	90.9	90.9	0.0	-0.4
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	104.9	0.0	0.0
NRC Nuclear Outage	13.1	13.1	13.1	13.9	13.9	13.9	13.9	0.0	0.4
NRC % Nuclear Cap Utilization	93.3	93.3	93.3	92.5	92.5	92.5	92.5	0.0	-0.4

Wind Generation Daily Average - MWh (Genscape)

	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul	DoD	vs.7D
CAISO Wind	4583	4583	4583	4583	4583	4583	4583	0	0
ERCOT	17483	19158	19042	16685	11149	7936	3892	-4044	-11350
Genscape US Wind	34970	50202	42372	32921	32921	32921	32921	0	-4797

Generation Daily Average - MWh (Genscape)

	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul	DoD	vs.7D
Genscape US Wind	34970	50202	42372	32921	32921	32921	32921	0	-4797
Genscape US Solar	17888	21335	24390	30812	30812	30812	30812	0	4804
Genscape US Other	4734	5599	5447	5808	5808	5808	5808	0	274
Genscape US Coal	127561	131601	136413	138617	138617	138617	138617	0	3379
Genscape US Nuke	95651	95679	95660	94882	94882	94882	94882	0	-391
Genscape US Hydro	23321	22848	22947	23439	23439	23439	23439	0	200
Genscape US Gas	233735	233682	243728	244474	244474	244474	244474	0	3713

See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

Storage Week Average Generation Data

Nuclear Generation Weekly Average - GWh (NRC)

	11-Jun	18-Jun	25-Jun	2-Jul	9-Jul	16-Jul	WoW	WoW Bcf/d Impact
NRC Nuclear Daily Output	88.6	86.7	89.9	89.1	89.5	90.6	1.1	-0.2
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	0.0	
NRC Nuclear Outage	16.3	18.1	15.0	15.7	15.4	14.3	-1.1	
NRC % Nuclear Cap Utilization	0.1	0.1	0.1	0.1	0.1	0.1	0.0	

Wind Generation Weekly Average - MWh (Genscape)

	11-Jun	18-Jun	25-Jun	2-Jul	9-Jul	16-Jul	WoW	WoW Bcf/d Impact
CAISO Wind	4607	3723	3254	4655	4583	4583	0	0.0
ERCOT	17072	10749	16549	10225	6583	13940	7357	-1.2
Genscape US Wind	43337	32707	50972	25398	24364	36668	12304	-2.1

Generation Weekly Average - MWh (Genscape)

								VVOVV
	11-Jun	18-Jun	25-Jun	2-Jul	9-Jul	16-Jul	WoW	Bcf/d
								Impact
Genscape US Wind	43337	32707	50972	25398	24364	36668	12304	-2.1
Genscape US Solar	15643	7817	12070	24039	15619	21148	5528	-0.9
Genscape US Other	5942	5201	4746	4728	4754	5151	397	-0.1
Genscape US Coal	118938	120230	118888	132762	121436	126462	5026	-0.8
Genscape US Nuke	92667	90822	93987	93205	93419	94570	1151	-0.2
Genscape US Hydro	32469	29459	30022	24181	23145	22869	-277	0.0
Genscape US Gas	212241	210769	202074	238370	218250	227753	9503	

See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai



Monthly Average Generation Data

Nuclear Generation Monthly Average - GWh (NRC)

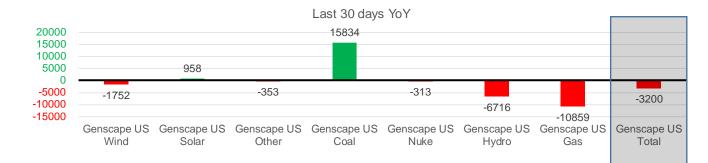
	2Yr Ago	LY				MTD			
	Same 30 days	Same 30 days	Apr-21	May-21	Jun-21	Jul-21	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
NRC Nuclear Daily Output	95.0	91.9	75.9	81.8	88.7	90.2	90.0	1.4	-1.9
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	104.9	0.0	0.0
NRC Nuclear Outage	9.8	13.0	29.0	23.1	16.2	14.7	14.9	-1.4	1.9
NRC % Nuclear Cap Utilization	96.6	93.4	77.1	83.2	90.2	91.7	91.5	1.5	-1.9

Wind Generation Monthly Average - MWh (Genscape)

	2Yr Ago	2Yr Ago LY					MTD				
	Same 30 days	Same 30 days	Apr-21	May-21	Jun-21	Jul-21	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY		
CAISO Wind	3615	3364	4009	3984	3994	4583	4362	589	998		
ERCOT	10999	14537	13820	15379	12995	9971	11246	-3024	-3292		
Genscape US Wind	31674	35458	50942	46211	36758	30499	33706	-6259	-1752		

Generation Monthly Average - MWh (Genscape)

	2Yr Ago	LY				MTD			
	Same 30 days	Same 30 days	Apr-21	May-21	Jun-21	Jul-21	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
Genscape US Wind	31674	35458	50942	46211	36758	30499	33706	▲ 3206.8	T -1752
Genscape US Solar	21585	19604	11261	15499	14357	21209	20563	▼ -646	4 958
Genscape US Other	4920	5312	4512	5256	5178	5108	4959	T -149	💌 -353
Genscape US Coal	135153	111072	73683	87336	119945	127725	126906	V -818	A 15834
Genscape US Nuke	97222	94324	79842	85659	92805	94128	94011	T -117	🔻 -313
Genscape US Hydro	32712	31161	27386	27514	29334	23126	24445	🔺 1318	T -6716
Genscape US Gas	223019	236203	152976	160888	212447	228104	225344	6673	T -10859
Genscape US Total	546285	533134	400602	428362	510825	529900	529934	A 10140	-3200



See National Wind and Nuclear daily charts

Source: Bloomberg, analytix.ai

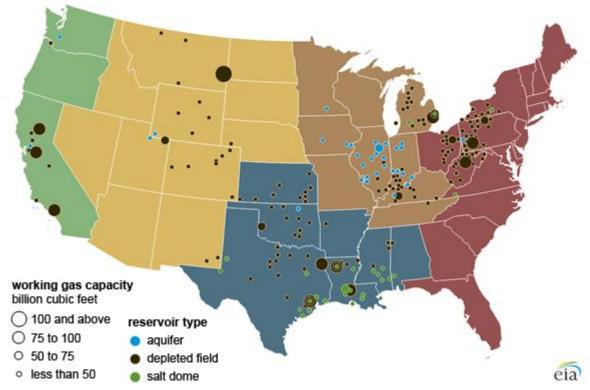


Regional S/D Models Storage Projection

Week Ending	16-Jul			
			Daily	
			Average	Weekly
	Daily Raw	Daily Adjustment	Storage Activity	Adjusted Storage
	Storage	Factor	(Adjusted) *	Activity
<u>L</u> 48	5.3	1.4	6.6	47
East	1.5	1.6	3.1	22
Midwest	3.6	-0.2	3.4	24
Mountain	4.6	-4.1	0.6	4
South Central	-4.3	3.9	-0.3	-2
Pacific	-0.2	0.1	-0.1	0

*Adjustment Factor is calcuated based on historical regional deltas

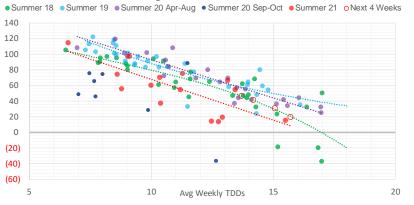
U.S. underground natural gas storage facilities by type (July 2015)



Weather Model Storage Projection

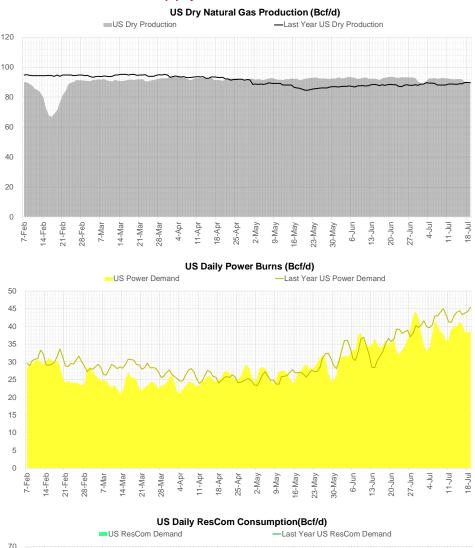
Next report and beyond		
Week Ending	GWDDs	Week Storage Projection
16-Jul	13.7	47
23-Jul	14.2	42
30-Jul	15.7	20
06-Aug	15.1	31

Weather Storage Model - Next 4 Week Forecast



Go to larger image

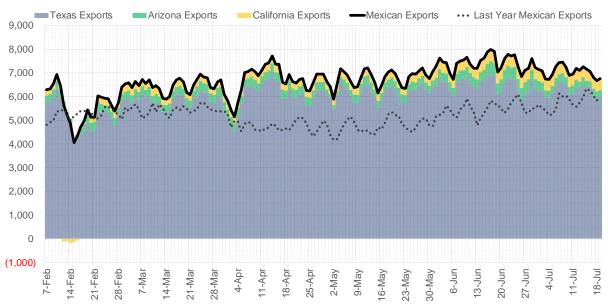


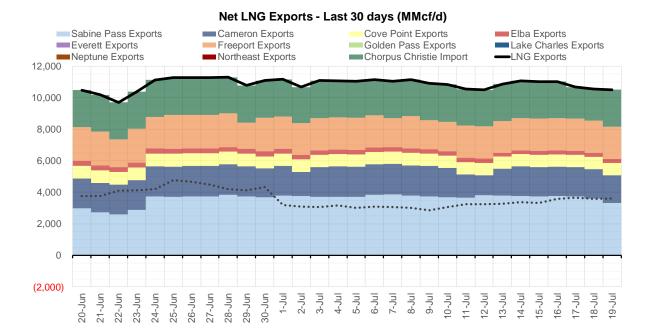


Supply – Demand Trends

70 60 50 40 30 20 10 0 7-Feb 14-Feb 21-Feb 28-Feb 13-Jun 20-Jun 27-Jun 18-Apr 25-Apr 16-May 23-May 30-May 6-Jun 4-Jul 11-Jul 18-Jul 7-Mar 28-Mar 4-Apr 11-Apr 2-May 9-May 14-Mar 21-Mai

Source: Bloomberg





Mexican Exports (MMcf/d)

Source: Bloomberg

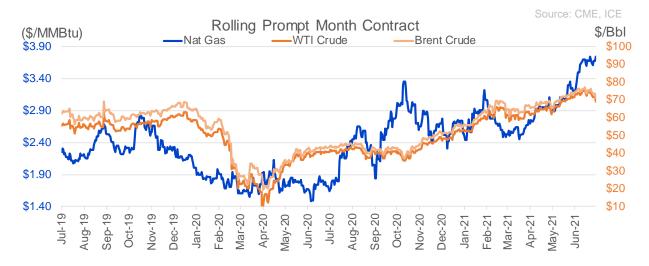


Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

	CONTRACT	PUT/CALL	STRIKE	CUMULATIVE	c	CONTRACT	CONTRACT	PUT/CALL	STRIKE	CUMULATIVE OI
MONTH	YEAR	I O I/O/(LL	OTTAIL	VOL		MONTH	YEAR	1 O II O II O II E	OTTAIL	
8	2021	Р	3.50	13537		8	2021	С	4.00	48469
8	2021	P	3.40	5322		10	2021	C	4.00	44222
8	2021	C	4.00	5013		8	2021	С	3.50	40893
10	2021	C	6.00	2680		9	2021	С	4.00	36619
9	2021	C	4.50	2664		10	2021	С	3.50	34270
9	2021	C	4.00	2608		10	2021	С	5.00	32858
8	2021	C	3.75	2378		10	2021	Р	2.50	32175
10	2021	P	3.00	2325		8	2021	Р	2.50	29351
9	2021	P	3.40	2235		10	2021	С	3.25	28364
10	2021	C	7.00	2150		8	2021	Р	3.00	27635
10	2021	P	3.50	2003		10	2021	Р	2.75	26677
10	2021	C	5.00	1616		10	2021	Р	2.00	26294
8	2021	č	3.90	1466		8	2021	С	3.75	25542
9	2021	c	5.00	1350		8	2021	Р	3.25	25019
3	2022	P	3.00	1350		10	2021	С	4.50	24734
12	2021	P	3.50	1255		8	2021	С	4.50	23888
12	2021	P	3.00	1250		9	2021	С	3.50	23573
1	2021	P	3.00	1250		8	2021	С	3.25	23527
1	2022	P	3.50	1250		9	2021	Р	2.50	23267
2	2022	P	3.00	1250		11	2021	С	4.00	23267
2	2022	P	3.50	1250		8	2021	Р	3.50	22834
						10	2021	Р	3.00	22193
3	2022	P	3.50	1250		12	2021	С	4.00	21935
9	2021	С	4.75	1217		9	2021	Р	3.00	20553
9	2021	С	4.25	1206		9	2021	Р	2.00	20427
9	2021	Р	3.00	1190		4	2022	С	3.00	19785
9	2021	Р	3.25	1089		10	2021	Р	2.25	19713
10	2021	С	4.00	932		8	2021	Р	2.00	19668
11	2021	С	4.00	917		8	2021	Р	2.90	19603
11	2021	С	5.00	869		8	2021	Р	2.25	19478
11	2021	С	4.75	855		9	2021	С	3.25	19002
8	2021	Р	3.25	811		10	2021	С	3.00	18500
8	2021	Р	3.65	810		8	2021	Р	2.75	18483
10	2021	Р	1.50	624		10	2021	С	6.00	16827
9	2021	Р	3.50	610		8	2021	Р	3.40	16765
10	2021	Р	2.75	535		10	2021	С	3.75	16686
8	2021	Р	3.30	516		9	2021	С	4.50	16286
11	2021	С	4.25	500		11	2021	Р	3.00	16014
11	2021	Р	3.50	500		3	2022	С	5.00	15937
8	2021	С	3.85	488		9	2021	С	4.25	15921
9	2021	С	3.95	471		8	2021	С	3.00	15825
8	2021	Р	3.20	433		9	2021	P	2.75	15771
8	2021	С	4.25	432		8	2021	С	3.30	15351
9	2021	С	3.60	406		11	2021	C	3.75	15327
12	2021	Р	2.75	400		9	2021	C	5.00	15060
8	2021	Р	3.35	389		10	2021	P	3.50	14715
9	2021	С	3.75	385		1	2022	C	4.00	14498
8	2021	C	3.95	365		3	2022	č	3.00	14448
8	2021	P	3.05	350		8	2021	č	4.25	14050
11	2021	P	3.00	350		3	2022		4	14001
						-		Source	e: CME, ICE	

Nat Gas Futures Open Interest CME, and ICE Combined

OME, and for combined									
CME Henry H	Hub Futures (1	0,000 MMBt		ICE Henry I	Hub Futures Con	tract Equiva			
	Current	Prior	Daily Change		Current	Prior	Daily Change		
AUG 21	100680	113118	-12438	AUG 21	92900	95884	-2985		
SEP 21	312449	306238	6211	SEP 21	86298	86159	139		
OCT 21	154447	155324	-877	OCT 21	99788	100587	-799		
NOV 21	107176	106723	453	NOV 21	73306	73259	47		
DEC 21	70725	69894	831	DEC 21	70319	70562	-243		
JAN 22	118921	119500	-579	JAN 22	78259	78477	-218		
FEB 22	47978	47624	354	FEB 22	66952	66894	58		
MAR 22	97690	97829	-139	MAR 22	68175	68247	-72		
APR 22	97942	97613	329	APR 22	64991	64865	126		
MAY 22	84786	84878	-92	MAY 22	67448	67239	209		
JUN 22	27591	27497	94	JUN 22	55654	55459	195		
JUL 22	21725	21965	-240	JUL 22	54179	54024	155		
AUG 22	23317	23028	289	AUG 22	55424	55254	171		
SEP 22	22552	23088	-536	SEP 22	55124	54922	203		
OCT 22	61550	60909	641	OCT 22	59228	59035	194		
NOV 22	24798	24783	15	NOV 22	47480	47450	31		
DEC 22	20358	20376	-18	DEC 22	50063	50042	22		
JAN 23	13656	13493	163	JAN 23	29483	29218	265		
FEB 23	4907	4971	-64	FEB 23	25164	25124	41		
MAR 23	7777	7840	-63	MAR 23	27689	27659	30		
APR 23	8769	8815	-46	APR 23	21558	22036	-478		
MAY 23	5774	5590	184	MAY 23	22618	22396	222		
JUN 23	2275	2269	6	JUN 23	20907	20886	21		
JUL 23	2460	2366	94	JUL 23	20996	20966	30		
AUG 23	1585	1500	85	AUG 23	20913	20884	29		
SEP 23	1948	1863	85	SEP 23	20565	20528	37		
OCT 23	2401	2401	0	OCT 23	21871	21856	15		
NOV 23	1109	1109	0	NOV 23	19769	19761	8		
DEC 23	1758	1758	0	DEC 23	21328	21321	7		
JAN 24	793	793	0	JAN 24	12516	12484	32		



vs. Last Year

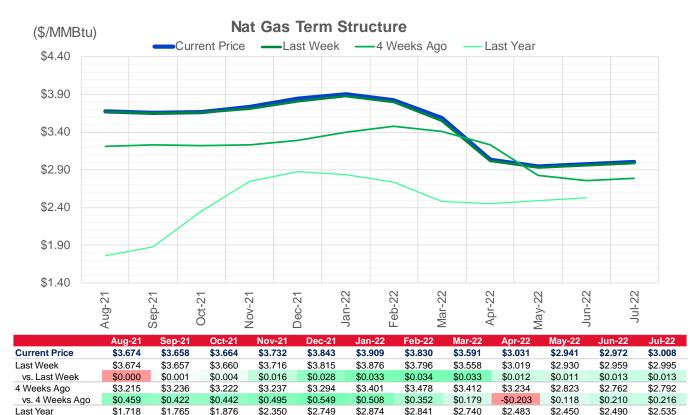
\$1.956

\$1.893

\$1.788

\$1.382

Market Report



		Cash	Prompt	Cash to
	Units	Settled	Settle	Prompt
AGT Citygate	\$/MMBtu	3.70	3.40	-0.30
TETCO M3	\$/MMBtu	3.14	3.23	0.09
FGT Zone 3	\$/MMBtu	3.55	3.76	0.21
Zone 6 NY	\$/MMBtu	3.55	3.20	-0.35
Chicago Citygate	\$/MMBtu	3.46	3.51	0.05
Michcon	\$/MMBtu	3.50	3.46	-0.04
Columbia TCO Pool	\$/MMBtu	3.21	3.01	-0.19
Ventura	\$/MMBtu	3.47	3.45	-0.02
Rockies/Opal	\$/MMBtu	3.55	3.41	-0.14
El Paso Permian Basin	\$/MMBtu	3.41	3.54	0.13
Socal Citygate	\$/MMBtu	6.29	5.00	-1.29
Malin	\$/MMBtu	3.70	4.03	0.33
Houston Ship Channel	\$/MMBtu	3.65	3.67	0.02
Henry Hub Cash	\$/MMBtu	3.70	3.45	-0.25
AECO Cash	C\$/GJ	3.04	2.80	-0.24
Station2 Cash	C\$/GJ	2.95	3.84	0.89
Dawn Cash	C\$/GJ	3.49	3.49	0.00

\$1.094

\$1.035

\$0.989

\$0.851

Source: CME, Bloomberg

\$0.548

\$0.491

The risk of trading futures and options and other derivatives involves a substantial risk of loss and is not suitable for all persons. Each person must consider whether a particular trade, combination of trades, or strategy is suitable for that person's financial means and objectives. Past results are not necessarily indicative of future results. This communication may contain links to third party websites which are not under the control of and are not maintained by ION Energy Group, and ION Energy Group is not responsible for their content.

\$0.473

\$0.482



					vs	. 4 Weeks		
	Units	Current Price	vs.	Last Week		Ago	vs	. Last Year
NatGas Jul21/Oct21	\$/MMBtu	0.047		0.004		0.025		0.028
NatGas Oct21/Nov21	\$/MMBtu	0.068		0.012		0.011		0.019
NatGas Oct21/Jan22	\$/MMBtu	0.245		0.029		0.004	▼	-0.032
NatGas Apr22/Oct22	\$/MMBtu	-0.004		0.005		-0.034	▼	-0.067
WTI Crude	\$/Bbl	71.81		-2.750		0.170		31.220
Brent Crude	\$/Bbl	73.59	\bullet	-1.960		0.080		30.450
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18		0.000		0.000		0.000
Heating Oil	cents/Gallon	211.33	\bullet	-4.190		2.010		89.420
Propane, Mt. Bel	cents/Gallon	1.10		-0.003		0.151		0.621
Ethane, Mt. Bel	cents/Gallon	0.31		0.000		0.029		0.089
Coal, PRB	\$/MTon	12.30		0.000		0.000		0.000
Coal, PRB	\$/MMBtu	0.70						
Coal, ILB	\$/MTon	31.05		0.000		0.000		0.000
Coal, ILB	\$/MMBtu	1.32						





Summer 18

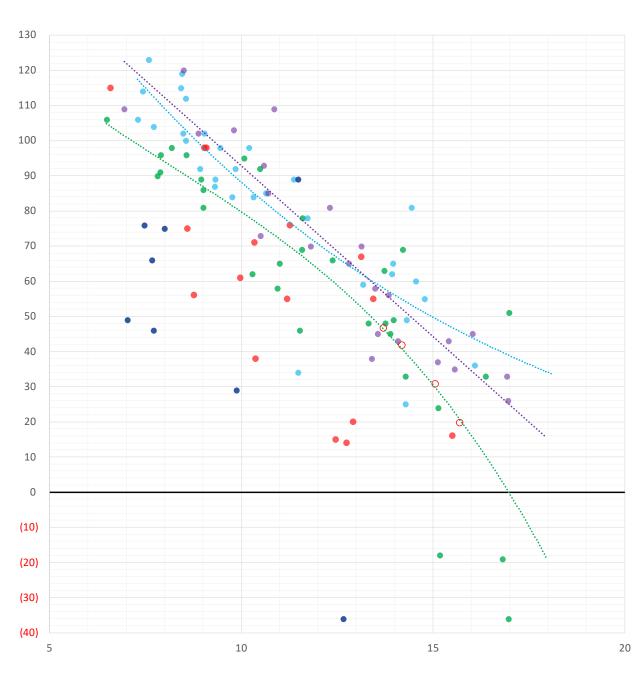
Summer 19

• Summer 20 Apr-Aug

Summer 20 Sept-Oct

t • Summer 21

ONext 4 Weeks



Market Report

ENERGY

19 July 2021

