

## **Market Report**

## **30 November 2022**

	Cı	urrent	Δ fro	m YD		m 7D vg
Nat Gas Prompt	\$	7.26	<b>\$</b>	0.02	<b>\$</b>	0.16

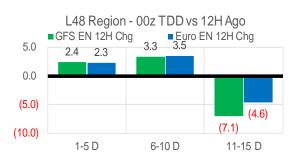
	Curre	ent	Δ fr	om YD	Δ fror Α\	
WTI Prompt	\$ 80	.43	<u> </u>	\$ 2.23	<b>\$</b>	3.3

	Cı	urrent	Δ fro	m YD	Δ fron Αν	
Brent Prompt	\$	85.14	<b>\$</b>	2.11	<b>\$</b>	1.2

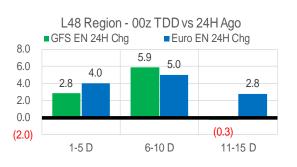
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## Vs. 12H Ago



## Vs. 24H Ago



	Current	Δ from YD	Δ from 7D Avg
US Dry Production	101.6	<b>-</b> 0.17	<b>▼</b> -0.45

	Current	Δ from YD	Δ from 7D Avg	
US ResComm	33.0	<b>2.04</b>	<b>3.58</b>	

	Current	Δ from YD	Δ from 7D Avg		
Net LNG Exports	12.8	<b>1.67</b>	<b>1.34</b>		

	Current	Δfr	om YD	Δf	Δ from 7D Avg		
US Power Burns	29.4		1.37		3.19		

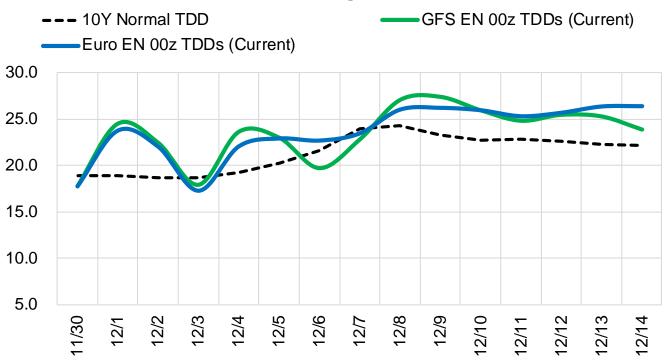
	Current	Δ from YD	Δ from 7D Avg		
Canadian Imports	5.8	<b>a</b> 0.30	<b>a</b> 0.68		

	Current	Δ from YD	Δ from 7D Avg
Mexican Exports	5.9	▼ -0.52	<b>▼</b> -0.32

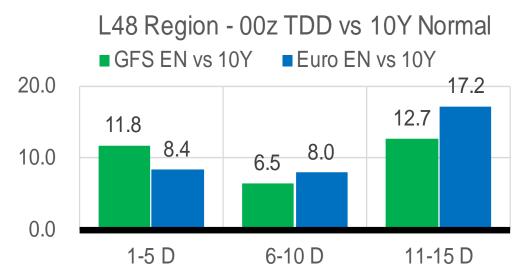


### Short-term Weather Model Outlooks (00z)





## Vs. 10Y Normal



Source: WSI, Bloomberg



## **Market Report**

#### **Daily Balances**

## Lower 48 Component Models

	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	29-Nov	30-Nov	DoD	vs. 7D
Lower 48 Dry Production	102.6	102.4	101.0	102.0	102.3	101.7	101.6	▼ -0.2	▼ -0.4
Canadian Imports	5.0	5.1	4.9	5.0	5.3	5.5	5.8	<b>0.3</b>	<b>0.7</b>
L48 Power	24.8	25.1	24.1	25.7	27.4	28.0	29.4	<b>1.4</b>	<b>3.6</b>
L48 Residential & Commercial	27.9	28.4	28.6	28.3	31.3	31.0	33.0	<b>2.0</b>	<b>3.8</b>
L48 Industrial	22.3	22.2	22.2	22.2	22.4	22.3	22.7	<b>0.4</b>	<b>0.4</b>
L48 Lease and Plant Fuel	5.7	5.7	5.6	5.7	5.7	5.7	5.6	▼ -0.1	<b>▼</b> -0.1
L48 Pipeline Distribution	3.0	3.1	3.0	3.1	3.4	3.4	3.6	<b>0.2</b>	<b>0.4</b>
L48 Regional Gas Consumption	83.8	84.5	83.6	85.0	90.2	90.4	94.3	<b>4.0</b>	<b>8.1</b>
Net LNG Delivered	11.20	11.31	11.60	12.04	11.55	11.11	12.78	<b>1.7</b>	<b>1.3</b>
Total Mexican Exports	6.1	6.3	6.1	5.9	6.4	6.4	5.9	▼ -0.5	▼ -0.3
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	6.5	5.4	4.7	4.0	-0.6	-0.6	-5.6		

EIA Storage Week Balances					
	LY	LW	Current		
	26-Nov	18-Nov	25-Nov	WoW	vs. LY
Lower 48 Dry Production	96.7	101.1	101.4	<b>0.3</b>	<b>4.7</b>
Canadian Imports	5.5	6.6	6.0	▼ -0.5	<b>0.5</b>
L48 Power	29.4	31.5	29.8	<b>▼</b> -1.7	0.3
L48 Residential & Commercial	31.8	35.5	38.5	<b>3.0</b>	6.6
L48 Industrial	23.8	24.8	23.8	<b>▼</b> -1.1	0.0
L48 Lease and Plant Fuel	5.4	5.6	5.7	<b>0.0</b>	0.3
L48 Pipeline Distribution	3.5	3.9	3.9	<b>0.1</b>	0.4
L48 Regional Gas Consumption	94.0	101.3	101.6	<b>0.3</b>	<b>7.6</b>
Net LNG Exports	11.7	12.1	12.0	▼ -0.1	<b>0.2</b>
Total Mexican Exports	6.0	6.5	6.0	▼ -0.5	▼-0.1
Implied Daily Storage Activity	-9.5	-12.2	-12.1	0.1	-2.6
EIA Reported Daily Storage Activity	-8.4	-11.4			
Daily Model Error	-1.1	-0.8			

<b>Monthly Balances</b>									
	2Yr Ago Nov-20	LY Nov-21	Jul-22	Aug-22	Sep-22	Oct-22	MTD Nov-22	MoM	vs. LY
Lower 48 Dry Production	91.2	96.4	97.7	98.2	100.6	101.2	101.1	▼-0.1	<b>4.6</b>
Canadian Imports	4.6	5.3	5.9	5.4	5.9	5.7	5.4	▼-0.3	<b>0.1</b>
L48 Power	25.7	29.3	44.8	43.8	37.0	30.2	29.4	▼-0.8	<b>0.1</b>
L48 Residential & Commercial	24.4	28.2	8.2	7.8	8.9	16.6	28.9	<b>12.3</b>	<b>0.7</b>
L48 Industrial	22.5	23.3	19.4	19.7	20.5	20.6	23.3	<b>2.7</b>	▼ 0.0
L48 Lease and Plant Fuel	5.0	5.4	5.5	5.5	5.5	5.7	5.6	▼ 0.0	<b>a</b> 0.3
L48 Pipeline Distribution	2.7	3.3	3.1	3.0	2.8	2.9	3.3	<b>0.5</b>	<b>0.0</b>
L48 Regional Gas Consumption	80.3	89.5	81.0	79.9	74.7	75.9	90.5	<b>14.6</b>	<b>1.0</b>
Net LNG Exports	10.1	11.4	10.9	11.0	11.5	11.3	11.7	<b>0.4</b>	<b>0.4</b>
Total Mexican Exports	6.1	6.1	7.0	6.9	6.7	6.6	6.3	▼-0.3	<b>0.2</b>
Implied Daily Storage Activity EIA Reported Daily Storage Activity	-0.7	-5.3	4.7	5.8	13.6	13.1	-2.1		
Daily Model Error					-0.5				



## **Daily** Average Generation Data

#### **Nuclear Generation Daily Average - GWh (NRC)**

	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	DoD	vs. 7D
NRC Nuclear Daily Output	84.8	85.7	86.1	87.3	87.8	87.6	88.5	8.0	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	20.1	19.2	18.8	17.6	17.1	17.3	16.4	-0.8	-1.9
NRC % Nuclear Cap Utilization	86.2	87.1	87.6	88.7	89.3	89.1	89.9	0.9	1.9

#### Wind Generation Daily Average - MWh (EIA)

	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	DoD	vs. 7D
CALI Wind	364	653	1452	726	1455	898	3957	3059	3032
TEXAS Wind	8480	10989	12560	16290	10743	7519	16682	9162	5585
US Wind	31950	52648	55344	54502	53534	49575	63839	14263	14247

#### **Generation Daily Average - MWh (EIA)**

	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	DoD	vs. 7D
US Wind	31950	52648	55344	54502	53534	49575	63839	14263	14247
US Solar	9590	10052	8947	7934	9425	10047	9739	-308	407
US Petroleum	726	927	838	818	324	458	953	496	272
US Other	8180	9332	7983	7575	7896	7795	7817	22	-310
US Coal	74897	89341	81290	79076	80034	80953	82463	1510	1532
US Nuke	78944	90721	91082	92170	92727	92817	93338	521	3595
US Hydro	25199	25628	23506	22391	23120	23302	25666	2364	1809
US Gas	150167	157238	127100	126390	128020	132867	145865	12999	8902

See National Wind and Nuclear daily charts



## **Storage Week** Average Generation Data

	_							
	26-Nov	28-Oct	4-Nov	11-Nov	18-Nov	25-Nov	WoW	WoW Bcf/d
								Impact
MDO Missala an Daile Ostas d	00.4	714	75.0	77.0	04.0	040	2.0	0.0

								Impact
NRC Nuclear Daily Output	86.1	74.1	75.8	77.2	81.2	84.2	3.0	-0.6
NRC Nuclear Max Capacity	104.9	104.9	104.9	104.9	104.9	104.9	0.0	
NRC Nuclear Outage	18.8	30.7	29.1	27.7	23.7	20.7	-3.0	
NRC % Nuclear Cap Utilization	87.6	75.4	77.1	78.5	82.6	85.6	3.1	

### Wind Generation Weekly Average - MWh (EIA)

**Nuclear Generation Weekly Average - GWh (NRC)** 

	26-Nov	28-Oct	4-Nov	11-Nov	18-Nov	25-Nov	WoW	WoW Bcf/d Impact
CALI Wind	1495	1974	1641	2226	1221	846	-375	0.1
TEXAS Wind	14691	17228	10904	14751	11139	9361	-1778	0.3
US Wind	56264	64748	44699	61742	37916	39991	2075	-0.4
							5%	
						-0.2		

Generation Weekly Average - M	eneration Weekly Average - MWh (EIA)								
	26-Nov	28-Oct	4-Nov	11-Nov	18-Nov	25-Nov	WoW	WoW Bcf/d Impact	
US Wind	56264	64748	44699	61742	37916	39991	2075	-0.4	
US Solar	9087	13756	11428	10434	10821	9897	-924	0.2	
US Petroleum	960	933	990	1023	1067	701	-366	0.1	
US Other	8446	9085	10014	9835	8735	8681	-54	0.0	
US Coal	82147	69841	75083	61417	66061	78044	11984	-2.2	
US Nuke	91272	77718	79723	78225	76194	81512	5318	-1.0	
US Hydro	27837	19097	21591	22698	25196	25232	36	0.0	
US Gas	150609	148302	157761	148047	152719	152408	-311	-0.1	

See National Wind and Nuclear daily charts



## **Monthly** Average Generation Data

Nuclear Generation Monthly Average - GWh (NRC)									
	2Yr Ago LY			MTD					
	Same 30 days	Same 30 days	Aug-22	Sep-22	Oct-22	Nov-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
NRC Nuclear Daily Output	81.8	82.7	90.5	86.2	76.1	81.8	81.8	5.7	-0.9
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	23.0	22.2	14.3	18.7	28.8	23.1	23.1	-5.7	0.9
NRC % Nuclear Cap Utilization	83.2	84.1	92.1	87.7	77.4	83.2	83.2	5.8	-0.9

#### Wind Generation Monthly Average - MWh (EIA)

	2Yr Ago	LY		MT			MTD			
	Same 30 days	Same 30 days	Aug-22	Sep-22	Oct-22	Nov-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY	
CALI Wind	1237	1252	2028	1608	1239	1809	1809	570	557	
TEXAS Wind	10460	11869	8440	7993	9916	12628	12628	2712	759	
US Wind	46294	49962	33222	38270	43698	50834	50834	7136	871	

#### **Generation Monthly Average - MWh (EIA)**

	2Yr Ago	ĹY				MTD			
	Same 30 days	Same 30 days	Aug-22	Sep-22	Oct-22	Nov-22	Last 30 days	MoM (MTD vs LY)	Last 30 days YoY
US Wind	46294	49962	33222	38270	43698	50834	50834	<b>a</b> 0.0	<b>871</b>
US Solar	7170	9691	16962	16163	14198	10230	10230	<b>0.0</b>	<b>539</b>
US Petroleum	895	1005	1251	864	899	900	900	<b>0</b>	<b>▼</b> -105
US Other	8774	8439	10597	10512	10517	8947	8947	<b>0</b>	<b>508</b>
US Coal	84313	80762	117203	92002	75808	71003	71003	<b>0</b>	<b>▼</b> -9759
US Nuke	85968	87415	92976	89062	78132	81617	81617	<b>0</b>	<b>▼ -5798</b>
US Hydro	30055	26738	30192	25203	19926	24289	24289	<b>0</b>	<b>▼</b> -2449
US Gas	136703	153520	233739	200120	162343	148768	148768	<b>a</b> 0	<b>▼ -4752</b>
US Total	399155	417835	535696	470764	405842	396421	396421	<b>0</b>	▼-21414



See National Wind and Nuclear daily charts



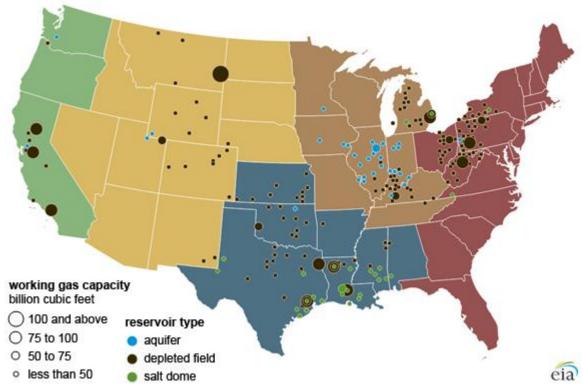
## Regional S/D Models Storage Projection

Week Ending 25-Nov

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	-11.3	-0.2	-11.5	-81
East	-5.9	2.4	-3.5	-25
Midwest	-4.7	0.1	-4.7	-33
Mountain	3.3	-3.9	-0.5	-4
South Central	-3.3	1.2	-2.0	-14
Pacific	-0.7	0.0	-0.8	-6

<sup>\*</sup>Adjustment Factor is calcuated based on historical regional deltas

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

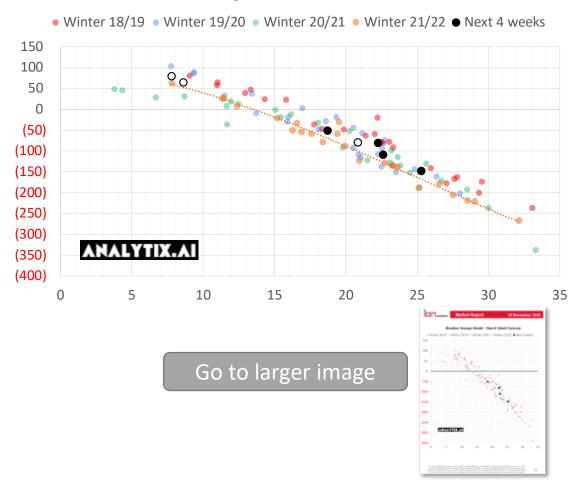




## Weather Model Storage Projection

Next report and beyond		
Week Ending	GWDDs	Week Storage Projection
25-Nov	22.3	-81
02-Dec	18.7	-51
09-Dec	22.6	-109
16-Dec	25.3	-148

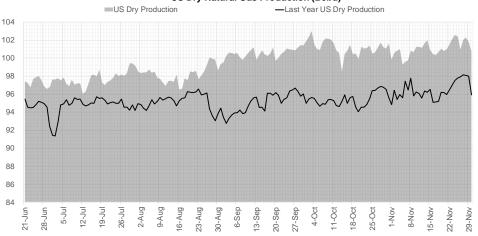
### Weather Storage Model - Next 4 Week Forecast



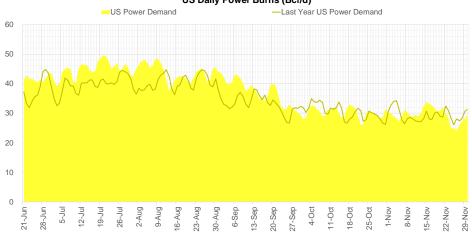


### Supply - Demand Trends

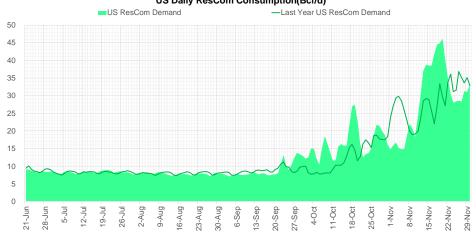
#### US Dry Natural Gas Production (Bcf/d)



#### US Daily Power Burns (Bcf/d)



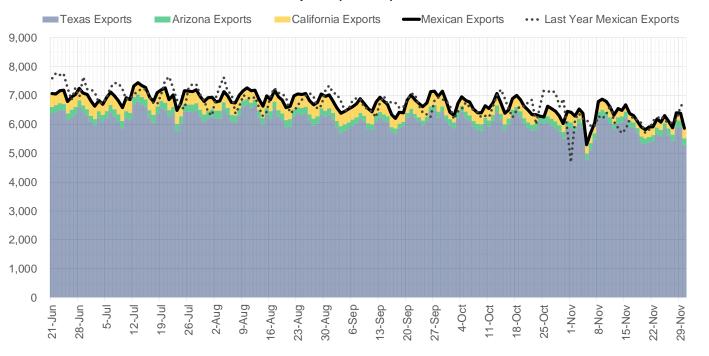
#### US Daily ResCom Consumption(Bcf/d)



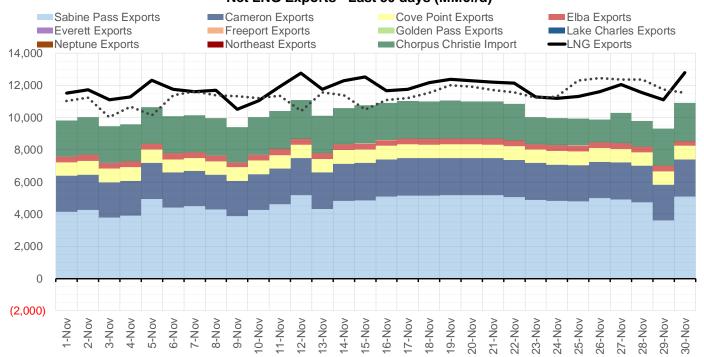
Source: Bloomberg



#### **Mexican Exports (MMcf/d)**



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



Source: Bloomberg



# Nat Gas Options Volume and Open Interest CME and ICE Combined

3 2023 P 400 4882 3 2023 P 4.00 3003 1 2023 P 4.00 3003 1 3 2023 P 4.00 3003 1 3 2023 P 4.80 4551 5 2023 P 2.00 3133 3 2023 P 4.80 3158 1 1 2023 C 10.00 2898 1 2023 P 2.00 3156 1 2 2023 C 10.00 2898 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	C	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
3 2023 P 400 4882 3 2023 P 400 30303 1 2023 P 400 3033 3 2023 P 400 4822 3 2023 P 200 3133 3 2023 P 480 4251 5 2023 P 200 3133 3 2023 P 480 4251 5 2023 P 200 3133 3 2023 P 4.30 3158 1 2023 P 2.00 3136 4 2022 P 3.00 2281 1 2023 P 5.00 3051 2 2023 P 3.00 2281 1 2023 P 5.00 3051 2 2023 P 3.00 2447 11 2023 P 4.00 3000 5 2023 P 5.00 2443 3 2023 P 5.00 2443 3 2023 P 5.00 2855 10 2023 P 5.00 2443 3 2023 P 5.00 2855 10 2023 P 5.00 2443 3 2023 P 5.00 2445 4 2023 P 7.00 228 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1	2023	С	10.00	5485		10	2023	Р	3.00	33440
1 2023 P 4,00 4622 3 2023 C 10,00 3139 3 2023 P 4,80 3158 1 2023 P 2,00 3113 3 2023 P 4,00 3158 1 2023 P 2,00 3113 1 2023 P 5,00 3136 4 2023 P 3,00 2791 1 2023 C 8,00 3051 2 2023 P 3,00 2791 1 2023 P 5,00 3000 1 2 2023 P 5,00 2443 3 2023 P 5,00 2555 7 2023 P 5,00 2443 3 2023 P 5,00 2555 7 2023 P 5,00 2443 1 2023 P 5,00 2555 7 2023 P 5,00 2443 1 2023 P 5,00 2555 7 2023 P 3,00 2425 1 2023 P 4,50 2551 3 3 2023 P 3,00 2235 1 2023 P 4,50 2551 3 3 2023 P 3,00 2358 1 2023 P 4,50 2551 3 3 2023 P 3,00 2358 1 2023 P 7,00 2503 6 2023 P 3,00 2358 1 2023 P 7,00 2503 6 2023 P 3,00 2358 6 2023 P 3,50 2506 4 2023 P 3,00 2358 5 2023 P 3,50 2506 4 2023 P 3,00 2358 5 2023 P 3,50 2506 4 2023 P 3,00 2358 5 2023 P 3,50 2506 4 2023 P 3,00 2358 5 2023 P 3,50 2506 4 2023 P 3,00 2358 6 2023 P 3,50 2506 5 2023 P 3,50 2340 7 2023 P 3,50 2506 5 2023 P 3,50 2340 7 2023 P 3,50 2506 5 2023 P 3,50 2340 7 2023 P 3,50 2506 5 2023 P 3,50 2340 7 2023 P 3,50 2506 5 2023 P 3,50 2340 7 2023 P 3,50 2506 5 2023 P 3,50 2340 7 2023 P 3,50 2506 5 2023 P 3,50 2340 7 2023 P 3,50 2506 5 2023 P 3,50 2340 7 2023 P 3,50 2506 5 2023 P 3,50 2340 7 2023 P 3,50 2100 8 2023 P 3,50 2255 8 2023 P 3,50 2100 9 2023 P 3,00 2233 9 2023 P 3,50 2100 9 2023 P 3,00 2233 9 2023 P 3,50 2100 9 2023 P 3,00 2233 1 2023 P 3,50 2100 9 2023 P 3,00 2233 1 2023 P 3,50 2100 1 2023 P 3,00 2233 1 2023 P 3,50 2100 1 2023 P 3,00 2233 1 2023 P 3,50 2100 9 2023 P 3,00 2233 1 2023 P 3,50 2100 1 2023 P 2,00 1958 1 2023 P 3,50 2100 1 2023 P 2,00 1958 1 2023 P 3,50 2100 1 2023 P 2,00 1958 1 2023 P 3,50 2100 1 2023 P 3,50 2255 1 2023 P 3,50 2100 1 2023 P 3,50 2255 1 2023 P 3,50 2100 1 2023 P 3,50 2255 1 2023 P 3,50 2100 1 2023 P 3,50 2255 1 2023 P 3,50 2100 1 2023 P 3,50 225 2 2023 C 10,00 1775 6 2023 P 2,00 1958 1 2023 P 3,50 2100 1 2023 P 2,00 1958 1 2023 P 3,50 2100 1 2023 P 2,00 1958 1 2023 P 3,50 2100 1775 P 2 2023 P 2,00 1958 1 2023 P 3,50 2023 P 3,50 2023 P 2,00 1958 2 2023 C 10,00 1775 P 2023 P 2,00 1958 2 2023 C 10,00 1775 P 2023 P 2,00 1958 3 2024 P 4,00 1466 P 2023 P 2,00 1958 3 2024 P									Р		32038
3 2023 P 4.80 4251 5 2023 P 2.00 3113 3 2023 P 4.00 3058 1 2023 C 10.00 2893 1 2023 P 5.00 3136 4 2023 P 3.00 2211 1 2023 C 8.00 3051 2 2023 P 3.00 2257 11 2023 C 8.00 3051 2 2023 P 3.00 2447 111 2023 P 4.00 3000 5 2023 P 3.00 2447 111 2023 P 4.00 3000 1 2023 P 5.00 2443 3 2023 P 5.00 2855 10 2023 P 5.00 2443 4 2023 P 3.50 2650 7 2023 P 3.00 2452 1 2023 P 3.50 2650 7 2023 P 3.00 2357 1 2023 P 4.00 2651 3 2023 P 3.00 2455 1 2023 P 7.00 2603 6 2023 P 3.00 2357 1 2023 P 3.50 2650 7 2023 P 2.00 2386 6 2023 P 3.50 2606 4 2023 P 2.00 2386 6 2023 P 3.50 2606 4 2023 P 2.00 2386 6 2023 P 3.50 2606 4 2023 P 2.00 2386 6 2023 P 3.50 2606 4 2023 P 3.00 2265 5 2023 C 12.00 2265 4 2023 P 3.50 2506 7 2023 P 3.50 2606 9 2023 P 3.50 2506 7 2023 P 3.50 2600 5 2023 P 3.50 2262 8 2023 P 3.50 2100 8 2023 P 3.50 2262 8 2023 P 3.50 2100 8 2023 P 3.00 2239 9 2023 P 3.50 2100 8 2023 P 3.00 2239 1 2023 P 3.50 2100 9 2023 P 3.00 2239 1 2023 P 3.50 2100 1 2023 P 4.00 2236 P 3.00 2239 1 2023 P 3.50 2100 1 2023 P 3.00 2239 1 2023 P 3.50 2100 1 2023 P 3.00 2239 1 2023 P 3.50 2100 1 2023 P 3.00 2239 1 2023 P 3.50 2100 1 2023 P 3.00 2239 1 2023 P 3.50 2100 1 2023 P 3.00 2239 1 2023 P 3.50 2100 1 2023 P 4.00 2271 1 2023 P 5.50 281 2 2023 C 9.00 2035 1 2023 P 3.50 2100 1 2023 P 4.00 2071 1 2023 P 5.50 281 2 2023 C 9.00 2035 1 2023 P 3.50 2100 1 2023 P 4.00 2071 2 2023 P 3.50 2100 1 2023 P 4.00 2071 2 2023 P 4.00 1465 6 2023 P 3.50 2809 1 2023 P 3.50 2100 1 2023 P 4.00 2071 2 2023 P 4.00 1465 6 2023 P 2.00 1981 2 2023 C 10.00 1775 7 2 2023 P 2.00 1981 2 2023 C 10.00 1371 8 2023 P 2.00 1981 2 2023 C 10.00 1371 8 2023 P 2.00 1981 2 2023 C 10.00 1371 8 2023 P 2.00 1983 2 2023 C 10.00 1371 8 2023 P 2.00 1983 2 2023 C 10.00 1371 8 2023 P 3.50 1862 2 2023 C 10.00 1371 8 2023 P 3.50 1862 2 2023 C 10.00 1371 8 2023 P 3.50 1862 2 2023 C 10.00 1371 8 2023 P 3.50 1862 2 2023 C 10.00 1371 8 2023 P 3.50 1862 2 2023 C 10.00 1371 8 2023 P 3.50 1862 2 2023 C 10.00 1371 8 2023 P 3.50 1862 2 2023 C 10.00 1371 8 2023 P 3.50 1862 2 2023 C 10.00 1371 8 2023 P 3.50 186							3	2023	С	10.00	31396
1 2023 P 4.00 3158 1 2023 P 3.00 2791 1 2023 C 8.00 3051 2 2023 P 3.00 2791 1 2023 C 9.00 3000 5 2 2023 P 3.00 2447 11 2023 P 5.00 2855 10 2023 P 5.00 2443 3 2023 P 5.00 2855 7 2023 P 2.50 2425 1 2023 P 4.00 2651 3 3 2023 P 2.50 2425 1 2023 P 4.50 2651 3 3 2023 P 2.50 2425 1 2023 P 4.50 2651 3 3 2023 P 3.00 2457 1 2023 P 4.50 2651 3 3 2023 P 3.00 2397 1 2023 P 5.00 2855 6 10 2023 P 3.00 2455 1 2023 P 4.50 2651 3 3 2023 P 3.00 2397 1 2023 P 5.00 2603 6 2023 P 3.00 2398 1 2023 P 7.00 2603 6 2023 P 3.00 2398 6 2023 P 3.50 2505 4 2023 P 3.00 2388 6 2023 P 3.50 2505 4 2023 P 3.00 2366 5 2023 P 3.50 2505 4 2023 P 3.50 2505 5 2023 P 3.50 2505 4 2023 P 3.50 2505 5 2023 P 3.50 2505 4 2023 P 3.50 2505 8 2023 P 3.50 2505 5 2023 P 3.50 2505 1 2023 P 3.50 2505 5 2023 P 3.50 2505 1 2023 P 3.50 2505 5 2023 P 3.50 2505 1 2023 P 3.50 2505 5 2023 P 3.50 2505 1 2023 P 3.50 2505 5 2023 P 3.50 2505 1 2023 P 3.50 2505 5 2023 P 3.50 2250 1 2023 P 3.50 2100 9 2023 P 3.50 2255 8 2023 P 3.50 2100 9 2023 P 3.50 2255 1 2023 P 3.50 2100 9 2023 P 3.50 2255 1 2023 P 3.50 2100 9 2023 P 3.50 2255 1 2023 P 3.50 2100 9 2023 P 3.50 2255 1 2023 P 3.50 2100 9 2023 P 3.50 2255 1 2023 P 3.50 2100 1 2023 P 4.00 2011 2 2 2023 P 3.50 2100 1 2023 P 4.00 2011 2 2 2023 P 3.50 2100 1 2023 P 4.00 2011 2 2 2023 P 3.50 2100 1 2023 P 4.00 2011 2 2 2023 P 4.00 2015 2 2023 C 10.00 2011 2 2 2023 P 4.00 2015 2 2023 C 2023 C 2000 2011 2 2 2023 P 4.00 2015 2 2023 C 2023 P 2.00 1985 1 2023 P 4.00 2015 2 2023 P 2.00 1985 2 2 2023 C 3.00 1465 4 2023 P 2.00 1985 2 2 2023 C 3.00 1465 4 2023 P 2.00 1985 2 2 2023 C 3.00 1465 6 2023 P 2.00 1985 2 2 2023 C 3.00 1477 7 2 2023 P 2.00 1985 2 2 2023 C 3.00 1477 7 2 2023 P 2.00 1985 2 2 2023 C 3.00 1477 7 2 2023 P 2.00 1985 2 2 2023 C 3.00 1477 7 4 2023 P 2.00 1985 2 2 2023 C 3.00 1477 7 4 2023 P 2.00 1985 2 2 2023 C 3.00 1477 7 4 2023 P 2.00 1985 2 2 2023 C 3.00 1477 7 4 2023 P 2.00 1985 2 2 2023 C 3.00 1477 7 4 2023 P 3.50 1981 2 2 2023 C 3.00 1477 7 4 2023 P 3.50 1981 2 2 2023 C 3.00 1477 7 4 2023 P 3.50 1981 2 2 2023 C 3.00 14	-		•								31139
1							1		С		28934
1 2023 C 8.00 3051 2 2023 P 3.00 2447.  111 2023 P 3.00 3000 5 2023 P 3.00 2447.  111 2023 P 5.00 2855 10 2023 P 5.00 2433.  3 2023 P 5.00 2855 10 2023 P 3.00 2425.  4 2023 P 3.50 2855 10 2023 P 3.00 2425.  1 2023 P 4.50 2851 3 2023 P 3.00 2397.  1 2023 P 4.50 2831 3 2023 P 3.00 2397.  1 2023 P 6.00 2817 10 2023 P 3.00 2397.  1 2023 P 7.00 2803 6 2023 P 3.00 2388.  1 2023 P 7.00 2803 6 2023 P 3.00 2388.  1 2023 P 3.50 2505 4 2023 P 3.00 2388.  5 2023 P 3.50 2506 4 2023 P 3.00 2386.  5 2023 P 3.50 2506 4 2023 P 3.50 2386.  5 2023 P 3.50 2500 5 2023 C 6.00 2342.  2 2023 C 12.00 2265 4 2023 P 3.50 2250.  8 2023 P 3.50 2100 8 2023 P 3.50 2250.  8 2023 P 3.50 2100 8 2023 P 3.00 2213.  8 2023 P 3.50 2100 8 2023 P 3.00 2213.  8 2023 P 3.50 2100 8 2023 P 3.00 2213.  1 2023 P 3.50 2100 1 2023 P 3.00 2213.  1 2023 P 3.50 2100 1 2023 P 3.00 2213.  1 2023 P 3.50 2100 1 2023 P 3.00 2213.  1 2023 P 3.50 2100 1 2023 P 3.00 2213.  1 2023 P 3.50 2100 1 2023 P 3.00 2213.  1 2023 P 3.50 2100 1 2023 P 3.00 2213.  1 2023 P 3.50 2100 1 2023 P 3.00 2213.  1 2023 P 3.50 2100 1 2023 P 3.00 2213.  1 2023 P 3.50 2100 1 2023 P 3.00 2213.  1 2023 P 3.50 2100 1 2023 P 4.00 2011.  2 2 2023 P 3.50 2814 10 2023 P 4.00 2011.  2 2 2023 P 4.00 2015 2 2023 C 9.00 2055.  1 2023 P 4.00 2015 2 2023 C 20.00 2011.  2 2 2023 P 4.00 2016 3 2023 P 2.00 1959.  1 2023 P 4.00 2016 3 2023 P 2.00 1959.  1 2023 P 4.00 1466 6 2023 P 2.00 1959.  1 2023 P 4.00 1466 6 2023 P 2.00 1959.  2 2023 C 10.00 1377 4 2023 P 2.00 1957.  2 2023 C 10.00 1377 4 2023 P 3.50 1872.  2 2023 C 10.00 1377 4 2023 P 3.50 1872.  3 2024 C 8.00 1175 7 2023 P 3.50 1872.  3 2024 C 8.00 1175 7 2023 P 3.50 1872.  3 2023 P 3.50 1100 6 2023 P 3.50 1872.  3 2023 P 3.50 1100 6 2023 P 3.50 1872.  3 2023 P 3.50 1100 6 2023 P 3.50 1872.  3 2023 P 3.50 1100 6 2023 P 3.50 1872.  3 2023 P 3.50 1100 6 2023 P 3.50 1872.  3 2023 P 3.50 1100 6 2023 P 3.50 1872.  3 2023 P 3.50 1100 6 2023 P 3.50 1872.  3 2023 P 3.50 1100 6 2023 P 3.50 1872.  3 2023 P 3.50 1100 6 2023 P 3.50 1872.  3 2023 P 3.50 1100 6 2023											27918
111   2023   C   9.00   3000   5   2023   P   3.00   2447.     111   2023   P   4.00   3000   1   2023   P   5.00   2443.     3   2023   P   5.00   2855   10   2023   P   2.50   2425.     4   2023   P   4.50   2650   7   2023   P   3.00   2425.     1   2023   P   4.50   2631   3   2023   P   3.00   2387.     1   2023   P   6.00   2617   10   2023   P   2.00   2388.     1   2023   P   6.00   2617   10   2023   P   3.00   2388.     1   2023   P   3.50   2505   4   2023   P   2.00   2388.     6   2023   P   3.50   2505   4   2023   P   2.00   2366.     5   2023   P   3.50   2505   4   2023   P   3.50   2346.     5   2023   P   3.50   2505   4   2023   P   3.50   2340.     7   2023   P   3.50   2266   4   2023   P   3.50   2340.     7   2023   P   3.50   2100   8   2023   P   3.50   2245.     8   2023   P   3.50   2100   9   2023   P   3.00   2213.     9   2023   P   3.50   2100   9   2023   P   3.00   2213.     10   2023   P   3.50   2100   9   2023   P   3.00   2213.     11   2023   P   3.50   2100   1   2023   P   3.00   2213.     12   2023   P   3.50   2100   1   2023   P   4.00   2071.     1   2023   P   3.50   2081   10   2023   P   4.00   2071.     1   2023   P   3.50   2081   10   2023   P   4.00   2071.     1   2023   P   3.50   2081   10   2023   P   4.00   2071.     1   2023   P   3.50   2081   10   2023   P   4.00   2071.     1   2023   C   7.50   1844   2   2   2023   C   20.00   2021.     1   2023   C   8.50   1668   8   2023   P   2.50   1983.     1   2023   C   8.50   1668   8   2023   P   2.50   1983.     1   2023   C   10.00   17675   2   2023   P   2.50   1983.     1   2023   C   10.00   1465   7   2023   P   2.00   1975.     2   2023   C   10.00   1465   7   2023   P   2.00   1975.     2   2023   C   10.00   1371   8   2023   P   2.00   1975.     2   2023   C   10.00   1465   7   2023   P   2.00   1975.     2   2023   C   10.00   1465   7   2023   P   2.00   1975.     2   2023   C   10.00   1371   8   2023   P   3.50   1863.     2   2023   C   10.00   1775   5   9   2023   P   3.50   1863.							2		С		25975
111   2023   P   4.00   3000   1   2023   P   5.00   2443   3   3   2023   P   5.00   2855   10   2023   P   2.50   2425   4   2023   P   3.50   2650   7   2023   P   3.00   2425   1   2023   P   4.50   2631   3   2023   P   3.00   2398   1   2023   P   6.00   2617   10   2023   P   2.00   2388   1   2023   P   7.00   2603   6   2023   P   2.00   2388   6   2023   P   3.50   2505   4   2023   P   2.00   2366   5   2023   P   3.50   2505   4   2023   P   3.50   2505   5   2023   P   3.50   2505   4   2023   P   3.50   2506   5   2023   P   3.50   2506   4   2023   P   3.50   2340   2   2   2023   P   3.50   2100   8   2023   P   3.50   2252   8   2023   P   3.50   2100   8   2023   P   3.50   2252   8   2023   P   3.50   2100   9   2023   P   3.00   2213   9   2023   P   3.50   2100   9   2023   P   3.00   2213   9   2023   P   3.50   2100   9   2023   P   3.00   2213   9   2023   P   3.50   2100   9   2023   P   3.00   2213   9   2023   P   3.50   2100   9   2023   P   3.00   2213   1   2023   P   3.50   2100   1   2023   P   4.00   2173   1   2023   P   4.00   2173   1   2023   P   4.00   2015   3   2023   P   4.00   2015   3   2023   P   4.00   2015   3   2023   P   3.50   2081   1   2023   P   4.00   2015   3   2023   P   3.50   2081   1   2023   P   4.00   2015   3   2023   P   3.50   2081   1   2023   P   4.00   2015   3   2023   P   2.00   2023   P   3.50   2081   1   2023   P   4.00   2015   3   2023   P   2.00   2023   P   2.00   2023   P   2.00   2023   P   3.50   2023   P							5	2023	Р	3.00	24478
2023   P   5.00   2855   10   2023   P   2.50   2425							1	2023	Р	5.00	24432
4			•				10	2023	Р	2.50	24255
1       2023       P       4.50       2631       3       2023       P       3.00       2397         1       2023       P       7.00       2603       6       2023       P       2.00       2388         6       2023       P       3.50       2505       4       2023       P       2.00       2366         5       2023       C       12.00       2265       4       2023       P       3.50       2304         2       2023       C       12.00       2265       4       2023       P       3.50       2240         7       2023       P       3.50       22100       8       2023       P       3.50       2252         8       2023       P       3.50       22100       8       2023       P       3.50       2210         9       2023       P       3.50       22100       9       2023       P       3.00       2208         10       2023       P       3.50       2100       9       2023       P       4.00       2011         1       2023       P       3.50       2100       1       2023       P <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>7</td><td>2023</td><td>Р</td><td>3.00</td><td>24252</td></t<>							7	2023	Р	3.00	24252
1       2023       P       6.00       2617       10       2023       P       2.00       2388         1       2023       P       7.00       2603       6       2023       P       3.00       2368         6       2023       P       3.50       2505       4       2023       P       2.00       2356         5       2023       P       3.50       2500       5       2023       P       3.50       2340         7       2023       P       3.50       2100       3       2023       P       3.50       2252         8       2023       P       3.50       2100       8       2023       P       3.50       2252         8       2023       P       3.50       2100       9       2023       P       3.00       2252         8       2023       P       3.50       2100       1       2023       P       4.00       22173         10       2023       P       5.50       2081       10       2023       P       4.00       22173         1       2023       P       5.50       2081       10       2023       C <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>3</td><td>2023</td><td>Р</td><td>3.00</td><td>23978</td></t<>							3	2023	Р	3.00	23978
1       2023       P       7.00       2803       6       2023       P       3.00       2368         6       2023       P       3.50       2505       4       2023       P       2.00       2342         2       2023       P       3.50       2500       5       2023       P       3.50       2340         7       2023       P       3.50       2100       3       2023       P       3.50       2252         8       2023       P       3.50       2100       9       2023       P       3.00       2213         9       2023       P       3.50       2100       9       2023       P       3.00       2213         9       2023       P       3.50       2100       1       2023       P       4.00       2173         1       2023       P       3.50       22100       1       2023       P       4.00       22173         1       2023       P       3.50       2210       1       2023       P       4.00       2015       2       2023       C       9.00       2205         1       2023       P       4.							10	2023	Р	2.00	23889
6 2023 P 3.50 2505 5 4 2023 C 6.00 2336 5 2023 C 6.00 2342 2 2023 C 12.00 2565 4 2023 P 3.50 2500 5 2023 C 6.00 2342 2 2 2023 C 12.00 2265 4 2023 P 3.50 2340 7 2023 P 3.50 2252 8 2023 P 3.50 2100 8 2023 P 3.50 2252 8 2023 P 3.50 2100 9 2023 P 3.50 2252 8 2023 P 3.50 2100 9 2023 P 3.00 2213 9 2023 P 3.50 2100 1 2023 P 4.00 2173 1 2023 P 4.00 2071 1 2023 P 4.00 1765 P 2 2023 P 3.50 1998 1 2023 P 6.50 1683 P 2.00 1995 1 2023 P 2.00 1995 1 2023 P 6.50 1689 P 2.00 1995 1 2023 P 2.00 1995 1 2023 P 2.00 1995 1 2023 P 4.00 1465 P 2.00 1995 1 2023 P 3.50 1998 1 2023							6	2023	Р	3.00	23680
5         2023         P         3.50         2500         5         2023         C         6.00         2342           2         2023         C         12.00         2265         4         2023         P         3.50         2340           7         2023         P         3.50         2100         8         2023         P         3.00         2213           8         2023         P         3.50         2100         9         2023         P         3.00         2218           9         2023         P         3.50         2100         1         2023         P         3.00         2218           10         2023         P         3.50         2100         1         2023         P         4.00         2017           1         2023         P         3.50         2081         10         2023         P         4.00         2015         2         2023         C         9.00         2071           1         2023         C         7.50         1844         3         2023         C         20.00         2021           1         2023         C         10.00         1787							4	2023	Р	2.00	23567
2         2023         C         12,00         2265         4         2023         P         3,50         2340           7         2023         P         3,50         2100         8         2023         P         3,50         2252           8         2023         P         3,50         2100         9         2023         P         3,00         2208           9         2023         P         3,50         2100         1         2023         P         4,00         2173           10         2023         P         3,50         2100         1         2023         P         4,00         2173           1         2023         P         5,50         2081         1         2023         C         9,00         2035           2         2023         P         5,50         2081         2         2023         C         9,00         2035           1         2023         C         7,50         1844         2         2023         C         10,00         2011           1         2023         C         10,00         1755         2         2023         C         15,00         2010 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>5</td> <td>2023</td> <td>С</td> <td>6.00</td> <td>23429</td>							5	2023	С	6.00	23429
7 2023 P 3.50 2100 8 2023 P 3.50 2252 8 2023 P 3.50 2253 8 2023 P 3.50 2100 9 2023 P 3.00 2213 9 2023 P 3.50 2100 9 2023 P 3.00 2208 110 2023 P 3.50 2100 1 2023 P 4.00 2173 11 2023 P 5.50 2081 10 2023 P 4.00 2071 11 2023 P 4.00 1787 2 2023 C 9.00 2021 11 2023 C 9.00 1787 2 2023 C 10.00 2011 11 2023 C 9.00 1787 2 2023 C 15.00 2010 1787 2 2023 C 15.00 2010 1787 1 2023 C 8.50 1683 8 2023 P 3.50 1998 1 2023 P 6.50 1669 5 2023 P 2.00 1995 1 2023 P 6.50 1669 5 2023 P 2.00 1995 1 2024 P 4.00 1465 6 2023 P 2.00 1981 2 2024 P 4.00 1465 6 2023 P 2.00 1981 2 2024 P 4.00 1465 7 2023 P 2.00 1981 1 2023 C 12.00 1431 9 2023 P 2.00 1975 1 2023 C 12.00 1431 9 2023 P 2.00 1975 1 2023 C 12.00 1431 9 2023 P 2.00 1975 1 2023 C 11.00 1413 5 2023 P 2.00 1975 1 2023 C 12.00 1431 9 2023 P 2.00 1975 1 2023 C 8.00 1377 4 2023 P 2.00 1973 2 2023 C 8.00 1377 4 2023 P 2.00 1973 2 2023 C 8.00 1377 4 2023 P 2.00 1973 2 2023 C 8.00 1377 4 2023 P 2.00 1973 2 2023 C 8.00 1377 4 2023 P 3.50 1862 2 2023 C 8.00 1377 5 5 2023 P 3.50 1862 2 2023 C 8.00 1377 5 5 2023 P 3.50 1862 2 2023 C 8.00 1377 6 9 2023 P 3.50 1872 2 2023 C 8.00 1377 6 9 2023 P 3.50 1872 2 2023 C 8.00 1375 5 9 2023 P 3.50 1872 2 2023 C 8.00 1375 5 9 2023 P 3.50 1872 2 2023 C 8.00 1375 5 9 2023 P 3.50 1852 2 2023 C 8.00 1375 5 9 2023 P 3.50 1852 2 2023 C 9.00 1375 5 9 2023 P 3.50 1852 2 2023 C 9.00 1377 6 9 2023 P 3.50 1852 2 2023 P 3.50 1852 2 2023 P 3.50 1872 2 2023 P 3.50							4	2023	Р	3.50	23405
8       2023       P       3.50       2100       8       2023       P       3.00       2213         9       2023       P       3.50       2100       9       2023       P       3.00       2208         10       2023       P       3.50       2100       1       2023       P       4.00       2071         1       2023       P       5.50       2081       10       2023       P       4.00       2071         2       2023       P       4.00       2015       2       2023       C       9.00       2035         1       2023       C       7.50       1844       2       2023       C       10.00       2011         1       2023       C       9.00       1787       2       2023       C       15.00       2010         3       2023       C       10.00       1755       2       2023       C       15.00       2010         3       2023       C       8.50       1683       8       2023       P       2.00       1981         1       2023       P       4.00       1465       6       2023       P <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>3</td><td>2023</td><td>Р</td><td>3.50</td><td>22520</td></t<>							3	2023	Р	3.50	22520
9 2023 P 3.50 2100 9 2023 P 4.00 2173 10 2023 P 3.50 2100 1 2023 P 4.00 2173 11 2023 P 5.50 2081 10 2023 P 4.00 2071 2 2023 P 4.00 2015 2 2023 C 9.00 2025 11 2023 C 7.50 1844 3 2023 C 20.00 2021 1 2023 C 9.00 1787 2 2023 C 15.00 2011 3 2023 C 10.00 1785 6 2 2023 C 15.00 2011 3 2023 C 10.00 1785 6 2 2023 C 15.00 2011 3 2023 C 16.00 1785 6 2 2023 C 15.00 2011 3 2023 C 16.00 1785 6 2 2023 C 15.00 2011 3 2023 C 16.00 1785 6 2 2023 P 3.50 1998 1 2023 C 8.50 1683 8 2023 P 2.00 1995 1 2023 P 6.50 1689 5 2023 P 2.00 1995 1 2024 P 4.00 1465 6 2023 P 2.00 1981 2 2024 P 4.00 1465 6 2023 P 2.00 1981 2 2024 P 4.00 1465 7 2023 P 2.00 1981 3 2024 P 4.00 1465 7 2023 P 2.00 1981 1 2023 C 11.00 1443 9 2023 P 2.00 1975 1 2023 C 12.00 1431 9 2023 P 2.00 1975 2 2023 C 11.00 1413 9 2023 P 2.00 1975 2 2023 C 11.00 1413 9 2023 P 2.00 1975 2 2023 C 8.00 1377 4 2023 P 2.00 1973 2 2023 C 8.00 1377 4 2023 P 2.00 1973 2 2023 C 8.00 1377 4 2023 P 3.50 1961 2 2023 C 8.00 1377 4 2023 P 3.50 1961 2 2023 C 8.00 1377 4 2023 P 3.50 1961 2 2023 C 8.00 1377 4 2023 P 3.50 1961 2 2023 C 8.00 1377 4 2023 P 3.50 1872 3 2023 C 8.00 1377 4 2023 P 3.50 1872 3 2023 C 8.00 1377 5 2023 P 3.50 1872 3 2023 C 8.00 1377 7 4 2023 P 3.50 1872 3 2023 C 8.00 1377 9 2023 P 3.50 1872 3 2023 C 8.00 1377 9 2023 P 3.50 1872 3 2023 C 8.00 1175 7 2023 P 3.50 1872 3 2023 C 8.00 1175 7 2023 P 3.50 1872 2 2023 C 8.00 1175 7 2023 P 3.50 1872 3 2024 C 8.00 1175 7 2023 P 3.50 1852 2 2024 C 8.00 1175 7 2023 P 3.50 1852 2 2024 C 8.00 1175 7 2023 P 3.50 1852 2 2023 C 9.00 1100 9 2023 P 4.00 1832 3 2023 P 5.00 1172 1 2023 P 4.00 1832 3 2023 P 5.00 1172 1 2023 P 4.00 1832 3 2023 P 5.50 1100 6 2023 P 4.00 1832							8	2023	Р	3.00	22131
10 2023 P 3.50 2100 1 2023 P 4.00 2173 1 2023 P 4.00 2071 1 2023 P 4.00 2071 1 2023 P 5.50 2081 10 2023 P 4.00 2071 2 2023 P 4.00 2015 2 2023 C 9.00 2035 2 2023 C 9.00 2021 1 2023 C 7.50 1844 2 2 2023 C 10.00 2011 1 2023 C 9.00 1787 2 2 2023 C 11.00 2011 2 2 2023 C 10.00 1787 2 2 2023 C 15.00 2010 3 2023 C 10.00 1785 6 2 2023 P 3.50 1988 1 2023 C 8.50 1683 8 2023 P 2.50 1988 1 2023 P 6.50 1669 8 2 2023 P 2.50 1983 1 2024 P 4.00 1465 6 2023 P 2.00 1981 2 2024 P 4.00 1465 6 2023 P 2.00 1981 2 2024 P 4.00 1465 7 2 2023 P 2.00 1981 2 2024 P 4.00 1465 7 2 2023 P 2.00 1981 2 2024 P 4.00 1465 7 2 2023 P 2.00 1975 1 2023 C 12.00 1431 9 2023 C 12.00 1431 9 2023 P 2.00 1975 1 2023 C 11.00 1431 9 2023 P 2.00 1973 2 2023 C 11.00 1431 9 2023 P 2.00 1973 2 2023 C 11.00 1431 9 2023 P 2.00 1973 2 2023 C 8.00 1377 4 2023 P 2.00 1973 2 2023 C 8.00 1377 4 2023 P 3.50 1961 2 2024 C 8.00 1377 4 2023 P 3.50 1862 3 2024 C 8.00 1377 4 2023 P 3.50 1862 2 2023 C 8.00 1371 8 2023 P 3.50 1862 2 2023 C 8.00 1377 4 2023 P 3.50 1862 2 2023 C 8.00 1377 4 2023 P 3.50 1862 2 2023 C 8.00 1371 8 2023 P 3.50 1862 2 2023 C 8.00 1371 8 2023 P 3.50 1862 2 2023 C 8.00 1175 7 2023 P 3.50 1862 2 2023 C 8.00 1175 7 2023 P 3.50 1862 2 2024 C 8.00 1175 7 2023 P 3.50 1862 2							9	2023	Р	3.00	22080
1 2023 P 5.50 2081 10 2023 P 4.00 2071 2 2023 P 4.00 2015 2 2023 C 9.00 2035 1 2023 C 7.50 1844 3 2023 C 20.00 2011 1 2023 C 7.50 1844 2 2 2023 C 10.00 2011 1 2023 C 9.00 1787 2 2023 C 110.00 2011 3 2023 C 10.00 1755 6 2023 P 3.50 1998 1 2023 C 8.50 1683 8 2023 P 2.00 1995 1 2023 P 6.50 1669 5 2023 P 2.00 1995 1 2024 P 4.00 1465 6 2023 P 2.00 1981 2 2024 P 4.00 1465 6 2023 P 2.00 1981 3 2024 P 4.00 1465 7 2023 P 2.00 1975 3 2024 P 4.00 1465 7 2023 P 2.00 1975 1 2023 C 11.00 1441 9 2023 P 2.00 1975 1 2023 C 12.00 1431 9 2023 P 2.00 1975 1 2023 C 11.00 1441 9 2023 P 2.00 1975 2 2023 C 11.00 1413 5 2023 P 2.00 1973 2 2023 C 8.00 1377 4 2023 P 3.50 1961 2 2024 C 8.00 1371 8 2023 P 3.50 1961 2 2024 C 8.00 1371 8 2023 P 3.50 1872 3 2024 C 8.00 1175 7 2023 P 3.50 1872 3 2024 C 8.00 1175 7 2023 P 3.50 1872 3 2023 C 11.00 1359 10 2023 P 3.50 1872 3 2023 C 11.00 1371 8 2023 P 3.50 1872 3 2023 C 11.00 1371 8 2023 P 3.50 1872 3 2024 C 8.00 1175 7 2023 P 3.50 1872 3 2023 C 12.00 1359 10 2023 P 3.50 1872 2 2023 C 11.00 1371 8 2023 P 3.50 1872 3 2024 C 8.00 1175 7 2023 P 3.50 1872 3 2024 C 8.00 1175 7 2023 P 3.50 1872 3 2024 C 8.00 1175 9 2023 P 3.50 1872 3 2024 C 8.00 1175 9 2023 P 3.50 1851 2 2023 C 9.00 1172 1 2023 P 3.50 1851 2 2023 P 5.00 1172 1 2023 P 3.50 1851 3 2024 C 8.00 1175 9 2023 P 3.50 1851 3 2024 C 8.00 1175 9 2023 P 3.50 1852 3 2024 C 8.00 1175 9 2023 P 3.50 1851 3 2024 C 8.00 1175 9 2023 P 3.50 1851 3 2024 C 8.00 1175 9 2023 P 3.50 1851 3 2024 C 8.00 1175 9 2023 P 3.50 1851 3 2024 C 8.00 1175 9 2023 P 3.50 1851 3 2024 C 8.00 1175 9 2023 P 3.50 1851 3 2023 P 5.55 1051 6 2023 P 3.50 1837							1	2023	Р	4.00	21731
2         2023         P         4.00         2015         2         2023         C         9.00         2021           1         2023         C         7.50         1844         3         2023         C         20.00         2021           1         2023         C         9.00         1787         2         2023         C         15.00         2010           3         2023         C         10.00         1755         6         2023         P         3.50         1998           1         2023         C         8.50         1683         8         2023         P         2.50         1998           1         2023         P         6.50         1669         5         2023         P         2.50         1983           1         2024         P         4.00         1465         6         2023         P         2.00         1981           2         2024         P         4.00         1465         4         2023         P         2.00         1975           3         2024         P         4.00         1465         7         2023         P         2.00         1975 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>10</td> <td>2023</td> <td>Р</td> <td>4.00</td> <td>20719</td>							10	2023	Р	4.00	20719
1       2023       C       7.50       1844       3       2023       C       20.00       2021:         1       2023       C       9.00       1787       2       2023       C       10.00       2011:         3       2023       C       10.00       1755       6       2023       P       3.50       1998:         1       2023       C       8.50       1683       8       2023       P       2.00       1995:         1       2023       P       6.50       1669       5       2023       P       2.00       1995:         1       2024       P       4.00       1465       6       2023       P       2.50       1983         2       2024       P       4.00       1465       6       2023       P       2.00       1997:         3       2024       P       4.00       1465       7       2023       P       2.00       1973:         3       2024       P       4.00       1465       7       2023       P       2.00       1975:         1       2023       C       11.00       1413       9       2023       P							2	2023	С	9.00	20359
1       2023       C       9.00       1787       2       2023       C       10.00       2011         3       2023       C       10.00       1755       6       2023       P       3.50       1998         1       2023       C       8.50       1683       8       2023       P       2.00       1998         1       2023       P       6.50       1669       5       2023       P       2.00       1995         1       2024       P       4.00       1465       6       2023       P       2.00       1981         2       2024       P       4.00       1465       6       2023       P       2.00       1981         2       2024       P       4.00       1465       4       2023       P       4.00       1975         3       2024       P       4.00       1465       7       2023       P       2.00       1975         1       2023       C       11.00       1413       9       2023       P       2.00       1973         2       2023       C       11.00       1413       5       2023       P							3	2023	С	20.00	20213
3 2023 C 10.00 1755 6 2023 P 3.50 1998 1 2023 C 8.50 1683 8 2023 P 2.00 1995 1 2024 P 6.50 1669 5 2023 P 2.00 1981 2 2024 P 4.00 1465 6 2023 P 2.00 1981 3 2024 P 4.00 1465 7 2023 P 2.00 1981 3 2024 P 4.00 1465 7 2023 P 2.00 1981 1 2023 C 11.00 1431 9 2023 P 2.00 1975 1 2023 C 11.00 1431 9 2023 P 2.00 1973 2 2023 C 11.00 1413 5 2023 P 2.00 1973 2 2023 C 11.00 1413 5 2023 P 2.00 1975 2 2023 C 11.00 1413 8 2023 P 2.00 1975 2 2023 C 11.00 1371 8 2023 P 2.75 1878 2 2023 C 10.00 1371 8 2023 P 2.75 1878 2 2023 C 10.00 1371 8 2023 P 3.50 1961 2 2024 C 8.00 1175 7 2023 P 3.50 1872 3 2024 C 8.00 1175 7 2023 P 3.50 1872 2 2024 C 8.00 1175 7 2023 P 3.50 1872 2 2024 C 8.00 1175 9 2023 P 3.50 1852 2 2024 C 8.00 1175 9 2023 P 3.50 1852 2 2024 C 8.00 1175 9 2023 P 3.50 1852 2 2023 P 5.00 1172 1 2023 P 3.50 1852 2 2023 P 5.00 1172 1 2023 P 3.50 1852 3 2024 C 8.00 1175 9 2023 P 3.50 1852 3 2024 C 8.00 1175 9 2023 P 3.50 1852 3 2023 P 5.00 1172 1 2023 P 3.00 1852 3 2023 P 5.00 1172 1 2023 P 3.00 1852 3 2023 P 5.00 1172 1 2023 P 3.50 1852 3 2023 P 5.00 1172 1 2023 P 3.50 1852 3 2023 P 5.00 1170 9 2023 P 3.50 1852 3 2023 P 5.00 1170 9 2023 P 3.50 1852 3 2023 P 5.00 1172 1 2023 P 3.00 1832 3 2023 P 5.00 1100 6 2023 P 3.00 1832 3 2023 P 5.00 1100 6 2023 P 3.00 1832 3 2023 P 5.25 1051 6 2023 P 4.00 1832								2023		10.00	20112
1 2023 C 8.50 1683 8 2023 P 2.00 1995 1 2024 P 4.00 1465 6 2023 P 2.00 1995 1 2024 P 4.00 1465 6 2023 P 2.00 1981 2 2024 P 4.00 1465 7 2023 P 2.00 1981 3 2024 P 4.00 1465 7 2023 P 2.00 1975 1 2023 C 12.00 1431 9 2023 P 2.00 1975 2 2023 C 11.00 1413 5 2023 P 2.00 1975 2 2023 C 11.00 1413 5 2023 P 2.00 1975 2 2023 C 11.00 1413 5 2023 P 2.00 1975 2 2023 C 10.00 1377 4 2023 P 2.75 1878 2 2023 C 10.00 1371 8 2023 P 3.50 1961 2 2023 C 10.00 1371 8 2023 P 3.50 1872 3 2024 C 8.00 1175 7 2023 P 3.50 1872 3 2024 C 8.00 1175 7 2023 P 3.50 1872 2 2023 C 11.00 1389 10 2023 P 3.50 1872 3 2024 C 8.00 1175 7 2023 P 3.50 1872 2 2024 C 8.00 1175 7 2023 P 3.50 1872 2 2024 C 8.00 1175 9 2023 P 3.50 1852 3 2024 C 8.00 1175 9 2023 P 3.50 1852 3 2024 C 8.00 1175 9 2023 P 3.50 1852 3 2024 C 8.00 1175 9 2023 P 3.50 1851 2 2023 C 9.00 1100 9 2023 P 3.50 1851 2 2023 C 9.00 1100 9 2023 P 3.50 1851 2 2023 C 9.00 1100 9 2023 P 3.50 1851 2 2023 C 9.00 1100 9 2023 P 3.00 1837 3 2024 C 8.00 1175 9 2023 P 3.50 1851 2 2023 C 9.00 1100 9 2023 P 3.00 1832 3 2024 C 8.00 1175 9 2023 P 3.50 1851 2 2023 C 9.00 1100 9 2023 P 3.00 1837 3 2023 P 5.00 1100 9 2023 P 4.00 1832 3 2023 P 5.00 1100 6 2023 P 4.00 1832 3 2023 P 5.25 1051 6 2023 P 4.00 1832 3 2023 P 5.25 1051 6 2023 P 4.00 1832							2	2023	С	15.00	20104
1       2023       P       6.50       1669       5       2023       P       2.00       19951         1       2024       P       4.00       1465       6       2023       P       2.00       1981         2       2024       P       4.00       1465       4       2023       P       2.00       1981         3       2024       P       4.00       1465       7       2023       P       4.00       1975         1       2023       C       12.00       1431       9       2023       P       2.00       1975         2       2023       C       11.00       1413       5       2023       P       2.00       1973         2       2023       C       8.00       1377       4       2023       P       2.75       1878         2       2023       C       10.00       1371       8       2023       P       3.50       1961         2       2023       C       10.00       1371       8       2023       P       3.50       1872         3       2023       C       8.00       1175       7       2023       P <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>6</td><td>2023</td><td>Р</td><td>3.50</td><td>19985</td></td<>							6	2023	Р	3.50	19985
1 2024 P 4.00 1465 6 2023 P 2.00 1981 2 2024 P 4.00 1465 4 2023 P 4.00 1975 3 2024 P 4.00 1465 7 2023 P 2.00 1975 1 2023 C 12.00 1431 9 2023 P 2.00 1973 2 2023 C 11.00 1413 5 2023 P 2.00 1973 2 2023 C 11.00 1413 5 2023 P 2.00 1973 2 2023 C 11.00 1413 5 2023 P 2.75 1878 2 2023 C 10.00 1377 4 2023 P 2.75 1878 2 2023 C 10.00 1371 8 2023 P 3.50 1872 3 2023 C 10.00 1371 8 2023 P 3.50 1872 3 2024 C 8.00 1175 7 2023 P 3.50 1872 1 2024 C 8.00 1175 7 2023 P 3.50 1852 2 2024 C 8.00 1175 7 2023 P 3.50 1852 2 2024 C 8.00 1175 7 2023 P 3.50 1852 2 2024 C 8.00 1175 9 2023 P 3.50 1852 3 2024 C 8.00 1175 9 2023 P 3.50 1852 2 2023 P 3.50 1852 3 2024 C 8.00 1175 9 2023 P 3.50 1852 3 2024 C 8.00 1175 9 2023 P 3.50 1851 2 2023 P 5.00 1172 1 2023 P 3.00 1837 2 2023 P 5.00 1172 1 2023 P 3.00 1837 3 2023 P 5.00 1100 9 2023 P 4.00 1832 3 2023 P 4.20 1100 6 2023 P 2.50 1823 3 2023 P 5.25 1051 6 2023 P 2.50 1823 3 2023 P 5.25 1051 6 2023 P 4.00 1822 3 2023 P 3.50 1027 2 2023 C 8.00 1816							8	2023	Р	2.00	19950
2 2024 P 4.00 1465 4 2023 P 4.00 1975 3 2024 P 4.00 1465 7 2023 P 2.00 1975 1 2023 C 12.00 1431 9 2023 P 2.00 1975 2 2023 C 11.00 1413 5 2023 P 2.00 1973 2 2023 C 8.00 1377 4 2023 P 2.75 1878 2 2023 C 10.00 1371 8 2023 P 3.50 1961 2 2023 C 10.00 1371 8 2023 P 3.50 1872 3 2023 C 12.00 1359 10 2023 P 3.50 1872 1 2024 C 8.00 1175 7 2023 P 3.50 1872 2 2024 C 8.00 1175 7 2023 P 3.50 1882 2 2024 C 8.00 1175 7 2023 P 4.00 1852 3 2024 C 8.00 1175 5 2023 P 4.00 1852 2 2024 C 8.00 1175 5 2023 P 3.50 1851 2 2024 C 8.00 1175 9 2023 P 3.50 1851 2 2024 C 8.00 1175 9 2023 P 3.50 1851 2 2024 C 8.00 1175 9 2023 P 3.50 1851 3 2024 C 8.00 1175 9 2023 P 3.50 1851 3 2024 C 8.00 1172 1 2023 P 3.50 1851 2 2023 P 4.00 1852 3 2023 P 5.00 1100 9 2023 P 3.00 1837 3 2023 P 4.00 1832							5	2023	Р	2.50	19831
3 2024 P 4.00 1465 7 2023 P 2.00 1975 1 2023 C 12.00 1431 9 2023 P 2.00 1975 2 2023 C 11.00 1413 5 2023 P 3.50 1961 2 2023 C 8.00 1377 4 2023 P 3.50 1961 2 2023 C 10.00 1371 8 2023 P 3.50 1872 3 2023 C 10.00 1371 8 2023 P 3.50 1872 1 2024 C 8.00 1175 7 2023 P 3.50 1872 1 2024 C 8.00 1175 7 2023 P 3.50 1852 2 2024 C 8.00 1175 5 2023 P 3.50 1852 2 2024 C 8.00 1175 5 2023 P 3.50 1852 3 2024 C 8.00 1175 5 2023 P 3.50 1852 2 2024 C 8.00 1175 9 2023 P 3.50 1851 2 2024 C 8.00 1175 9 2023 P 3.50 1851 2 2023 P 3.50 1851 3 2024 C 8.00 1172 1 2023 P 3.50 1851 2 2023 P 3.50 1851 3 2024 C 8.00 1172 1 2023 P 3.00 1837 3 2023 P 4.00 1832							6	2023	Р	2.00	19814
1       2023       C       12.00       1431       9       2023       P       2.00       1975         2       2023       C       11.00       1413       5       2023       P       2.00       1975         2       2023       C       8.00       1377       4       2023       P       2.75       1878         2       2023       C       10.00       1371       8       2023       P       3.50       1872         3       2023       C       12.00       1359       10       2023       P       3.50       1872         1       2024       C       8.00       1175       7       2023       P       3.50       1852         2       2024       C       8.00       1175       5       2023       P       3.50       1852         2       2024       C       8.00       1175       5       2023       P       4.00       1852         3       2024       C       8.00       1175       9       2023       P       3.50       1851         2       2023       P       5.00       1172       1       2023       P <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>4</td><td>2023</td><td>Р</td><td>4.00</td><td>19753</td></td<>							4	2023	Р	4.00	19753
2 2023 C 11.00 1413 5 2023 P 3.50 1961. 2 2023 C 8.00 1377 4 2023 P 2.75 1878 2 2023 C 10.00 1371 8 2023 P 3.50 1872 3 2023 C 12.00 1359 10 2023 P 3.50 1872 1 2024 C 8.00 1175 7 2023 P 3.50 1852 2 2024 C 8.00 1175 5 2023 P 3.50 1852 2 2024 C 8.00 1175 5 2023 P 4.00 1852 3 2024 C 8.00 1175 9 2023 P 3.50 1851 2 2023 P 5.00 1172 1 2023 P 3.50 1851 2 2023 P 5.00 1172 1 2023 P 3.00 1837 2 2023 P 5.00 1170 9 2023 P 4.00 1837 3 2023 P 4.00 1803 3 2023 P 4.20 1100 6 2023 P 4.00 1832 3 2023 P 4.00 1823 3 2023 P 5.25 1051 6 2023 P 4.00 1822 3 2023 P 4.00 1823 4 2023 P 4.00 1016 3 2023 P 5.00 1816							7	2023	Р	2.00	19750
2       2023       C       8.00       1377       4       2023       P       2.75       1878         2       2023       C       10.00       1371       8       2023       P       3.50       1872         3       2023       C       12.00       1359       10       2023       P       3.50       1872         1       2024       C       8.00       1175       7       2023       P       3.50       1852         2       2024       C       8.00       1175       5       2023       P       4.00       1852         3       2024       C       8.00       1175       9       2023       P       3.50       1851         2       2023       P       5.00       1172       1       2023       P       3.00       1837         2       2023       P       5.00       1100       9       2023       P       4.00       1837         2       2023       P       4.20       1100       6       2023       P       4.00       1822         3       2023       P       4.20       1100       6       2023       P       4								2023		2.00	19738
2 2023 C 10.00 1371 8 2023 P 3.50 1872; 3 2023 C 12.00 1359 10 2023 P 3.50 1872; 1 2024 C 8.00 1175 7 2023 P 3.50 1852; 2 2024 C 8.00 1175 5 2023 P 4.00 1852; 3 2024 C 8.00 1175 9 2023 P 3.50 1851; 2 2023 P 5.00 1172 1 2023 P 3.00 1851; 2 2023 P 5.00 1172 1 2023 P 3.00 1837; 2 2023 P 5.00 1170 9 2023 P 4.00 1832; 3 2023 P 4.20 1100 6 2023 P 2.50 1823; 1 2023 P 5.25 1051 6 2023 P 2.50 1823; 3 2023 P 5.25 1051 6 2023 P 4.00 1822; 3 2023 P 3.50 1027 2 2023 C 8.00 1816; 4 2023 P 4.00 1016 3 2023 P 5.00 1803;							5	2023	Р	3.50	19614
3 2023 C 12.00 1359 10 2023 P 3.50 1872 1 2024 C 8.00 1175 7 2023 P 3.50 1852 2 2024 C 8.00 1175 5 2023 P 4.00 1852 3 2024 C 8.00 1175 9 2023 P 3.50 1851 2 2023 P 5.00 1172 1 2023 P 3.00 1851 2 2023 P 5.00 1172 1 2023 P 3.00 1837 2 2023 P 4.00 1832 3 2023 P 4.20 1100 6 2023 P 2.50 1823 1 2023 P 5.25 1051 6 2023 P 4.00 1822 3 2023 P 3.50 1027 2 2023 C 8.00 1816 4 2023 P 4.00 1016 3 2023 P 5.00 1803							4	2023		2.75	18780
1       2024       C       8.00       1175       7       2023       P       3.50       1852         2       2024       C       8.00       1175       5       2023       P       4.00       1852         3       2024       C       8.00       1175       9       2023       P       3.50       1851         2       2023       P       5.00       1172       1       2023       P       3.00       1837         2       2023       C       9.00       1100       9       2023       P       4.00       1832         3       2023       P       4.20       1100       6       2023       P       2.50       1823         1       2023       P       5.25       1051       6       2023       P       4.00       1822         3       2023       P       3.50       1027       2       2023       C       8.00       1816         4       2023       P       4.00       1016       3       2023       P       5.00       1803							8	2023	Р	3.50	18729
2 2024 C 8.00 1175 5 2023 P 4.00 1852: 3 2024 C 8.00 1175 9 2023 P 3.50 1851: 2 2023 P 5.00 1172 1 2023 P 3.00 1837: 2 2023 C 9.00 1100 9 2023 P 4.00 1832: 3 2023 P 4.20 1100 6 2023 P 2.50 1823 1 2023 P 5.25 1051 6 2023 P 4.00 1822: 3 2023 P 3.50 1027 2 2023 C 8.00 1816 4 2023 P 4.00 1016 3 2023 P 5.00 1803									-		18723
3 2024 C 8.00 1175 9 2023 P 3.50 1851 2 2023 P 5.00 1172 1 2023 P 3.00 1837 2 2023 C 9.00 1100 9 2023 P 4.00 1832 3 2023 P 4.20 1100 6 2023 P 2.50 1823 1 2023 P 5.25 1051 6 2023 P 4.00 1822 3 2023 P 3.50 1027 2 2023 C 8.00 1816 4 2023 P 4.00 1016 3 2023 P 5.00 1803								2023	-	3.50	18529
2 2023 P 5.00 1172 1 2023 P 3.00 1837 2 2023 C 9.00 1100 9 2023 P 4.00 1832 3 2023 P 4.20 1100 6 2023 P 2.50 1823 1 2023 P 5.25 1051 6 2023 P 4.00 1822 3 2023 P 3.50 1027 2 2023 C 8.00 1816 4 2023 P 4.00 1016 3 2023 P 5.00 1803								2023		4.00	18524
2 2023 C 9.00 1100 9 2023 P 4.00 1832 3 2023 P 4.20 1100 6 2023 P 2.50 1823 1 2023 P 5.25 1051 6 2023 P 4.00 1822 3 2023 P 3.50 1027 2 2023 C 8.00 1816 4 2023 P 4.00 1016 3 2023 P 5.00 1803							9	2023	Р	3.50	18519
3 2023 P 4.20 1100 6 2023 P 2.50 1823 1 2023 P 5.25 1051 6 2023 P 4.00 1822 3 2023 P 3.50 1027 2 2023 C 8.00 1816 4 2023 P 4.00 1016 3 2023 P 5.00 1803							1	2023	Р	3.00	18375
1 2023 P 5.25 1051 6 2023 P 4.00 1822 3 2023 P 3.50 1027 2 2023 C 8.00 1816 4 2023 P 4.00 1016 3 2023 P 5.00 1803								2023		4.00	18329
3 2023 P 3.50 1027 2 2023 C 8.00 1816 4 2023 P 4.00 1016 3 2023 P 5.00 1803								2023		2.50	18231
4 2023 P 4.00 1016 3 2023 P 5.00 1803									-		18226
0 2020 1 0.00 1000										8.00	18160
2 2022 D 200 006								2023		5.00	18037
3 2020 1 2.00 1700	3	2023	Р	3.00	996		9	2023	Р	2.50	17895
											17783
										4.50	17585
6 2023 P 3.00 905 1 2023 C 15 1720 Source: CME, ICE	6	2023	Р	3.00	905		1	2023	<b>C</b> Source	: CME, ICE	17207



## Nat Gas Futures Open Interest

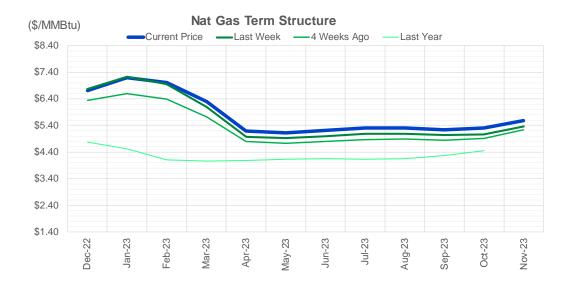
CME and ICE Combined

CME Henry Hub Futures (10,000 MMBtu)  ICE Henry Hub Futures Contract Equivalent (10,000 MM											
CME Henry H				ICE Henry I			No. 1				
	Current	Prior	Daily Change		Current	Prior	Daily Change				
JAN 23	157882	930	156952	JAN 23	79725	79648	77				
FEB 23	66792	161775	-94983	FEB 23	69207	78170	-8963				
MAR 23	118035	66777	51258	MAR 23	69978	68944	1035				
APR 23	106124	115970	-9846	APR 23	60180	68424	-8244				
MAY 23	93651	104885	-11234	MAY 23	60806	59208	1598				
JUN 23	28355	93400	-65045	JUN 23	51690	59957	-8267				
JUL 23	31064	28072	2992	JUL 23	51887	51489	398				
AUG 23	28702	30372	-1670	AUG 23	50449	51867	-1419				
SEP 23	34922	28502	6420	SEP 23	49105	50378	-1273				
OCT 23	47969	34439	13530	OCT 23	64419	48810	15609				
NOV 23	19733	48355	-28622	NOV 23	48817	64154	-15337				
DEC 23	30138	19471	10667	DEC 23	45555	48789	-3235				
JAN 24	38137	30122	8015	JAN 24	48464	45293	3171				
FEB 24	13499	37608	-24109	FEB 24	31673	47913	-16241				
MAR 24	24692	12999	11693	MAR 24	38998	31404	7594				
APR 24	23929	24813	-884	APR 24	33988	38820	-4832				
MAY 24	10740	24034	-13294	MAY 24	32010	33497	-1488				
JUN 24	3604	10492	-6888	JUN 24	28386	31727	-3341				
JUL 24	5150	3584	1566	JUL 24	27911	28212	-301				
AUG 24	4489	4905	-416	AUG 24	27033	27656	-623				
SEP 24	3882	4454	-572	SEP 24	26712	26809	-97				
OCT 24	10087	3805	6282	OCT 24	30917	26509	4408				
NOV 24	4980	10086	-5106	NOV 24	27639	30699	-3061				
DEC 24	8726	4976	3750	DEC 24	31620	27536	4084				
JAN 25	18946	8721	10225	JAN 25	25770	31507	-5737				
FEB 25	1894	18668	-16774	FEB 25	15908	25732	-9825				
MAR 25	6225	1880	4345	MAR 25	17631	15858	1773				
APR 25	6831	6224	607	APR 25	17166	17622	-456				
MAY 25	2815	6856	-4041	MAY 25	16180	17104	-925				
JUN 25	2676	2815	-139	JUN 25	15027	16087	-1060				

Source: CME, ICE







	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23
<b>Current Price</b>	\$6.712	\$7.196	\$7.018	\$6.299	\$5.197	\$5.131	\$5.212	\$5.298	\$5.304	\$5.248	\$5.309	\$5.584
Last Week	\$6.776	\$7.223	\$6.962	\$6.111	\$4.966	\$4.917	\$4.995	\$5.077	\$5.089	\$5.032	\$5.076	\$5.369
vs. Last Week	-\$0.064	-\$0.027	\$0.056	\$0.188	\$0.231	\$0.214	\$0.217	\$0.221	\$0.215	\$0.216	\$0.233	\$0.215
4 Weeks Ago	\$6.355	\$6.607	\$6.379	\$5.717	\$4.793	\$4.728	\$4.795	\$4.865	\$4.883	\$4.843	\$4.907	\$5.249
vs. 4 Weeks Ago	\$0.357	\$0.589	\$0.639	\$0.582	\$0.404	\$0.403	\$0.417	\$0.433	\$0.421	\$0.405	\$0.402	\$0.335
Last Year	\$4.854	\$4.768	\$4.521	\$4.106	\$4.064	\$4.095	\$4.137	\$4.144	\$4.126	\$4.165	\$4.261	\$4.444
vs. Last Year	\$1.858	\$2.428	\$2.497	\$2.193	\$1.133	\$1.036	\$1.075	\$1.154	\$1.178	\$1.083	\$1.048	\$1.140

	Units	Cash Settled	Prompt Settle	Cash to
A OT O'				Prompt
AGT Citygate	\$/MMBtu	5.90	22.83	16.93
TETCO M3	\$/MMBtu	5.56	9.57	4.01
FGT Zone 3	\$/MMBtu	5.81	7.28	1.47
Zone 6 NY	\$/MMBtu	5.81	10.04	4.23
Chicago Citygate	\$/MMBtu	5.59	7.01	1.42
Michcon	\$/MMBtu	5.56	6.44	0.88
Columbia TCO Pool	\$/MMBtu	5.17	6.00	0.84
Ventura	\$/MMBtu	5.44	7.65	2.21
Rockies/Opal	\$/MMBtu	12.14	6.94	-5.19
El Paso Permian Basin	\$/MMBtu	5.38	5.17	-0.21
Socal Citygate	\$/MMBtu	11.66	9.56	-2.10
Malin	\$/MMBtu	13.45	8.96	-4.50
Houston Ship Channel	\$/MMBtu	5.44	6.13	0.68
Henry Hub Cash	\$/MMBtu	6.00	6.26	0.26
AECO Cash	C\$/GJ	5.15	5.13	-0.02
Station2 Cash	C\$/GJ	3.74	10.14	6.40
Dawn Cash	C\$/GJ	5.67	6.65	0.98

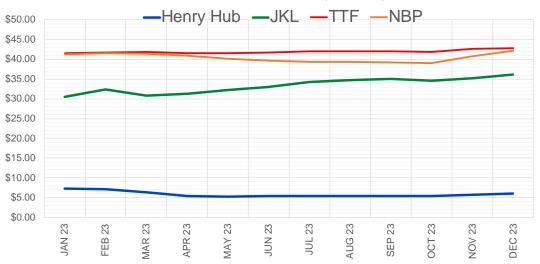
Source: CME, Bloomberg

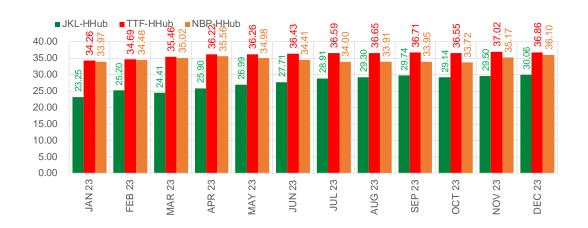


				vs. 4 Weeks	
	Units	<b>Current Price</b>	vs. Last Week		vs. Last Year
NatGas Jul21/Oct21	\$/MMBtu	2.224	<b>0.000</b>	0.000	<b>0.000</b>
NatGas Oct21/Nov21	\$/MMBtu	0.361	0.000	<b>0.000</b>	<b>0.000</b>
NatGas Oct21/Jan22	\$/MMBtu	-1.817	<b>0.000</b>	<b>0.000</b>	<b>▼</b> -0.543
NatGas Apr22/Oct22	\$/MMBtu	1.532	<b>0.000</b>	<b>0.000</b>	<b>1.454</b>
WTI Crude	\$/Bbl	78.20	<b>-</b> 2.750	<b>-</b> 10.170	<b>12.020</b>
Brent Crude	\$/Bbl	83.03	<b>-</b> 5.330	<b>▼</b> -11.620	<b>12.460</b>
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18	<b>0.000</b>	0.000	<b>0.000</b>
Heating Oil	cents/Gallon	329.59	<b>-17.540</b>	<b>▼</b> -32.520	<b>123.210</b>
Propane, Mt. Bel	cents/Gallon	0.85	-0.008	<b>▼</b> -0.026	<b>-</b> 0.408
Ethane, Mt. Bel	cents/Gallon	0.40	<b>0.000</b>	<b>0.020</b>	<b>a</b> 0.001
Coal, PRB	\$/MTon	12.30	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
Coal, PRB	\$/MMBtu	0.70			
Coal, ILB	\$/MTon	31.05	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
Coal, ILB	\$/MMBtu	1.32			





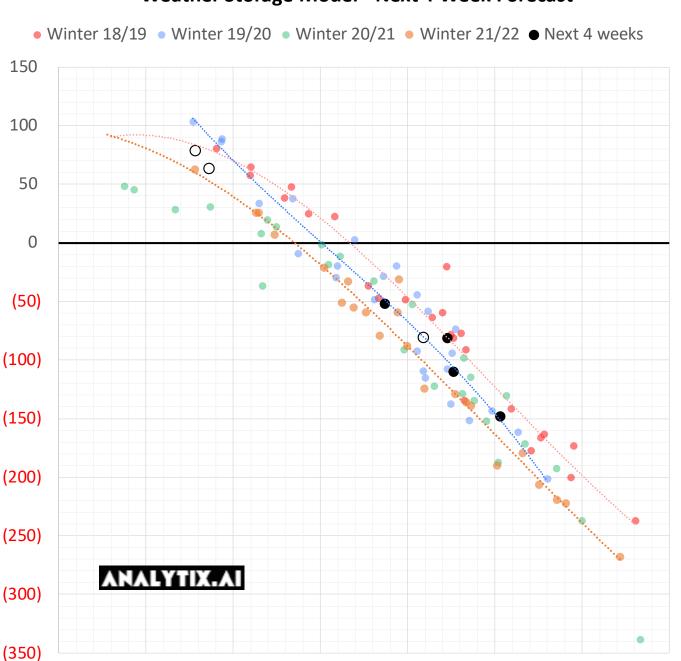




	JAN 23	FEB 23	MAR 23	APR 23	MAY 23	JUN 23	JUL 23	AUG 23	SEP 23	OCT 23	NOV 23	<b>DEC 23</b>
Henry Hub	\$7.255	\$7.121	\$6.369	\$5.351	\$5.260	\$5.340	\$5.413	\$5.411	\$5.364	\$5.428	\$5.686	\$6.052
JKL	\$30.505	\$32.320	\$30.780	\$31.250	\$32.245	\$33.045	\$34.320	\$34.710	\$35.100	\$34.570	\$35.190	\$36.110
JKL-HHub	\$23.250	\$25.199	\$24.411	\$25.899	\$26.985	\$27.705	\$28.907	\$29.299	\$29.736	\$29.142	\$29.504	\$30.058
TTF	\$41.513	\$41.813	\$41.833	\$41.569	\$41.521	\$41.768	\$42.002	\$42.057	\$42.072	\$41.980	\$42.708	\$42.913
TTF-HHub	\$34.258	\$34.692	\$35.464	\$36.218	\$36.261	\$36.428	\$36.589	\$36.646	\$36.708	\$36.552	\$37.022	\$36.861
NBP	\$41.229	\$41.603	\$41.391	\$40.909	\$40.240	\$39.753	\$39.417	\$39.317	\$39.310	\$39.146	\$40.856	\$42.152
NBP-HHub	\$33.974	\$34.482	\$35.022	\$35.558	\$34.980	\$34.413	\$34.004	\$33.906	\$33.946	\$33.718	\$35.170	\$36.100



## Weather Storage Model - Next 4 Week Forecast



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