

2024-2025 IRP Technical Conference

Docket No. 24-057-04

April 23, 2024



**Dominion
Energy**[®]

2024-2025 IRP Schedule

February 15, 2024

- Review IRP Standards and Guidelines
- Review 2023 PSC Order regarding IRP
- Pricing Update/Under-collection
- Supply Sourcing – Volumes and Locations

April 23, 2024

- Heating Season Review (LNG)
- Gas Supply Hedging
- IRP Project Detail Discussion

July 8, 2024

- Final Presentation

March 19, 2024

- System Integrity
- Rural Expansion Update
- Transportation and Storage Planning
- Supply Modeling Update

May 1, 2024

- Long-Term Planning
- Wexpro Matters (Confidential)
- RFP Review (Confidential)

Heating Season Review

Will Schwarzenbach

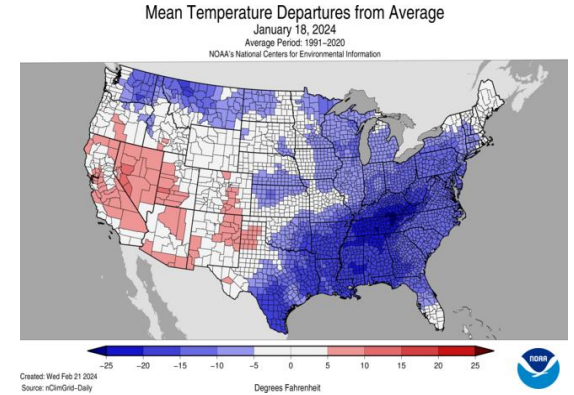
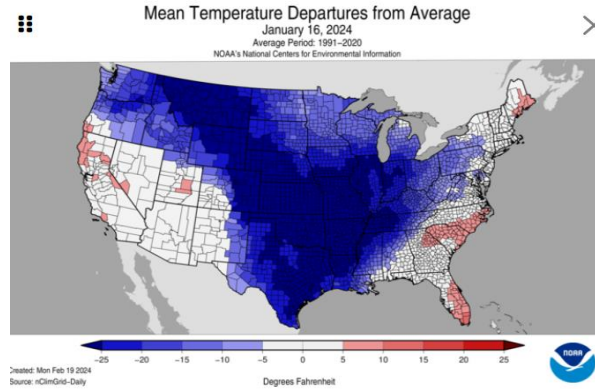
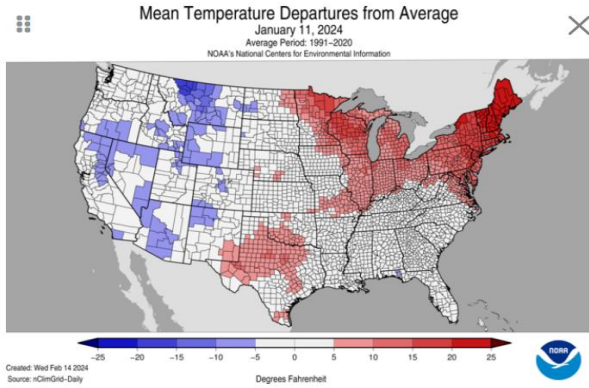
Heating Season Summary

Early season demand decreased after mid-January

Pricing started volatile – eased with reduced demand and building storage

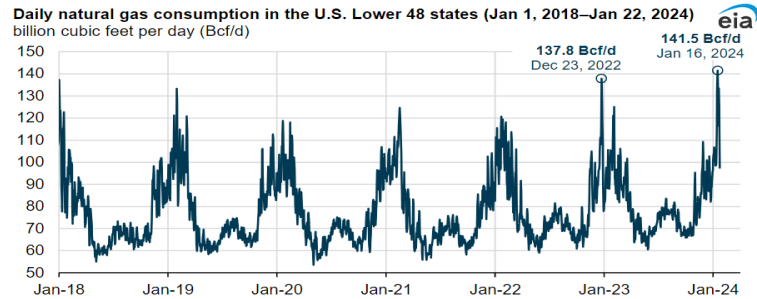
JANUARY 2024						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
31	1 New Year's Day	2	3	4	5	6
7	8	9	10	11	12	13
14	15 Martin Luther King Jr. Day	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

Demand



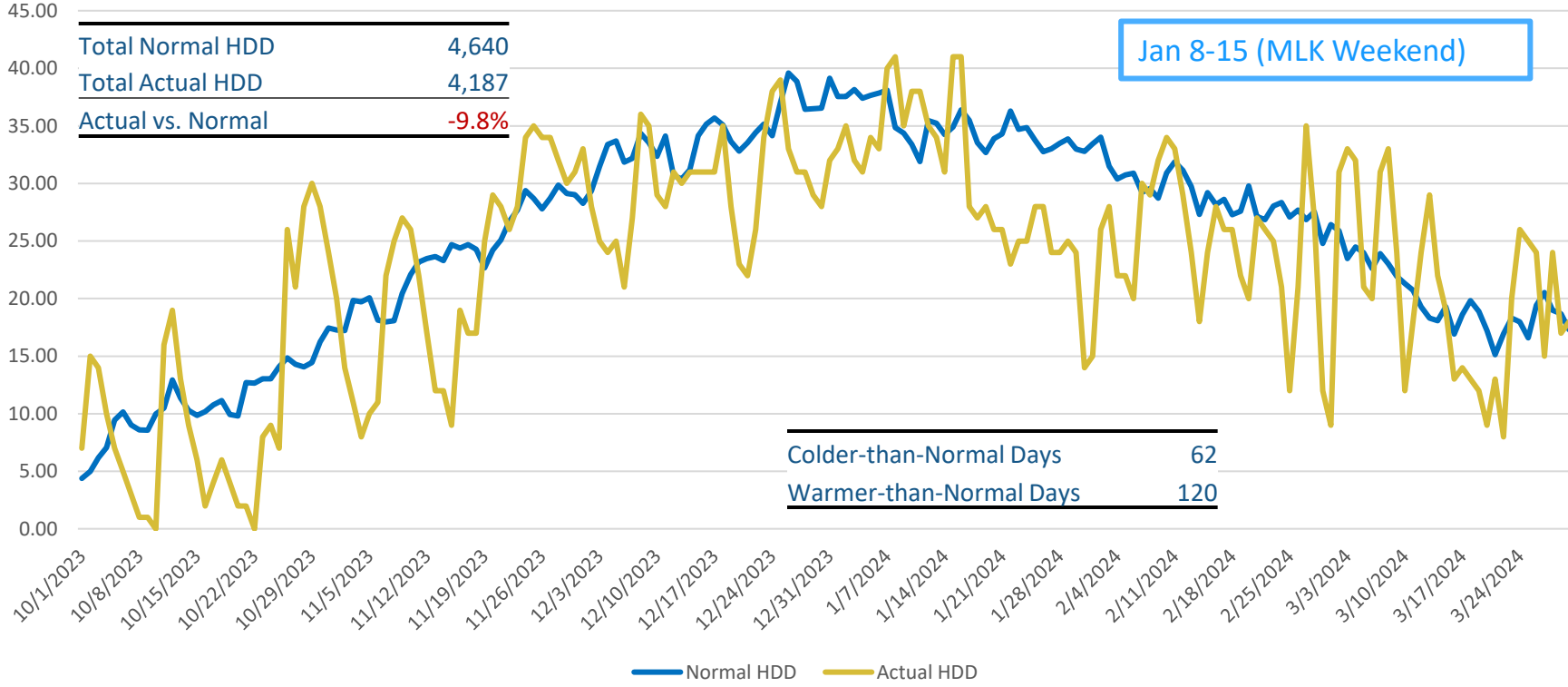
FEBRUARY 6, 2024

U.S. natural gas consumption established a new daily record in January 2024

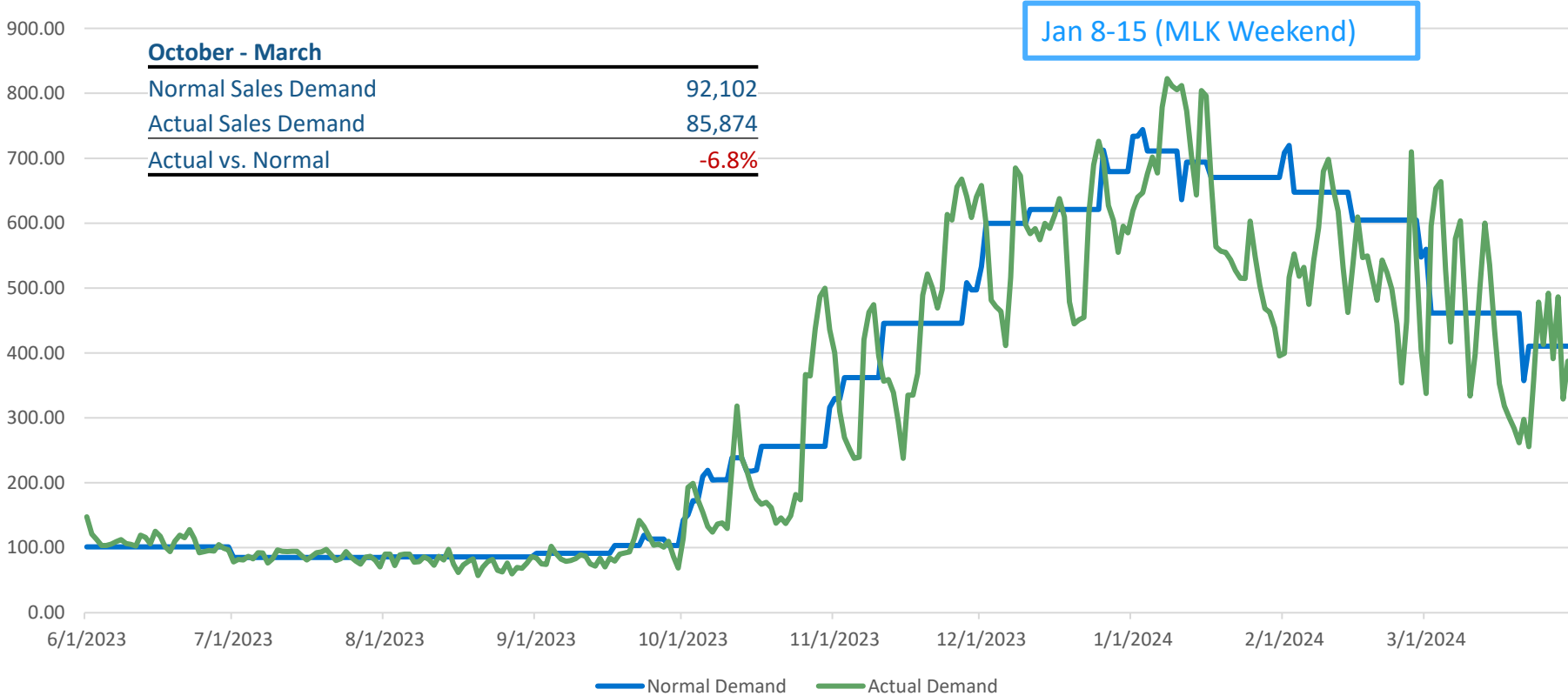


Data source: S&P Global Commodity Insights

Heating Degree Days – October through March



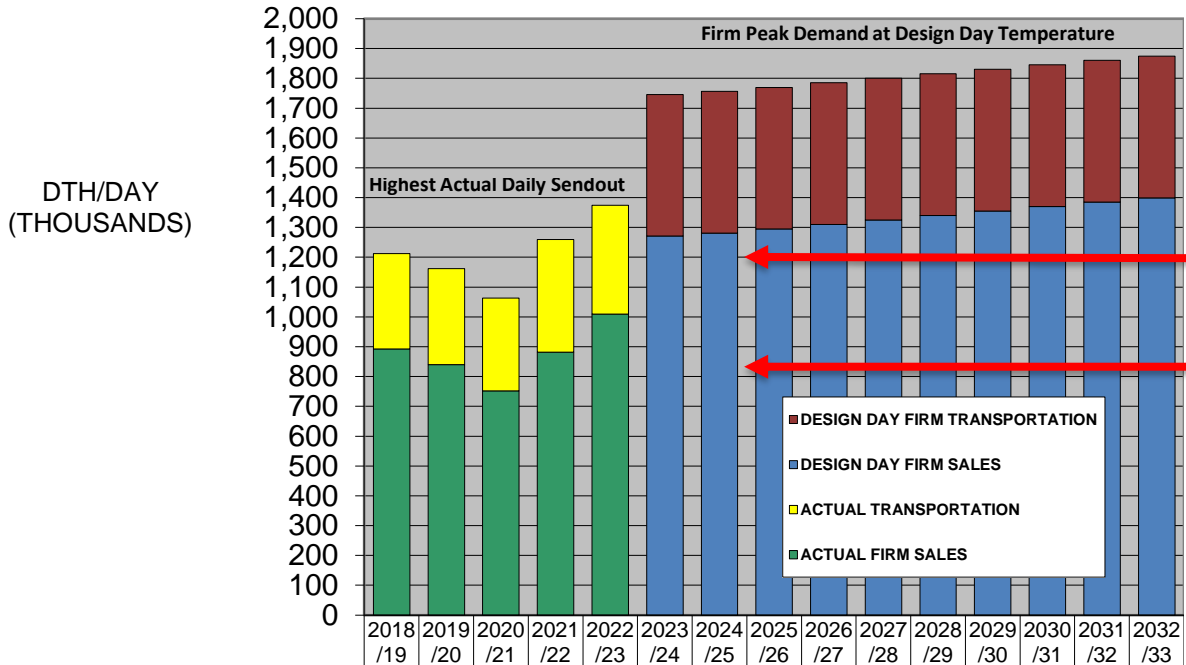
Demand



Historic Demand 2001-2024

Rank	Gas Day	Mean	Total System (Dth)	Total Sales (Dth)	Transport (Dth)
1	1/30/2023	15	1,376,990	1,011,085	365,905
2	1/31/2023	18	1,318,385	966,844	351,541
3	12/30/2014	12	1,280,215	1,003,869	276,346
4	2/23/2022	24	1,265,410	884,467	380,943
5	1/1/2022	17	1,246,748	890,092	356,656
6	1/6/2017	6	1,239,422	976,927	262,495
7	1/5/2017	13	1,238,534	920,364	318,170
8	1/2/2022	19	1,233,830	874,859	358,971
9	2/15/2023	27	1,233,133	898,880	334,253
10	2/2/2022	21	1,226,841	857,654	369,187
11	1/14/2013	7	1,225,730	993,326	232,404
12	1/2/2019	18	1,221,318	888,064	333,254
13	2/1/2023	25	1,218,453	873,219	345,234
14	1/1/2019	15	1,213,623	893,606	320,017
15	2/3/2022	22	1,209,649	841,690	367,959
16	1/22/2023	25	1,208,292	872,569	335,723
17	1/11/2024	25	1,203,877	840,231	363,646
18	1/10/2024	28	1,202,004	833,293	368,711
19	12/16/2022	23	1,196,272	845,660	350,612
20	2/22/2023	26	1,194,469	841,094	353,375
21	2/1/2011	13	1,194,133	997,135	196,998
22	12/9/2013	12	1,192,615	919,103	273,512
23	1/9/2024	29	1,187,307	830,627	356,680
24	1/29/2023	25	1,182,050	846,760	335,290
25	1/8/2024	22	1,181,556	833,733	347,823

Highest Sendout vs. Peak Design Day

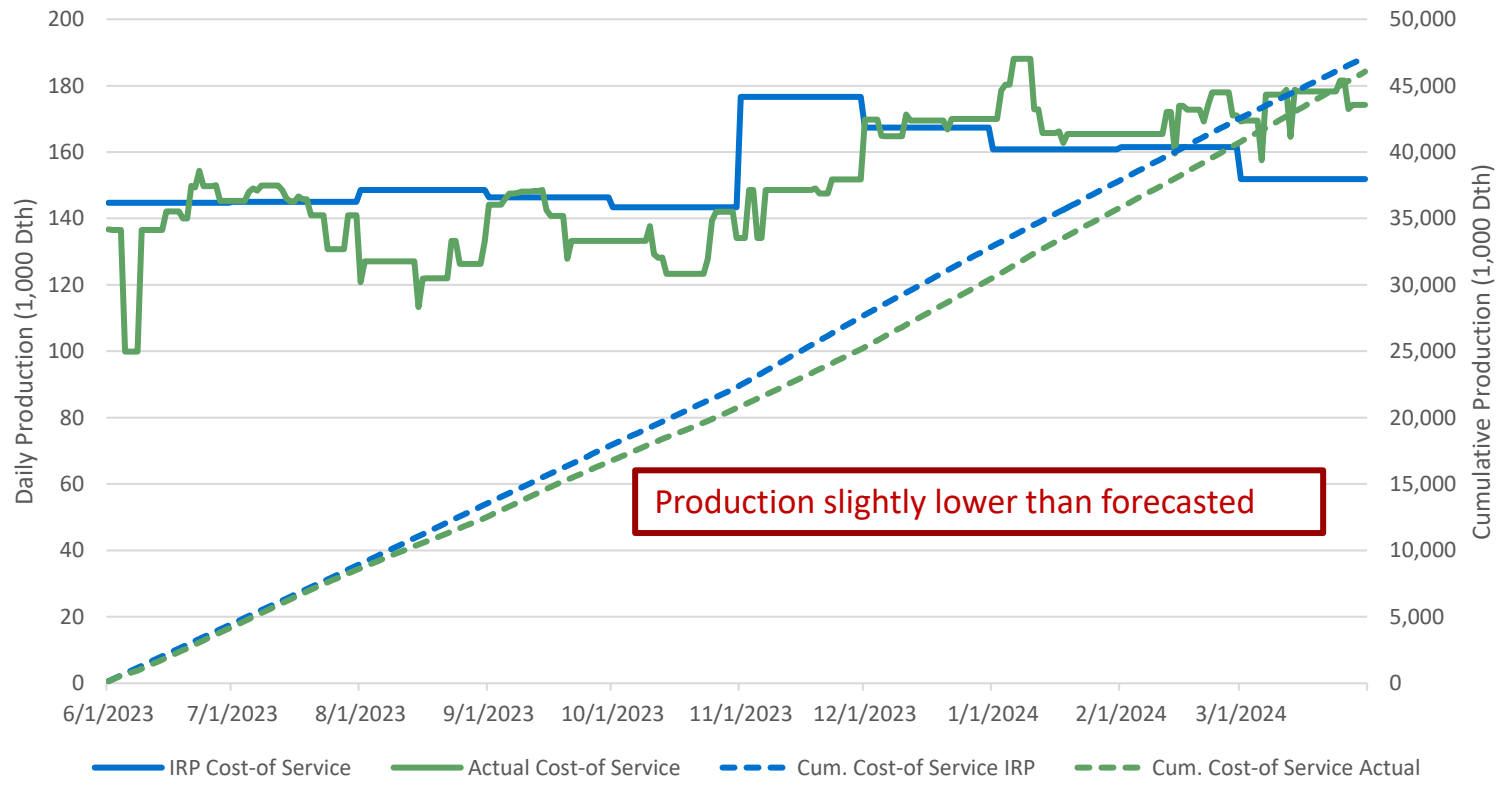


1/11/2024 - 25 Degree Mean

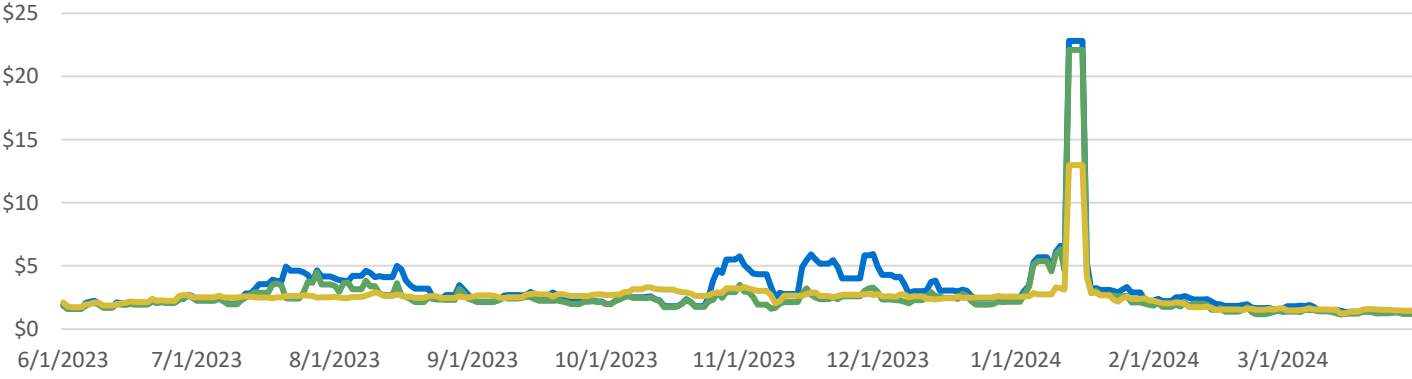
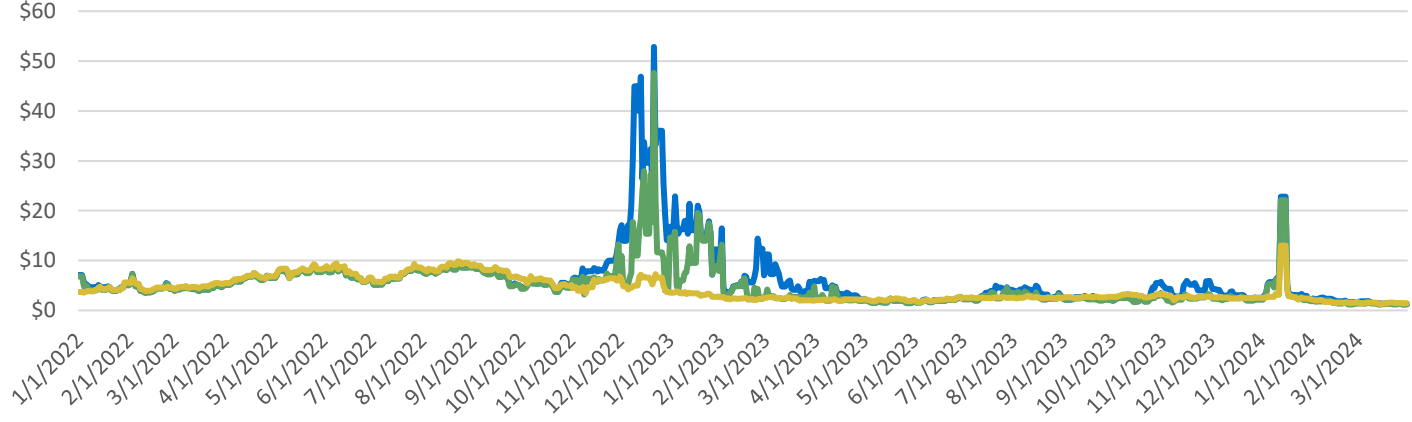
- 1,203,877 Dth – Total Sendout
 - 17th Highest
- 840,231 Dth – Sales Sendout
 - 66th Highest

	2018 /19	2019 /20	2020 /21	2021 /22	2022 /23	2023 /24	2024 /25	2025 /26	2026 /27	2027 /28	2028 /29	2029 /30	2030 /31	2031 /32	2032 /33
DESIGN DAY FIRM TRANSPORTATION						475	475	475	475	475	475	475	475	475	475
DESIGN DAY FIRM SALES						1271	1281	1295	1310	1325	1340	1355	1371	1385	1399
ACTUAL TRANSPORTATION	320	323	311	378	366										
ACTUAL FIRM SALES	892	840	752	881	1009										

Cost-of-Service Production

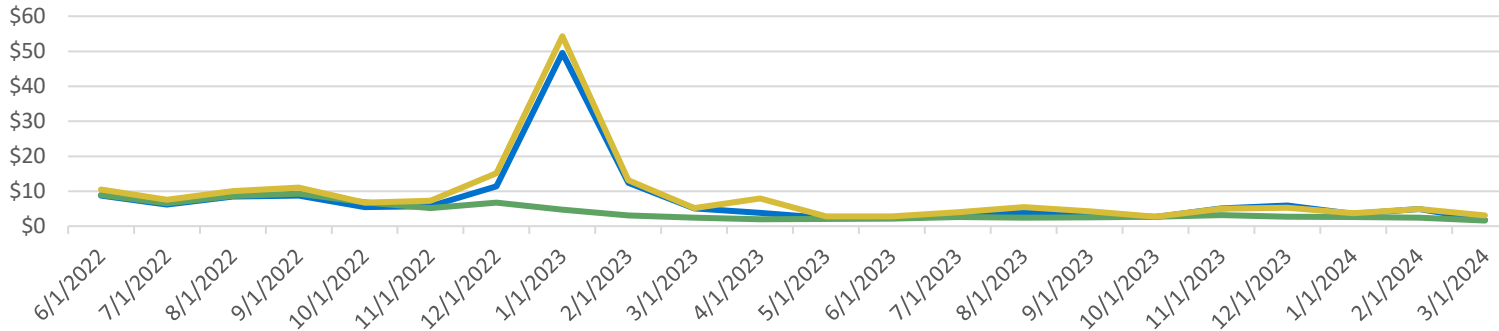
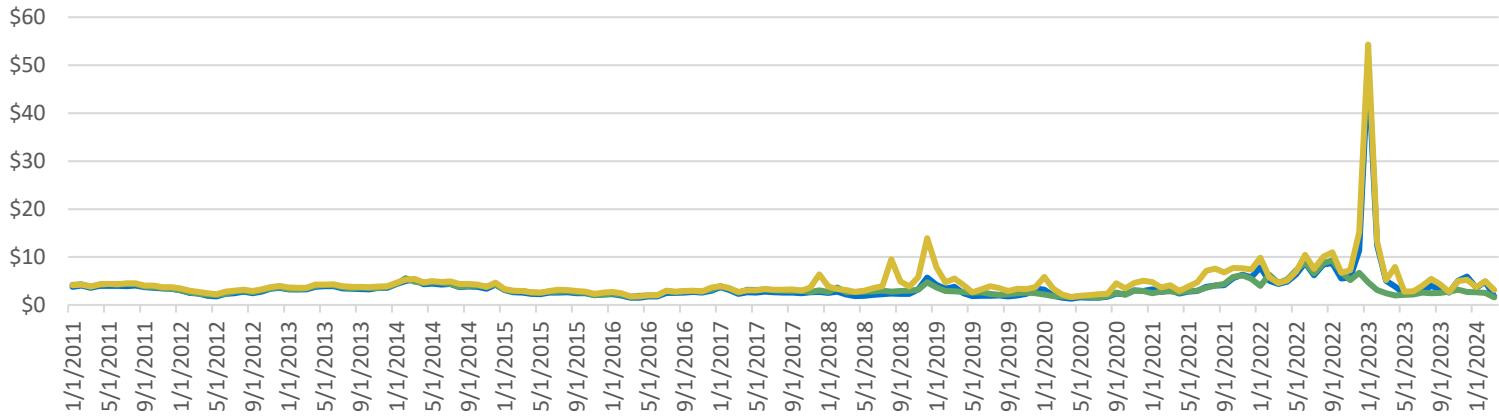


Daily Pricing



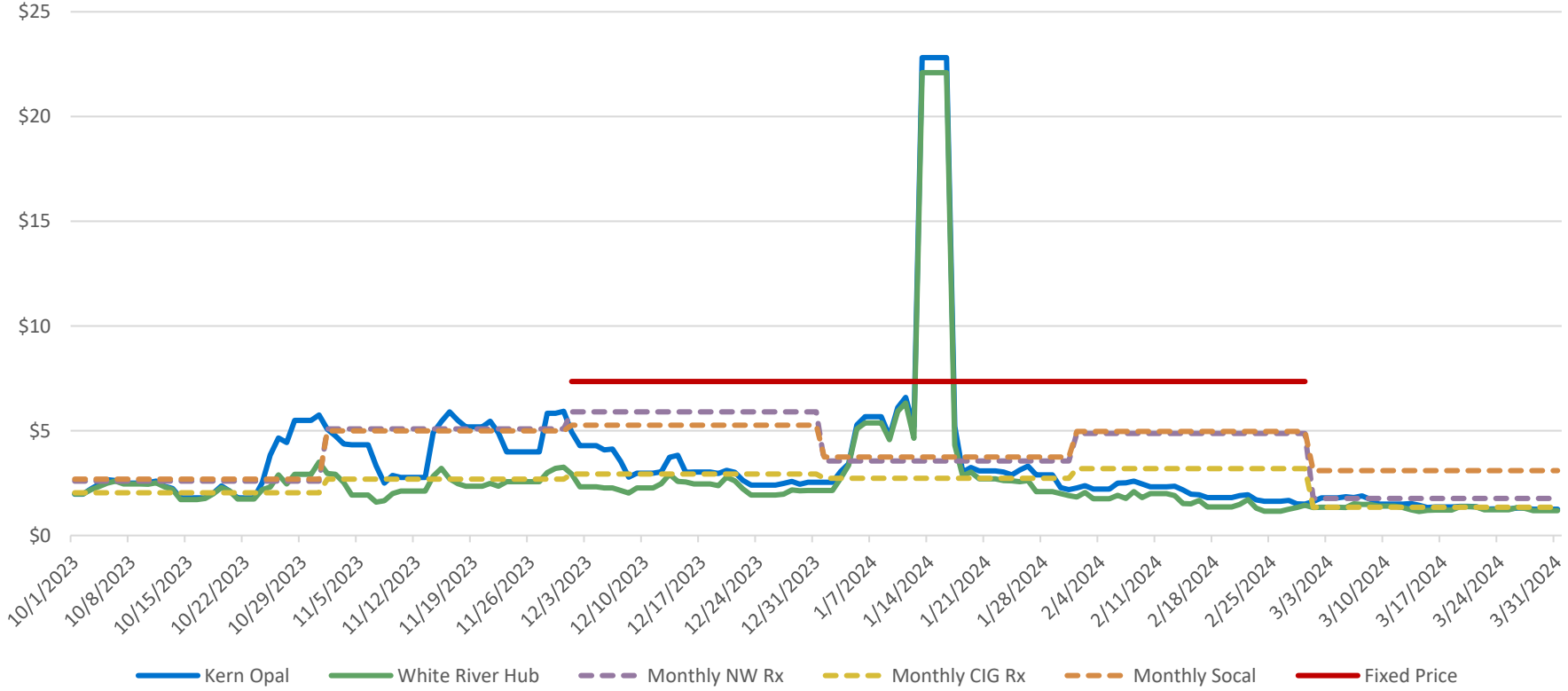
- Kern Opal
- White River Hub
- Henry Hub

Monthly Pricing



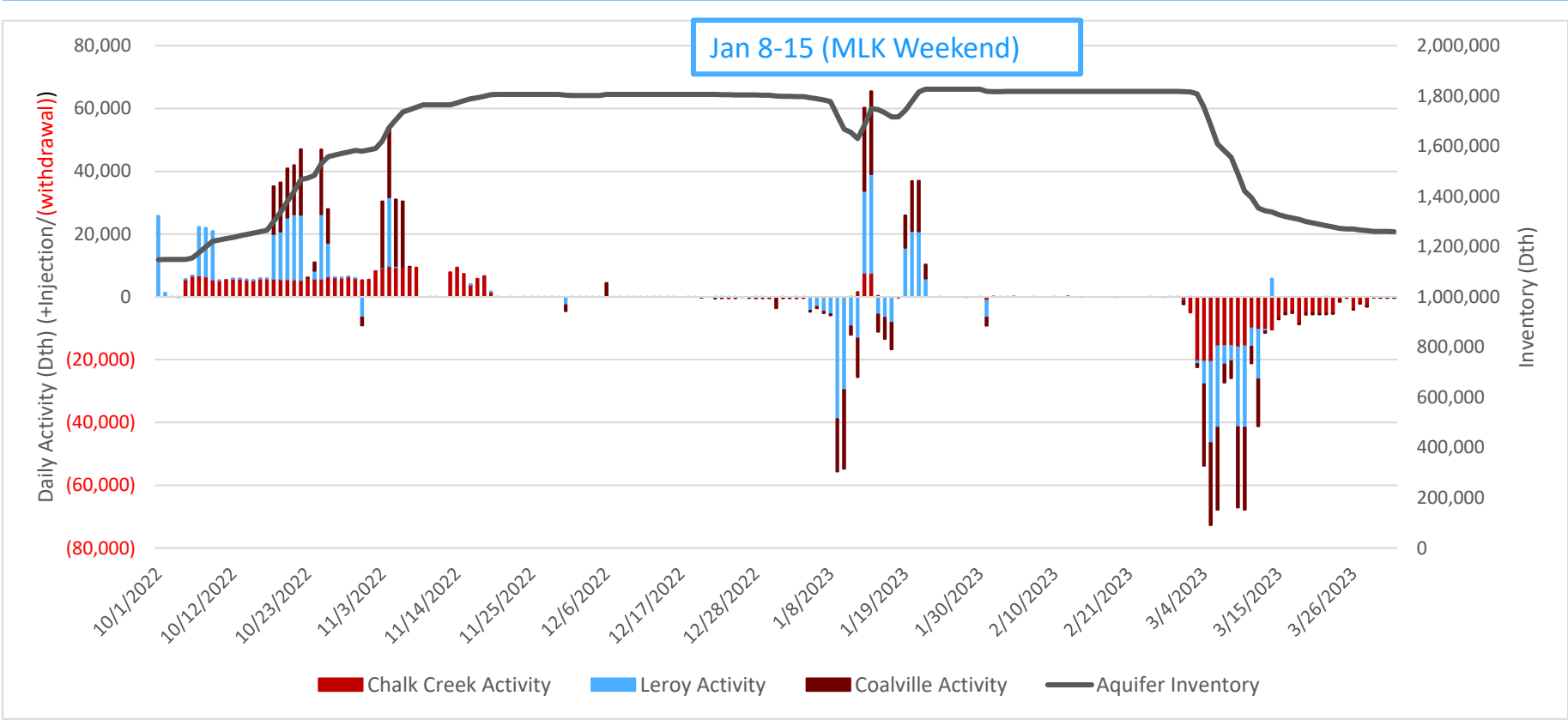
- Northwest, Rockies
- HENRY HUB
- SOCAL city-gate

Winter Pricing

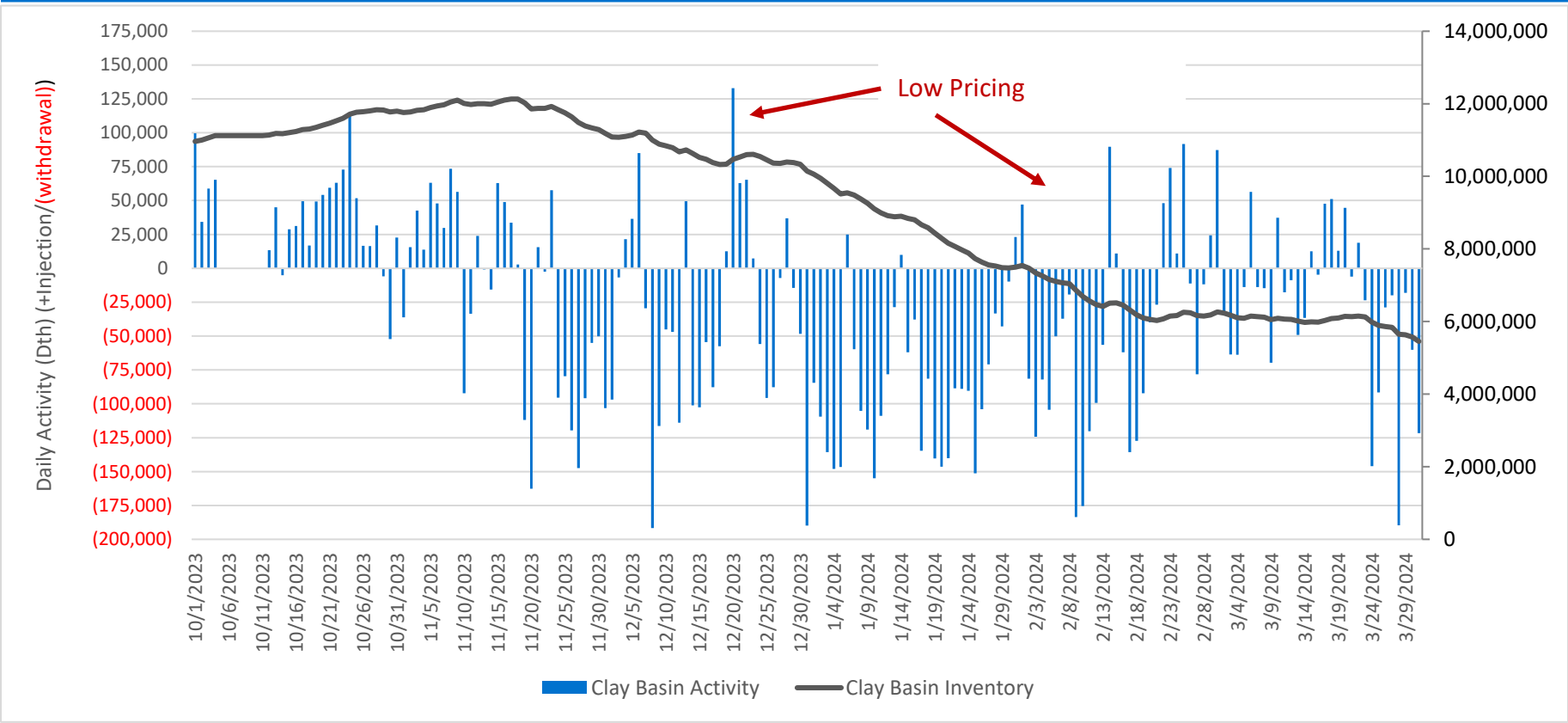


* Gas Daily - Kern Opal Midpoint

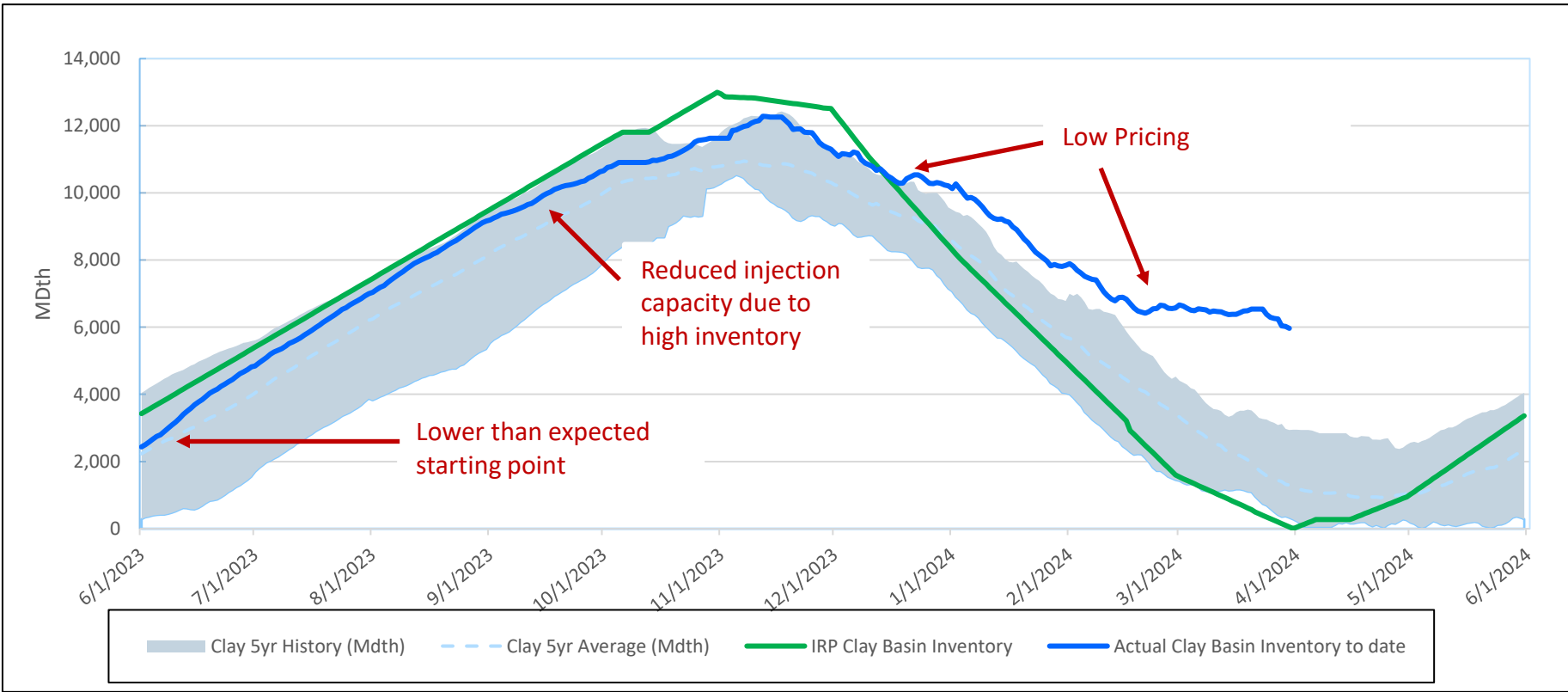
Aquifer Usage



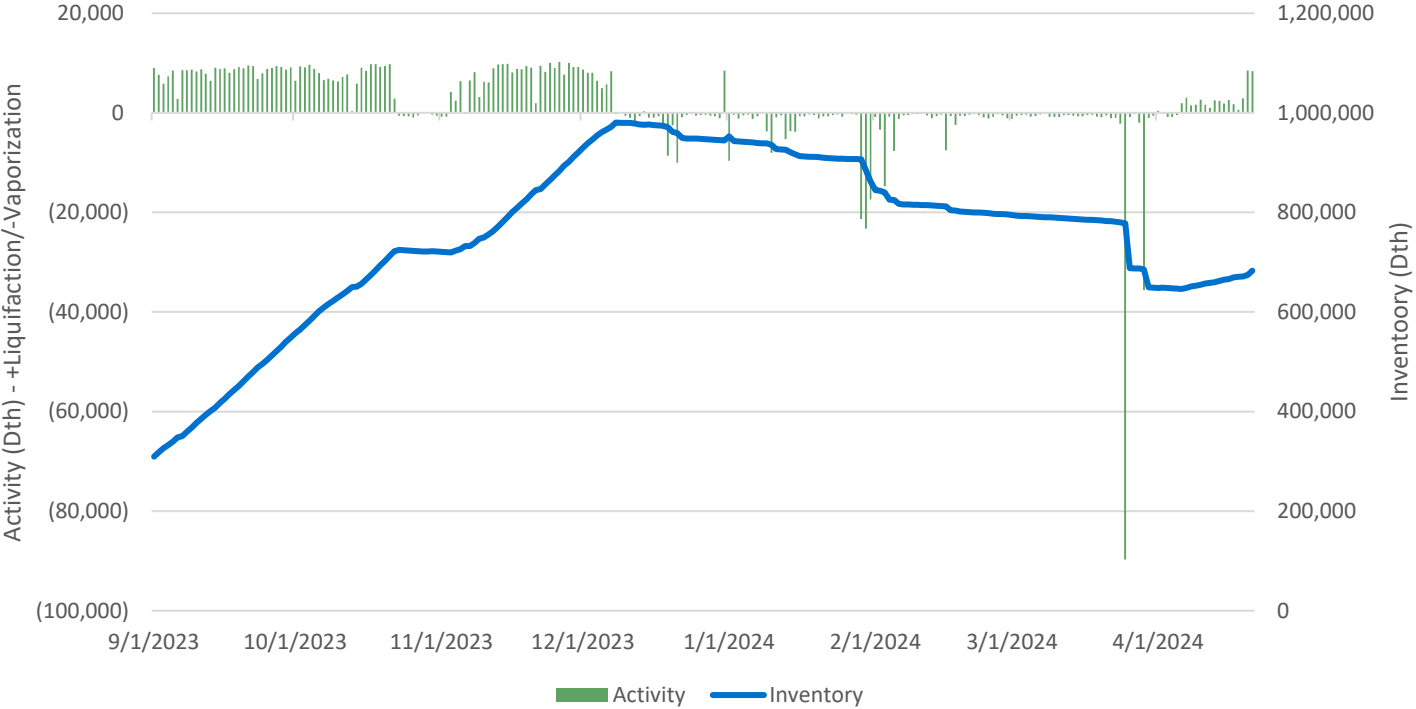
Clay Basin Usage



Clay Basin Inventory



Magna LNG



Magna LNG

2023 Summary

- Injected 13.4 million gallons (1,080 MMCF) LNG into storage
 - Attained peak level of 12,015,500 gallons (~75% full) on December 8
- Withdrew ~240 MMCF (BOG and Vaporization)
- LNG pumps rebuilt with design changes, installed and successfully tested
- LNG Vaporization system successfully tested



2024 Vaporization Testing

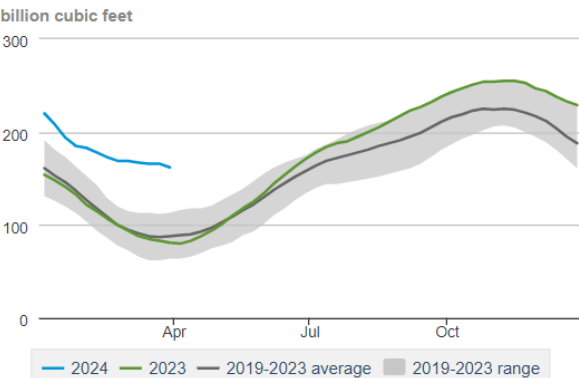
- Multiple tests conducted in January, February, and March
- Test durations ranged from 2 to 24 hours
- Vaporization system was tested through full range of capacity and achieved 100% sendout (150 MMCFD) for a planned, 6 continuous hours

2024 Plan

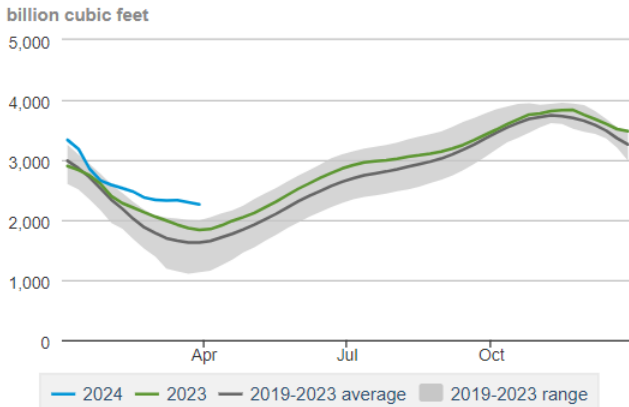
- Liquefaction resumed April 1
- As of April 22, tank level is 8,733,000 gallons (54% full)
- Three months needed to fill tank to 100%
- In the fall, further vaporization tests will be conducted to ensure heating season readiness

Storage Picture – Week Ending 3/29/24

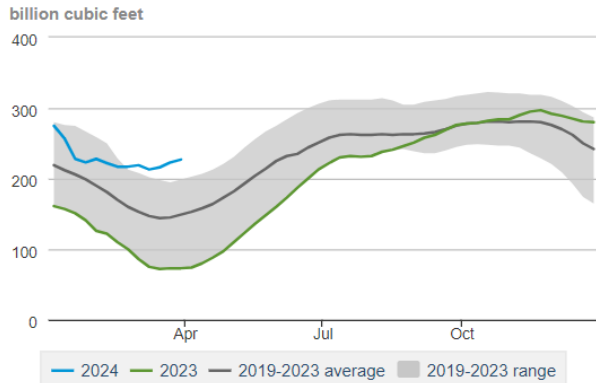
Mountain region weekly working gas in underground storage



Lower 48 weekly working gas in underground storage

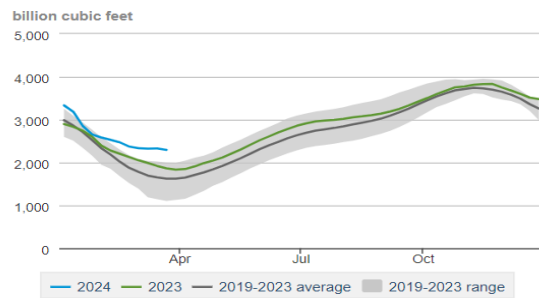
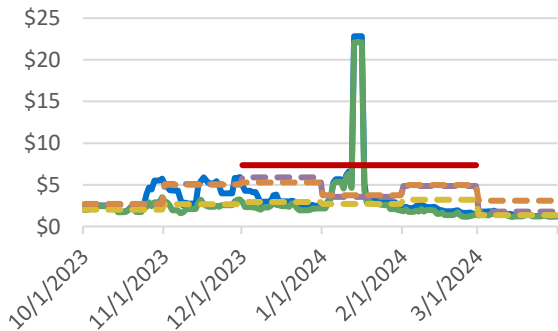


Pacific region weekly working gas in underground storage



Heating Season Takeaways

- 1. Early season volatility
- 2. Market “overreaction” Jan 13-16 weekend due to winter storm Heather
- 3. Prices declined after Jan 13-16 weekend due to lack of cold and increasing storage surplus
- 4. US is entering injection season with a strong storage position



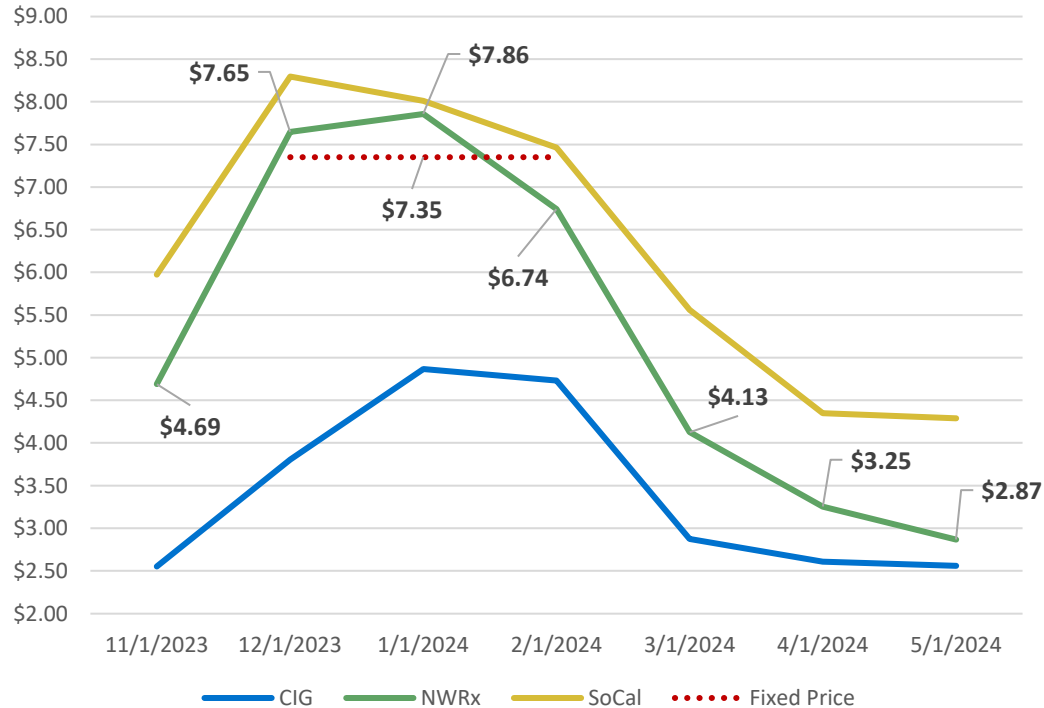
Gas Supply Hedging

Will Schwarzenbach

Considerations for 2023-2024 Supply Hedging

- **Continue to work to increase Wexpro cost-of-service production**
- **Explore additional storage contracts**
- **Reduce first-of-month (FOM) priced baseload exposure**
- **Diversify FOM index locations to avoid constraints**
- **Secure reliable supply at key locations**

Forward Curves – Going into Winter (10/2/2023)



In October, Average DEC-FEB pricing - **\$7.42**

Purchased 84,000 Dth of DEC-FEB fixed price baseload supply - **\$7.35**

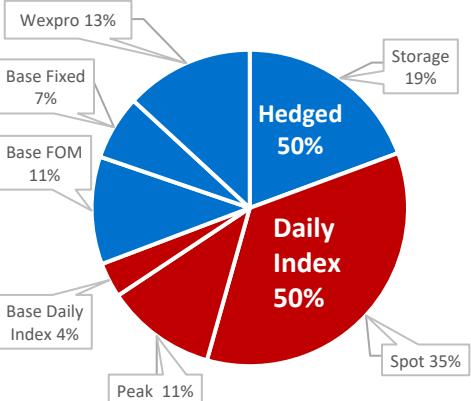
- Similar volume to 2022-2023
- Converted multi-year FOM baseload contracts to fixed price
- Procured fixed price contracts at key locations
- RFP – September 2023

Supply Exposure – 2022-2023 vs. 2023-2024

	22-23 Heating Season		23-24 Heating Season		Difference	Percent Difference	
Fixed Price	77,000	29%	84,000	31%	7,000	3%	
Daily Index	2,950	1%	45,450	17%	42,500	16%	
Monthly Index	174,000	65%	140,000	52%	(34,000)	-13%	
	NWRx	104,000	39%	55,000	20%	(49,000)	-18%
	Socal	70,000	26%	30,000	11%	(40,000)	-15%
	CIG	0	0%	55,000	20%	55,000	20%
Baseload Total	253,950		269,450		15,500	6%	
Peaking	310,000		143,542		166,458		
Total	563,950		412,992		181,958		

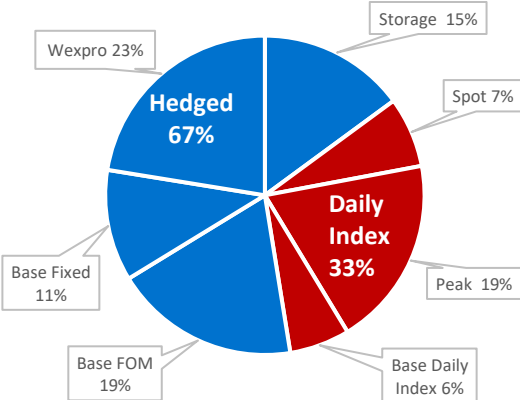
Supply Exposure – 2023-2024 (with 84,000 Dth fixed price)

Design Peak Day

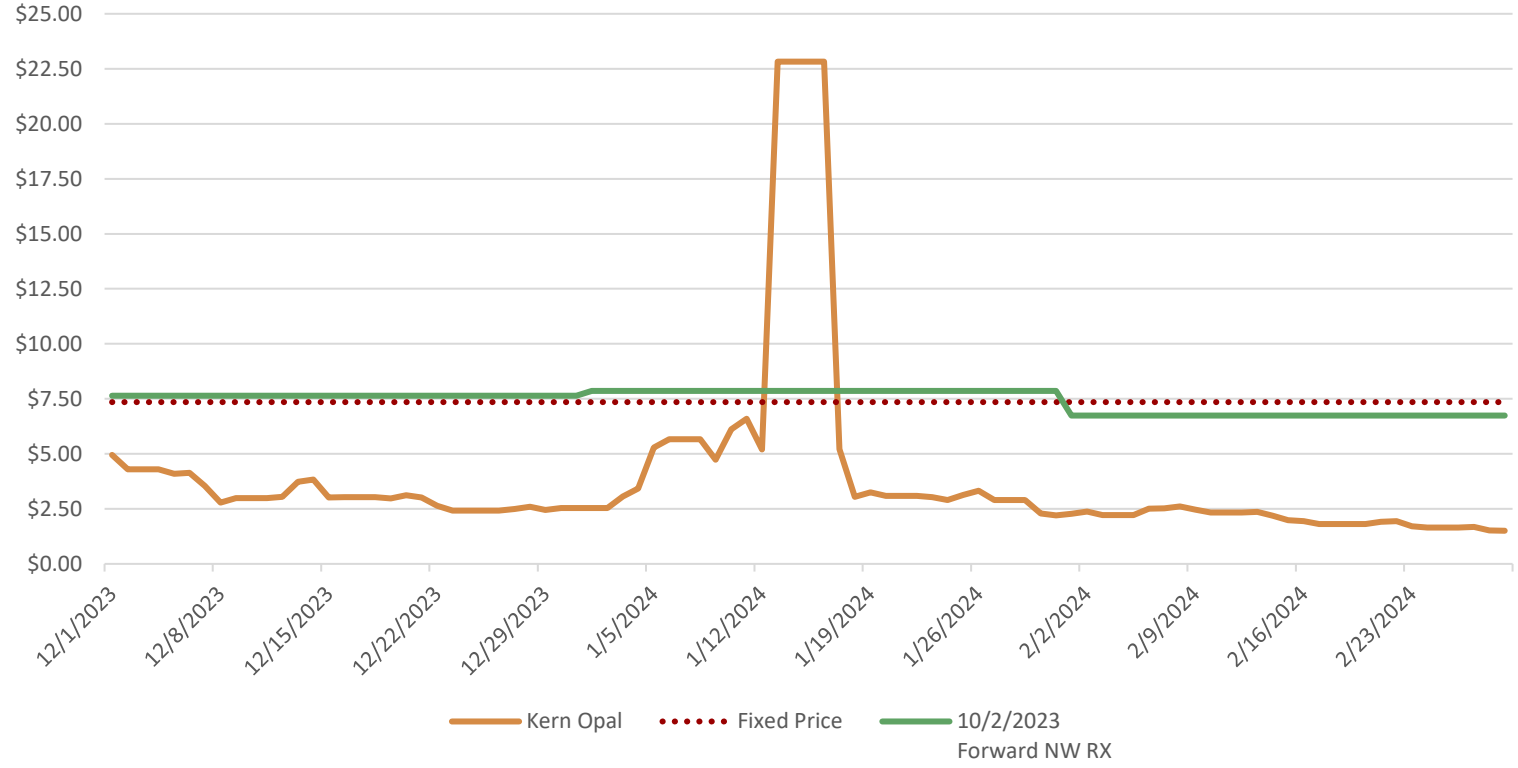


	Design Peak Day		IRP Normal Max Day	
Storage	246	19%	111	14.9%
Spot	453	36%	61	8.1%
Peak	144	11%	144	19.3%
Base Daily Index	38	3%	38	5.1%
Base FOM	140	11%	140	18.8%
Base Fixed	84	7%	84	11.3%
Wexpro	167	13%	167	22.4%
	1,271	100%	744	100%
Hedge	637	50%	502	67%
Daily Index	634	50%	242	33%

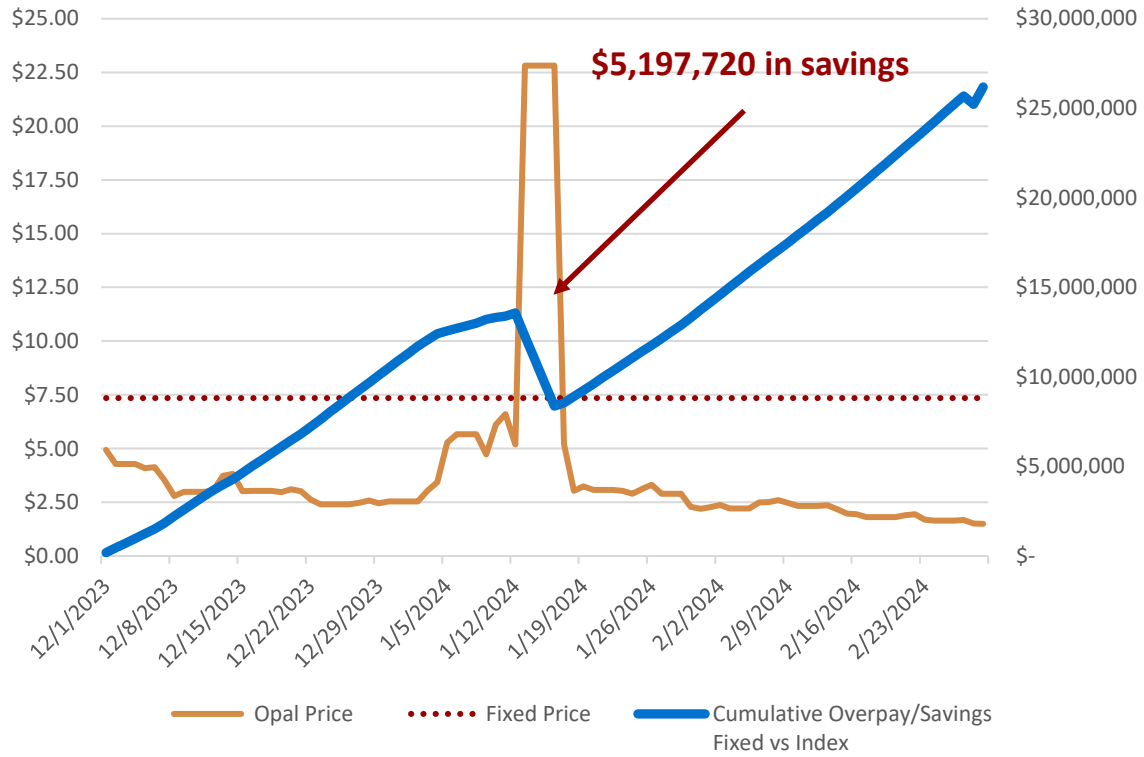
IRP Normal Max Day



Forward Curves –10/2/2023 Forwards vs. Actual Kern Index



Review - Fixed Price Baseload Contracts



Total cost of fixed price contracts
\$56,187,950

Total cost of index priced spot gas
\$29,520,960

Cost of fixed price hedge vs. index
\$26,666,990

Forward Curves – Going Forward (as of 4/19/2024)

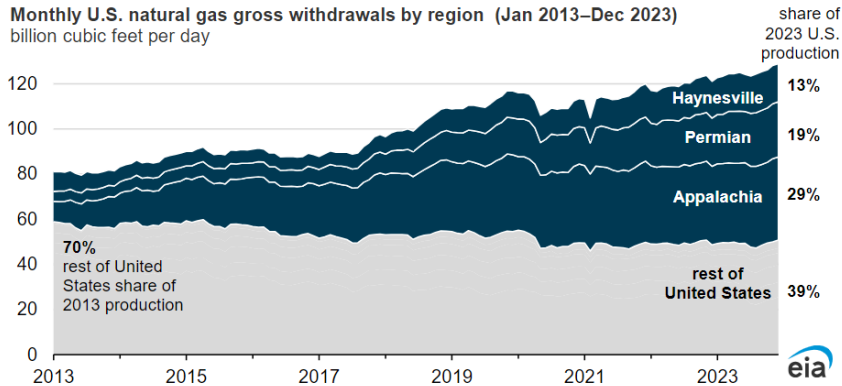


Production

Production had been increasing...

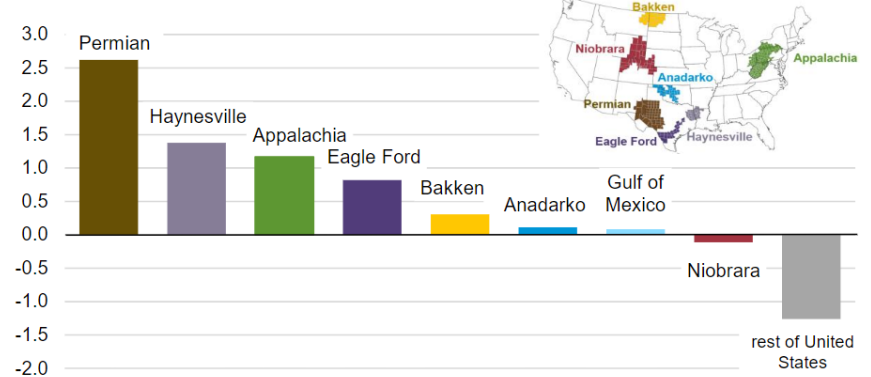
MARCH 27, 2024

U.S. natural gas production grew by 4% in 2023, similar to 2022



Data source: U.S. Energy Information Administration, *Drilling Productivity Report*, *Monthly Crude Oil and Natural Gas Production Report*, and *Natural Gas Monthly*

Annual change in U.S. natural gas production by region (2022–2023)
billion cubic feet per day

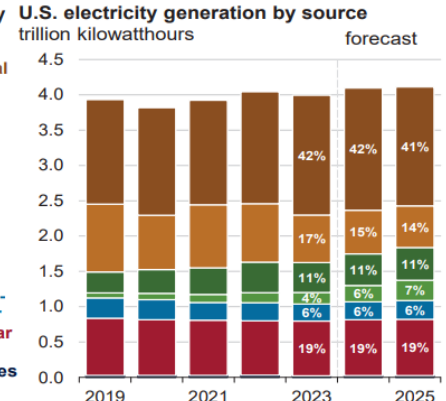
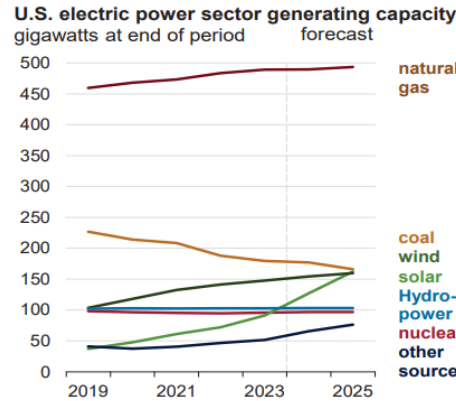
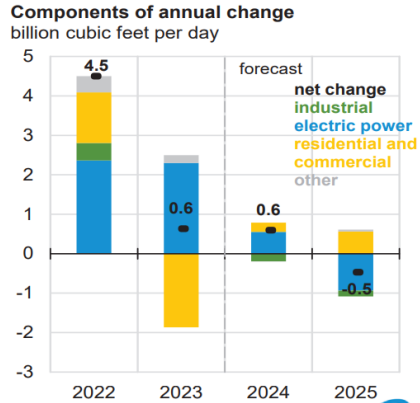
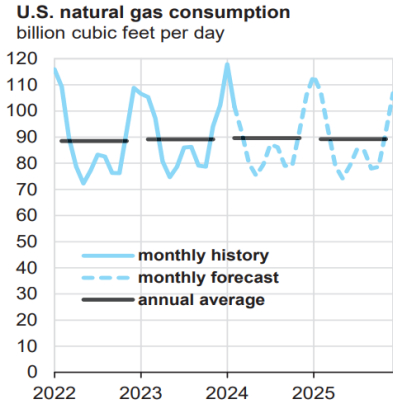


Data source: U.S. Energy Information Administration, *Drilling Productivity Report*, *Monthly Crude Oil and Natural Gas Production Report*, and *Natural Gas Monthly*

...but current low pricing is starting to show up in drilling plans/reduction of rigs

Demand

Residential demand is expected to continue to grow (weather dependent)



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2024

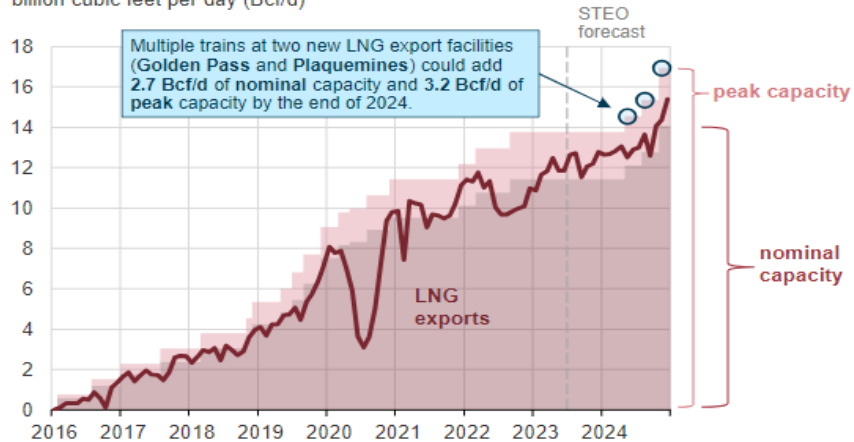


Natural Gas for power generation has grown to replace coal retirements

Demand - US LNG Exports

LNG export capacity from North America is likely to more than double through 2027

Monthly U.S. liquefied natural gas (LNG) gross exports and capacity (Jan 2016–Dec 2024)
billion cubic feet per day (Bcf/d)

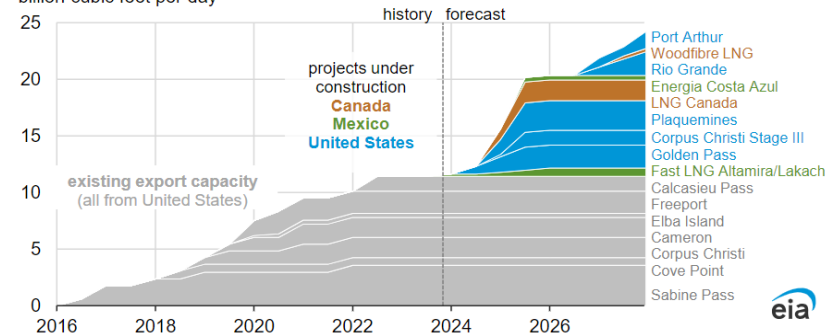


Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, July 2023
Data values: U.S. natural gas supply, consumption, and inventories and U.S. Liquefaction Capacity Workbook

NOVEMBER 13, 2023

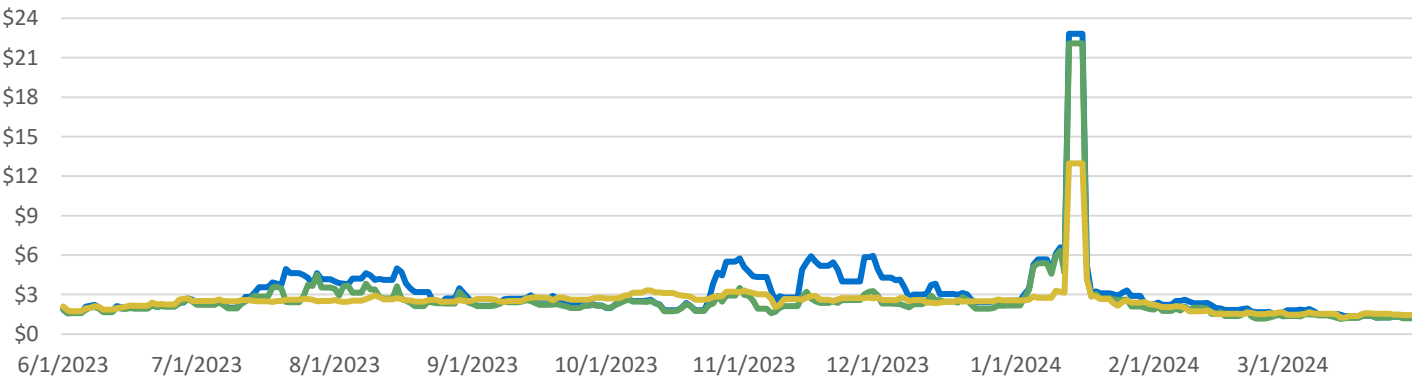
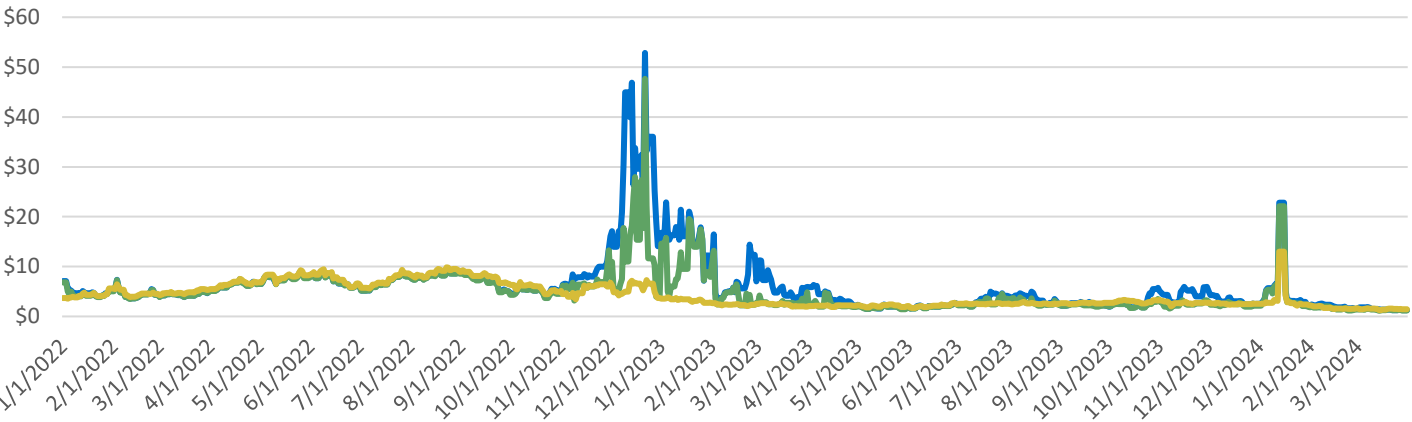
LNG export capacity from North America is likely to more than double through 2027

Annual North American liquefied natural gas export capacity by project (2016–2027)
billion cubic feet per day



Data source: U.S. Energy Information Administration, *Liquefaction Capacity File*, and trade press
Note: LNG=liquefied natural gas. Export capacity shown is project's baseload capacity. Online dates of LNG export projects under construction are estimates based on trade press.

Increased Volatility



- Kern Opal
- White River Hub
- Henry Hub

Hedging Options – Additional Storage



Spire Storage West

New Contract from 2023 Open Season
Facility expansion

Recent Open Season
Turned back capacity

Required delivery into Kern River (Painter Lateral) or Ruby Pipeline
We did not submit a bid

Future Ruby station could facilitate takeaway capacity from Spire facilities

Will continue to work with Spire and participate in future open seasons



Magnum Storage

Ongoing Discussions
Facility development
Pipeline facilities required



MountainWest Pipeline

Ongoing Discussions
Focus on potential expansion of existing aquifer facilities
Proposals in the past have focused on only deliverability expansion



Hedging Options

Growing Wexpro Production

Expanded drilling in the Uintah Basin

Facility expansion

New acquisitions

Horseshoe Bend

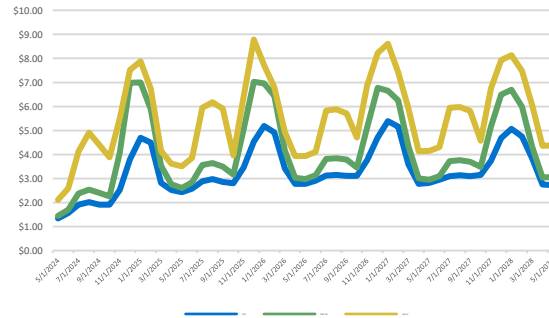
Searching for new opportunities



Fixed Price Baseload Contracts

Converting annual RFP contracts from to fixed price

Continue adding additional fixed-price baseload contracts through RFPs



Geographic Diversification

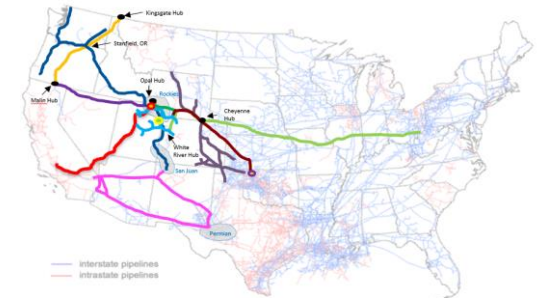
Use transportation capacity to physically access other locations

Northwest Pipeline

Tallgrass Pipelines

Contracts with off-location indexes

CIG index



Source: U.S. Energy Information Administration, About U.S. Natural Gas Pipelines

Reliability - Not Just Pricing

Baseload contracts and storage capacity provide by price hedging and physical supply reliability during high-demand events

- Baseload contracts secure the supply for customers
- Storage contracts provide physical supply

Project Detail Discussion

Scott Messersmith

2024-2025 Distribution Action Plan

High Pressure Projects 2024-2025

Year	Project	Estimated Cost	Revenue Requirement
2024	WA1602 FL13 East HP Station, District Regulator Station, and ILI Facilities, Salt Lake City, UT (720 Corridor)	\$2,800,000	\$330,120
	WA1596 – Replace WA0866 with High Capacity District Regulator Station for South Salt Lake City, UT	\$1,500,000	\$176,850
	WA1617 – New Regulator Station in Grantsville on Sheep Lane	\$750,000	\$86,250
	FL147 – 1 Mile of 8-inch for New Regulator Station on Sheep Lane	\$2,000,000	\$230,000
	MZ0003 – Remodel of Monticello Gate Station	\$1,500,000	\$171,750
	Eagle Mountain District Regulator Station, near 4000 N and Hwy 73	\$750,000	\$88,425
	FL85 Extension for Eagle Mountain District Regulator Station	\$3,500,000	\$400,750
2025	MO0001 Gate Station Remodel in Moab	\$1,250,000	\$143,125
	FL71 AC Mitigation – Approx. 4.5 Miles	\$10,000,000	\$1,145,000
	WA1604 – Replace WA0441	\$1,000,000	\$117,900
	FL Extension for WA1604 Across Jordan River	\$3,000,000	\$353,700
	Black Desert Station in Ivins	\$1,000,000	\$114,500
	AF0014 New Station (West of I-15)	\$850,000	\$97,325
	SLC NW Quadrant Station (Inland Port)	\$750,000	\$85,875
FL Extension for SLC NW Quadrant – Approx 1 Mile	\$3,000,000	\$343,500	
Central 20-inch Loop (Phase 2) – Approximately 10 Miles	\$45,000,000	\$5,152,500	

2024-2025 Distribution Action Plan

High Pressure Projects 2026

Year	Project	Estimated Cost	Revenue Requirement
2026	South Bluffdale District Regulator Station	\$750,000	\$88,425
	FL Extension for Bluffdale Station	\$6,500,000	\$766,350
	SY0002 Syracuse District Regulator Station	\$750,000	\$85,875
	FL47 – Phase 2 Extension to SY0002	\$4,000,000	\$458,000
	South St. George – River Road District Regulator Station	\$750,000	\$88,425
	FL71-5 Extension for South St. George – River Road	\$4,000,000	\$471,600
	Rockport Gate Station	TBD	TBD
	SL0114 Douglas St. Remodel	TBD	TBD
	FL21-10 – 6,800 LF Replacement	\$3,000,000 to \$5,000,000	\$353,700+
	TG0005 Saratoga KRGT Gate Station	\$5,000,000+	\$589,500+
	New Salem Utah Station	\$850,000	\$97,325
	FL Extension for Salem Utah Station – 0.75 Miles 8-inch	\$2,000,000	\$229,000
New Payson UT Station (West of I-15)	\$1,000,000	\$114,500	

2024-2025 Distribution Action Plan

High Pressure Projects 2027-2028

Year	Project	Estimated Cost	Revenue Requirement
2027	EG0001 – Eagle Mountain Gate Station Capacity Increase	TBD	TBD
	South Hurricane District Regulator Station	\$750,000	\$88,425
	FL Extension for South Hurricane Station	\$6,500,000	\$766,350
2028	Central 20-inch Feeder Line Loop (Phase 3) – Approx 5 Miles	TBD	TBD
	New Washington Fields Station (Southern Utah)	\$1,000,000	\$114,500

Questions?