

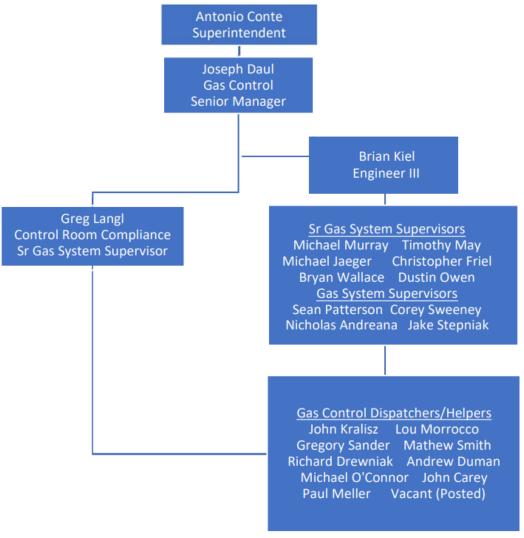
National Fuel & Empire Pipeline

Spring 2024 ECOM Presentation

Gas Control Overview & Personnel

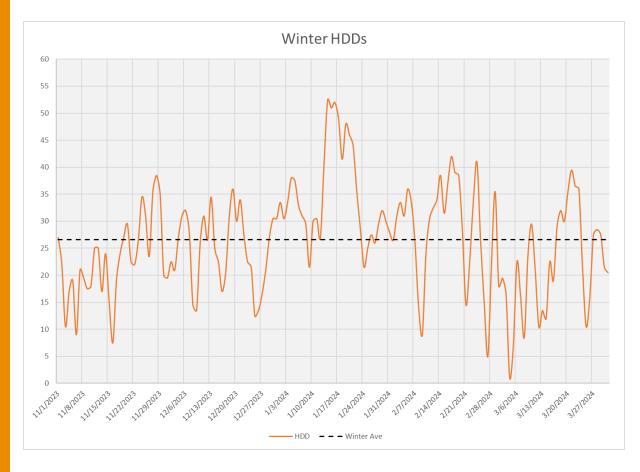
- Primary control room in Buffalo, NY
- GCOC operates National Fuel Supply, Empire, National Fuel Midstream, and National Fuel Distribution (NY & PA) assets
- 10 System Supervisors
- 10 Gas Dispatchers

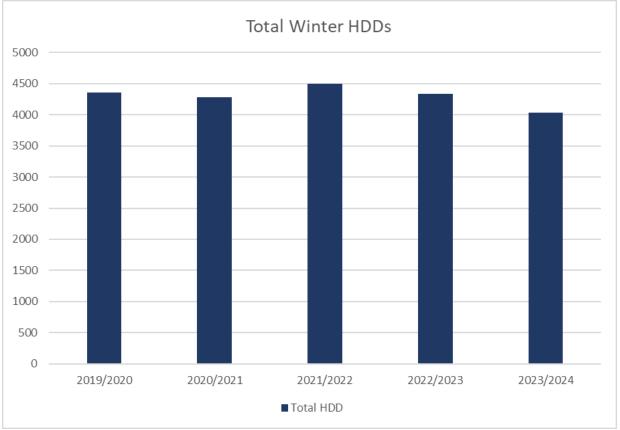






2023/2024 Winter Weather







National Fuel Supply

System Overview - National Fuel Gas Supply Company (NFGSC)

NFGSC Operates:

- Over 1,600 miles of transmission pipeline in Western NY & PA
- 28 active storage facilities
- 26 compressor stations



NFGSC System Overview

Weather & Throughput Statistics:

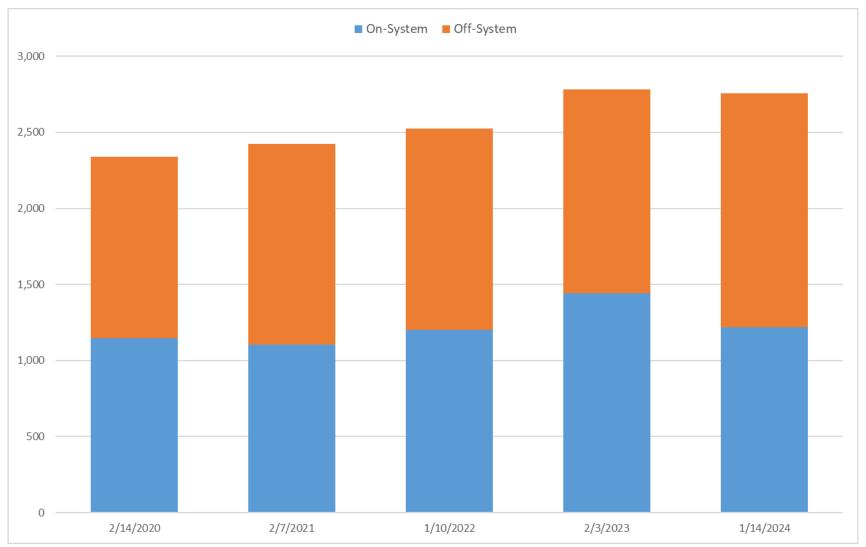
Winter Operations(11/1/23 to 3/31/24)

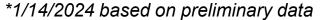
Peak Day Throughput (1/14/2024)	2,980 MMCF
Peak Day Degree Day (1/14/2024)	53 HDD
Average Degree Day 2023/2024	27 HDD
Average Degree Day 2022/2023	29 HDD
Total Winter Throughput (Nov-Mar*)	280 BCF

*March data not yet finalized



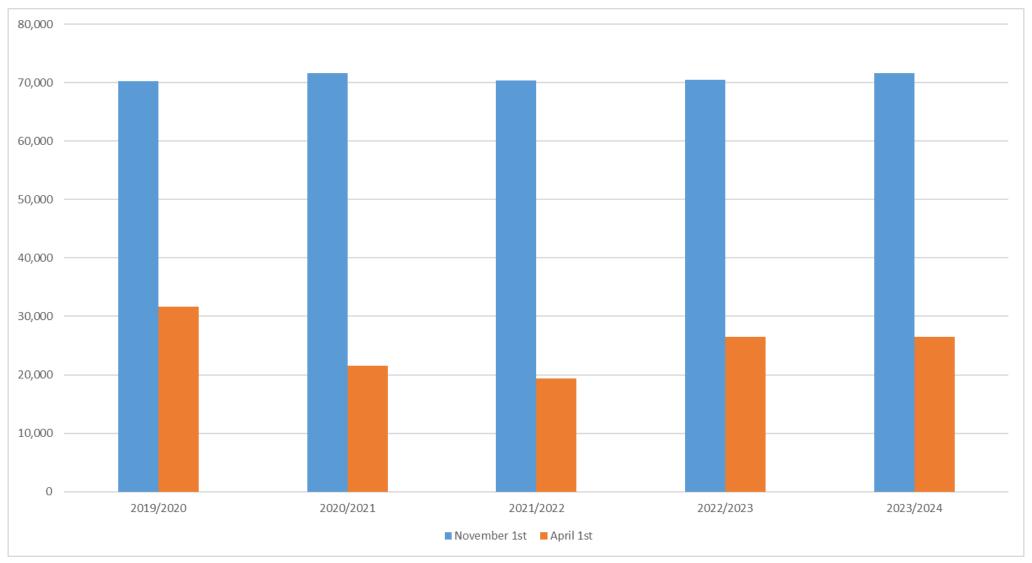
NFGSC Peak Day Deliveries (MDth)







NFGSC Top Gas Storage Inventory (MMCF)



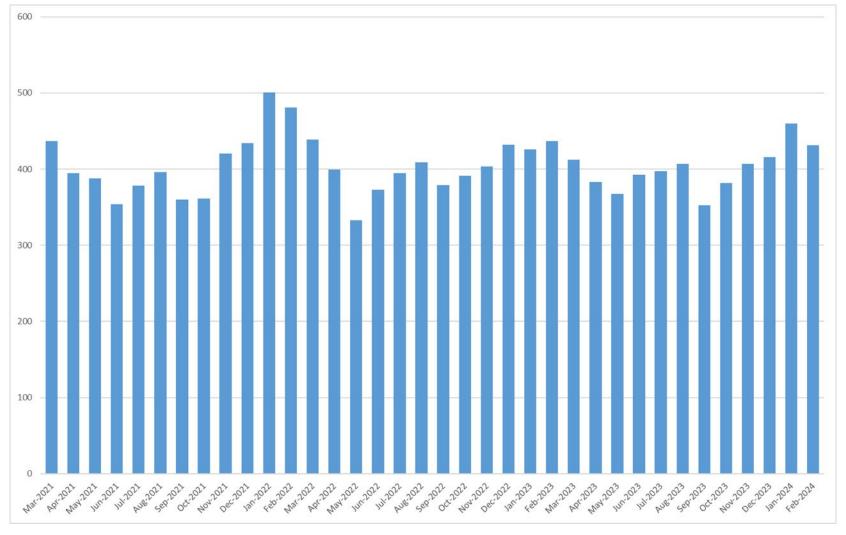


NFGSC Line X South to North





NFGSC Line X South to North





Construction and Maintenance Schedule

Project	Description	Project Start Date	Project End Date	Estimated Outage Duration (Days)	Location	Impact	Expected Service Level Impact
Hinsdale - VGR & DGS Systems Install	Station Upgrades	July 2024	July 2024	2	Hinsdale Compressor Station	Concord S to N Capacity reduced to 0. Lease K12092 capacity reduced to 0. Outage will partially overlap with "XE Exposure - Replacement" and "XS Segment Replacements".	Firm
XE Exposure - Replacement	Pipeline Replacements	July 2024	July 2024	8	Line XE	Concord S to N Capacity reduced to 0. Outage will partially overlap with "XS Segment Replacements" and "Hinsdale VGR & DGS Systems Install".	Firm
XS Segment Replacements	Pipeline Replacements	July 2024	July 2024	5	Line XS	Concord S to N Capacity reduced to 0. Lease K12092 capacity reduced to 0. Outage will partially overlap with "XE Exposure - Replacement" and "Hinsdale VGR & DGS Systems Install".	Firm
N20/NM50 ILI	Inline Inspection	June 2024	June 2024	4	Line N	Line N S to N capacity will be reduced. Operating delivery capacity to Pennsylvania Chemicals (PSN3104629) will be limited. See critical notice 1069237	Firm
Marvindale ERU Install	Emissions Reduction	TBD	TBD	2	Marvindale Compressor Station	Receipts at NFG Midstream Clermont, LLC (PSP3104622) will be reduced	Firm
Limestone Piggability Project	Pipeline Upgrades	April 2024	May 2024	22	Limestone Storage	High pressure gas from Limestone storage will be unavailable. See citical notice 1065565	Non-Firm
Hartzfelt Mountain Station Modernization	Station Upgrades	Late Summer 2024	Late Summer 2024	TBD	Hartzfelt Mountain Station	Receipts at Hartzfelt (633863) will be unavailable. Outage will overlap with "EE16 - Valve Replacement".	Non-Firm
EE16 - Valve Removal	Pipeline Upgrades	Late Summer 2024	Late Summer 2024	2	Line EE16	Receipts at Hartzfelt (633863) will be unavailable. Outage will overlap with "Hartzfelt Mountain Station Modernization".	Non-Firm
Limestone Storage - Fall Rock Testing	Rock Testing	November 2024	November 2024	10	Limestone Storage	High pressure gas from Limestone storage will be unavailable	Non-Firm
FM100 Back Pressure Regulator	Pipeline Upgrades	May 2024	May 2024	2	FM100	FM100 area producers may experience high pressure and reduced delivery capability	Local Production Only
YM53 Pig Launcher Modifications	Pipeline Upgrades	May 2024	May 2024	3	Leidy Station	None	None
Ellisburg Hilltop VGR	Station Upgrades	May 2024	May 2024	2	Ellisburg Compressor Station	Units 14 & 15 out of service	None
KPA ILI Lewis Run to Maloney Farm	Inline Inspection	May 2024	May 2024	5	Line KPA	None	None
Line D Hydrotest	Integrity Assessment	Spring 2024	Spring 2024	5	Line D	None	None
Line UNY Schwartz Rd	Pipeline Replacements	Spring 2024	Summer 2024	120	Line U	None	None
Mayville Station	Station Upgrades	Spring 2024	Summer 2024	5	Mayville Station	Physical receipts at Mayville (420088) will be unavailable	None
C46S OPP Installation & Transducer Improvements	Pipeline Upgrades	June 2024	June 2024	3	Colden Storage	No physical injection or withdrawal from Colden storage field	None
YM53 ILI	Inline Inspection	June 2024	July 2024	5	Line YM-53	None expected. See critical notice 1069240	None
C45S	Pipeline Replacements	Summer 2024	Summer 2024	60	Colden Storage	None	None
Line N12 Drip Removal and Robotic ILI	Inline Inspection	Summer 2024	Summer 2024	5	Line N12	None	None
Ellisburg Upper/Lower VGR	Station Upgrades	October 2024	October 2024	4	Ellisburg Compressor Station	Units 1A-12 out of service at various times	None



Empire Pipeline

Empire System Overview

Empire Operates:

- Over 269 miles of transmission pipeline in Western & Central NY
- 3 compressor stations



Empire System Overview

Weather & Throughput Statistics:

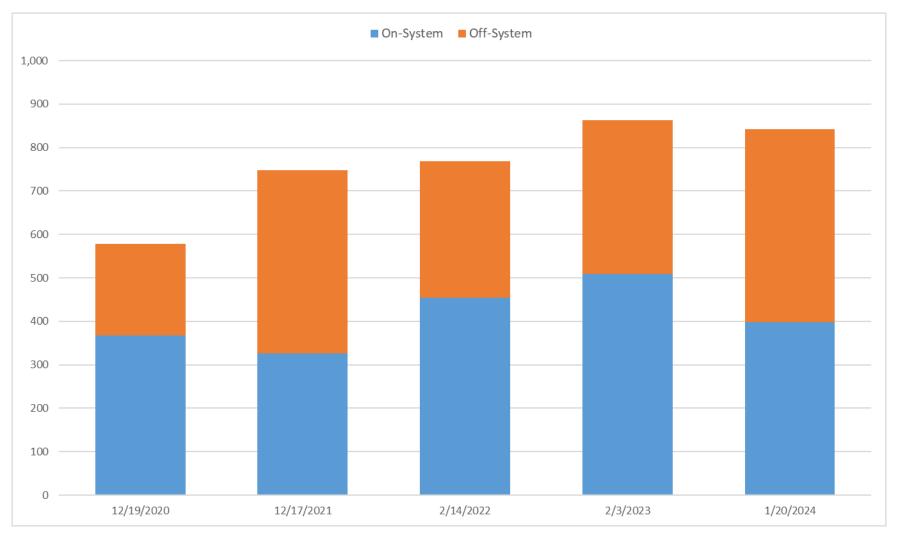
Winter Operations(11/1/23 to 3/31/24)

Peak Day Throughput (1/20/2024)	842 MMCF
Peak Day - Power Gen (1/20/2024)	199 MMCF
Peak Day Degree Day (1/20/2024)	50 HDD
Average Degree Day 2023/2024	27 HDD
Average Degree Day 2022/2023	29 HDD
Total Winter Throughput (Nov-Mar*)	112 BCF

^{*}March data not yet finalized



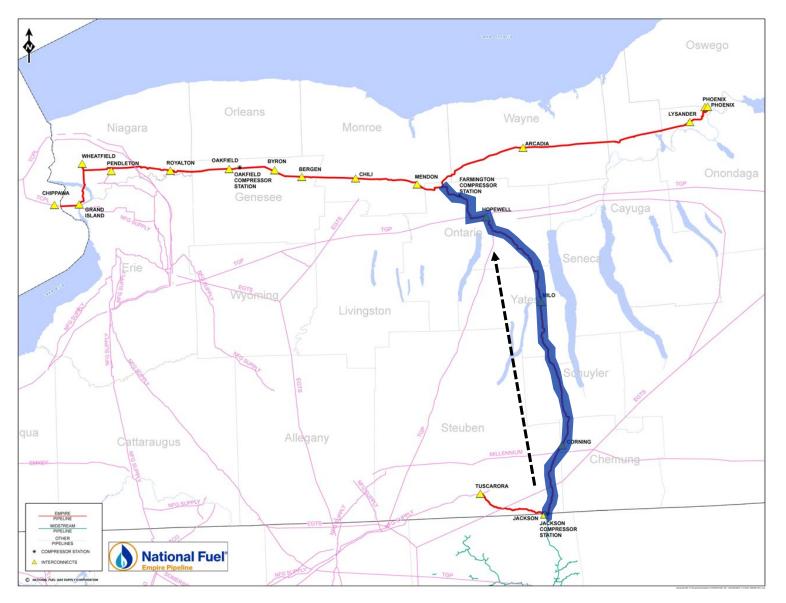
Empire Peak Day Deliveries (MDth)



*1/20/2024 based on preliminary data

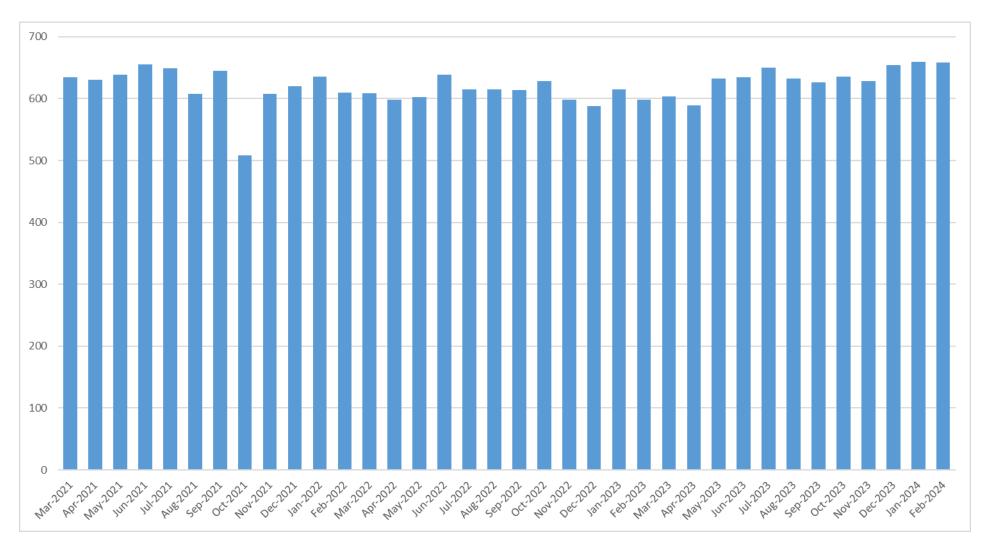


Empire Connector South to North





Empire Connector South to North





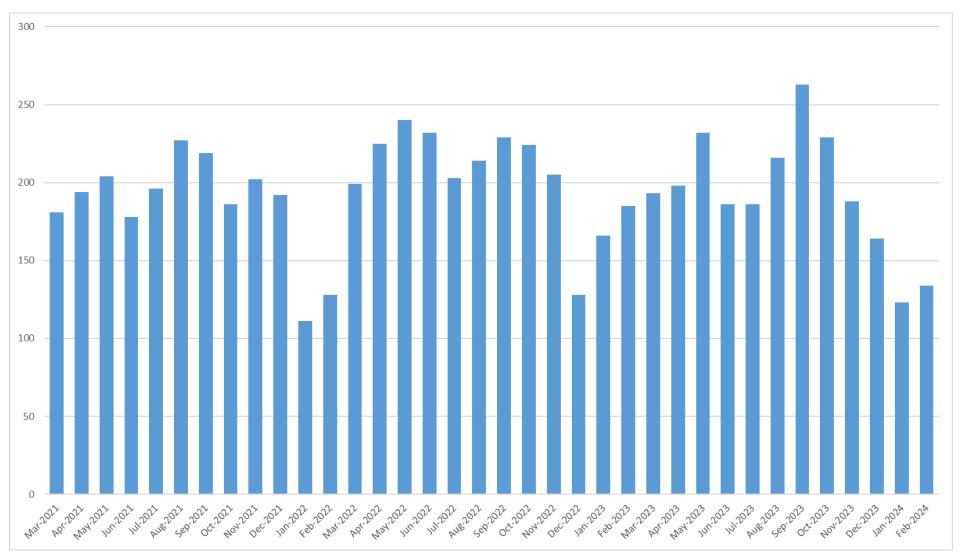


Chippawa: Delivery to TC Energy





Chippawa: Delivery to TC Energy





Construction and Maintenance Schedule

Project	Description	Project Start Date	Project End Date	Estimated Outage Duration (Days)	Location	Impact	Expected Service Level Impact
Jackson Interconnect - Station Enhancements	Station Upgrades	March 2024	June 2024	6	Jackson Interconnect	Receipt capacity reduction at: NFG Midstream Covington (EPRU91111) Repsol Oil & Gas USA (EPRU91101) Tuscarora (022009010)	Firm
Quackenbush Station Pigging Enhancements	Pipeline Upgrades	Late Summer 2024	Late Summer 2024	7	Quackenbush Station	Receipt capacity reduction at: NFG Midstream Covington (EPRU91111) Repsol Oil & Gas USA (EPRU91101) Tuscarora (022009010)	Firm
Jackson Compressor Station - Dry Gas Seal System Install	Compressor Station Upgrade	November 2024	November 2024	2	Jackson Compressor Station	Receipt capacity reduction at: NFG Midstream Covington (EPRU91111) Repsol Oil & Gas USA (EPRU91101) Tuscarora (022009010)	Firm
EMP12 Pigging Enhancements	Pipeline Upgrades	Summer 2024	Summer 2024	14	Empire Mainline to Wheatfield Station	Physical deliveries to Wheatfield (012003015) will be unavailable	None
EMP12 ILI - Mainline to Wheatfield Station	Inline Inspection	September 2024	October 2024	0	Empire Mainline to Wheatfield Station	None	None

