

2025 Winter Forum Milwaukee, Wisconsin

September 18, 2025



Tom Halpin Vice President, Marketing



Customer Commitment



Vision Statement

 To be the preferred provider of natural gas transportation and storage services based on our integrity, operational excellence, financial strength and environmental responsibility

Mission Statement

We are in business to serve our customers. Fairly. Efficiently. Reliably.

These statements mean that

- You will get what we promise on time
- We will share the purpose behind our actions
- We will commit to making it easy to do business with us
- We will negotiate and perform in good faith
- We will continue to invest in the pipeline in order to provide you highly reliable service and to meet your future growth needs

-Permanent Partners-

- Mutually beneficial relationships based on our core principles, not quarter over quarter profits
- Perform necessary due diligence, but maintain an attitude of partnership
- No surprises either way
- Frank, candid discussions
- Seek balanced outcomes

Why Six Core Principles and the focus on Permanent Partnerships? SUSTAINABILITY



Why is Northern Filing a Rate Case?



- Northern Natural Gas is filing this rate case due to the significant capital being invested in its pipeline system to comply with pipeline safety requirements and maintain reliability of its service to customers
- Northern's last section 4 rate case was filed July 1, 2022, in Docket No. RP22-1033, and was settled in 2023, with a Commission order approving the settlement September 7, 2023
- Northern is in the midst of a generational capital investment program to update and modernize its pipeline system
 - Northern's first pipeline began serving customers in 1930, with significant expansions in the 1940s through 1960s
 - The A-line, which is the original pipeline installed, is in the process of being abandoned (628 miles abandoned through 2025, with another 106 miles to be abandoned in 2027)
 - Other vintage pipeline and obsolete compressor units that are no longer serviced by the original manufacturer are being replaced

Asset Modernization Activity

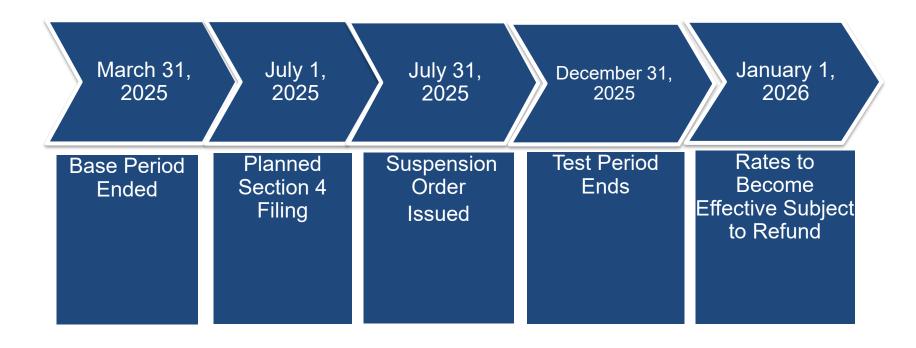


- Northern began discussions as early as 2014 with its customers to advise of the need to modernize its pipeline system; however, Northern was unsuccessful in achieving a consensus for an asset modernization tracker
- By the end of 2034, Northern anticipates having invested \$4.5b in asset modernization since the program began. Northern will have invested \$2b by the end of 2025
- More recently, since the last rate case, and estimated through the end of 2025, Northern will have invested \$1.6b in asset modernization and maintenance capital that is not recovered in current rates, driving an approximately \$1.1b increase to rate base (27% increase from the last case)
- Northern has discussed potential interest in a pre-filed settlement with several customers to determine whether a pre-filed settlement with customers could be achieved. Feedback from these discussions, however, was not positive
- Due to continued asset modernization investment, another rate case is likely to be required within the next few years unless depreciation rates are increased to offset the investment

Section 4 Filing – Abbreviated Timeline



Northern filed the rate case on July 1, 2025



Rate Base as of December 31, 2025



- Due primarily to asset modernization and other maintenance capital investment, Northern's rate base will have increased by \$1.1b since Northern's last rate case
- Northern's capital expenditures have significantly outpaced annual depreciation expense

	RP25-	
Rate Base Items	Dec-25	Dec-22
[a]	[b]	[c]
(In millions)		
Gross Plant In Service	\$ 8,115.8	\$ 6,629.6
Accumulated Depreciation, Depletion & Amortization	(1,849.9)	<u>(1,541.9</u>)
Net Plant In Service	6,265.9	5,087.7
Regulatory Assets and Liabilities	(286.8)	(324.7)
Materials, Supplies and Prepayments	126.6	73.8
Accumulated Deferred Taxes	(865.2)	<u>(713.6</u>)
Total Rate Base	\$ 5,240.5	\$ 4,123.2
	Increase	\$ 1,117.3
Percenta	ge Change	27%

Increase in Cost of Service Driven Largely by Maintenance and Asset Modernization Capital

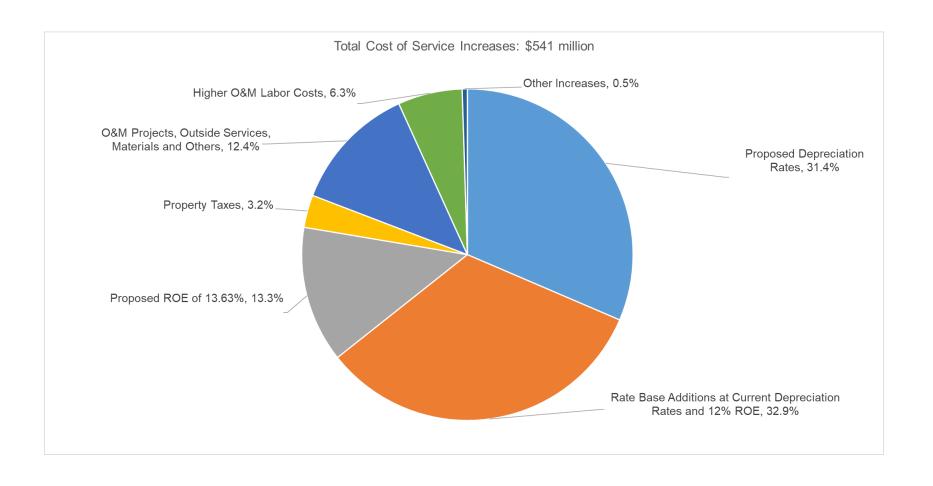
Highlights:

- The increased rate base due to increased capital investment accounts for \$195m of the increase in cost of service
 - Asset modernization and other maintenance capital investment is estimated to account for \$176m of the increase. Proposed depreciation rate increase accounts for \$170m
- Proposed return on equity increase from 12% to 13.63% equals \$72m

	RP25-COS	2022 COS		
Particulars	Filing	45 Day Filing	Change	
[a] (In millions)	[b]	[c]	[d]	
O&MA&G Expenses	\$ 430.9	\$ 329.8	\$ 101.0	\$46m O&M projects, \$34m O&M labor, \$21m Others (outside services, materials, others)
Depreciation and Negative Salvage Expense	407.8	192.0	215.9	\$170m increased depreciation and negative salvage rates \$46m plant additions
After-Tax Return	534.9	378.9	156.0	
Income Taxes	156.9	108.4	48.5	
Return and Taxes	691.8	487.2	204.5	\$132m increased rate base \$72m proposed 13.63% ROE
Property Taxes	91.0	73.8	17.2	Plant additions
Other	(7.2)	(9.6)	2.4	
Total Cost of Service	\$ 1,614.3	\$ 1,073.3	\$ 541.0	

Cost of Service Increases

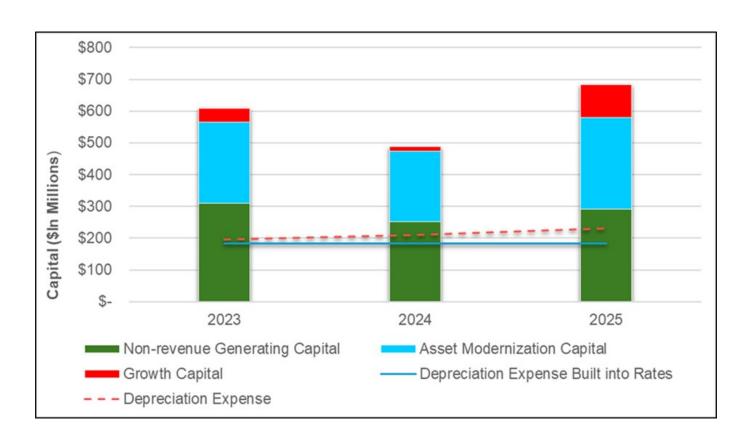




Maintenance and Asset Modernization Investments vs Depreciation



Annual asset modernization and other maintenance capital investments continue to outpace annual depreciation expense built into existing rates



Capitalization and Return as of December 31, 2025



- Northern's capital structure is consistent with that authorized by FERC
 - Equity percentage is lower than recent pipeline filings that are generally at 65% or higher
- Northern's cost of capital is lower than the industry average, and the proposed ROE of 13.63% is lower than recently filed returns that are in excess of 14.0%
- Northern's A2/A- credit ratings are the highest among interstate natural gas pipelines
- Northern's overall cost of its long-term debt is 4.51%

	Ca	pitalization				
		at	Capitalization			
Capitalization Items	De	ec 31, 2025	Percentage	Rate	Rat	e of Return
[a]	(lı	[b] n millions)	[c]	[d]		[e]
Debt Capital	\$	2,100.0	37.56%	4.51%		1.70%
Common Stock Equity	\$	3,491.3	62.44%	13.63%		8.51%
Total Capitalization	\$	5,591.3	100.00%			10.21%
Total Rate Base					\$	5,240.5
After-Tax Return Allowance Interest Expense					\$	88.9
Equity Return					*	446.0
Total After-Tax Return					\$	534.9

Book Depreciation and Negative Salvage Rates



- Northern is filing increased depreciation and negative salvage rates
 - An increase to depreciation rates to reflect an economic life of 28 years versus a current depreciable life of 40 years for transmission assets
 - An increase to existing negative salvage rates for transmission facilities
 - New negative salvage rates for underground and LNG storage facilities

	2023 Settle	ement	RP25-			
Plant	Dep	NS	Dep	NS		
Category 1/	Rates	Rates	Rates	Rates		
[a]	[b]	[c]	[d]	[e]		
Underground Storage	1.25%	0.00%	3.27%	0.75%		
LNG Storage	2.95%	0.00%	2.81%	0.83%		
Transmission	2.49%	0.10%	3.66%	1.16%		
1/ Includes plant categories for	which depreciation	rate changes	are being propose	d		

Base Case and Prospective Pro Forma Case Changes to Rate Schedules



- For the Base Case
 - Rates designed consistent with principles underlying the 2020 and 2023 Settlement rates
- For the Prospective Pro Forma Case
 - Northern is proposing a change in rate design to system-wide reservation rates
 - Northern is proposing to implement two postage stamp commodity rates for the Field Area;
 one for transportation within the current Mileage Indicator Districts 1-7 (Section 1) and a second for transportation within the current Mileage Indicator Districts 8-16B (Section 2)
 - Northern is proposing to discontinue Small Customer benefits that are not available to other shippers, including GS-T service

Base Case: Rates for Transmission and Storage Services



			Transmiss	ion Rates		
		Winter			Summer	-
	Current	Proposed	Percentage	Current	Proposed	Percentage
Transmission Rates	Rates	Rates	Change	Rates	Rates	Change
Reservation Rates						
Market Area						
TF12 Base	\$17.417	\$ 32.225	85%	\$ 9.676	\$ 17.903	85%
TF12 Variable	\$23.609	\$ 43.682	85%	\$ 9.676	\$ 17.903	85%
TF5	\$25.799	\$ 47.740	85%			
TFX	\$25.799	\$ 47.740	85%	\$ 9.676	\$ 17.903	85%
Field Area						
TFX	\$13.476	\$ 30.925	129%	\$ 7.485	\$ 17.180	130%
SMS	\$4.2550	\$ 7.8726	85%	\$4.2550	\$ 7.8726	85%
Commodity Rates						
Market Area						
TF/TFX Firm	\$0.0260	\$ 0.0228	-12%	\$0.0260	\$ 0.0228	-12%
П	\$0.8742	\$ 1.5932	82%	\$0.3441	\$ 0.6117	78%
GS-T	\$1.2001	\$ 2.1952	83%	\$1.2001	\$ 2.1952	83%
Field Area						
TFX Firm (Rate/100 miles)	\$0.0103	\$ 0.0082	-21%	\$0.0103	\$ 0.0082	-21%
TI (Rate/100 miles)	\$0.2203	\$ 0.3935	79%	\$0.1269	\$ 0.2223	75%
GS-T	\$0.8740	\$ 1.9652	125%	\$0.8740	\$ 1.9652	125%
SMS	\$0.0208	\$ 0.0208	0%	\$0.0208	\$ 0.0208	0%

	Storage Rates										
	Current	Pr	oposed	Percentage							
Storage Rates	Rates		Rates	Change							
FDD Capacity	\$ 0.6731	\$	0.9991	48%							
FDD Reservation	\$ 3.2345	\$	4.8003	48%							
Injection/Withdrawal	\$ 0.0232	\$	0.0228	-2%							
Inventory	\$ 0.1624	\$	0.2412	48%							

Pro Forma Case: Rates for Transmission Services



					Transmis	ssion R	ates				
				Winter					Summer		
		Current		Proposed	Percentage		Current		Proposed	Percentage	
Transmission Rates		Rates		Rates	Change	Rates		Rates		Change	
Reservation Rates											
TF12 Base	\$	17.417	\$	33.588	93%	\$	9.676	\$	18.660	93%	
TF12 Variable	\$	23.609	\$	45.530	93%	\$	9.676	\$	18.660	93%	
TF5	\$	25.799	\$	49.760	93%						
TFX 1/	\$	25.799	\$	49.760	93%	\$	9.676	\$	18.660	93%	
SMS	\$	4.2550	\$	8.2056	93%	\$	4.2550	\$	8.2056	93%	
Commodity Rates											
Section 3 (Market)											
TF/TFX Firm	\$	0.0260	\$	0.0220	-16%	\$	0.0260	\$	0.0220	-16%	
TI	\$	0.8742	\$	1.6588	90%	\$	0.3441	\$	0.6358	85%	
Section 2 (Field - Midcontinent)											
TF/TFX Firm 2/	\$	0.0103	\$	0.0205	na	\$	0.0103	\$	0.0205	na	
TI 2/	\$	0.2203	\$	1.6573	na	\$	0.1269	\$	0.6343	na	
Section 1 (Field - Permian)					na					na	
TF/TFX Firm 2/	\$	0.0103	\$	0.0205		\$	0.0103	\$	0.0205		
TI 2/	\$	0.2203	\$	1.6573	na	\$	0.1269	\$	0.6343	na	
SMS	\$	0.0208	\$	0.0208	na	\$	0.0208	\$	0.0208	na	

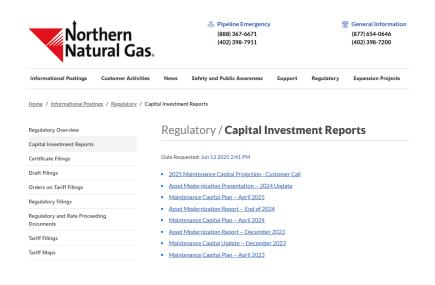
^{1/}TFX percentage increase as compared to the current TFX Market Area reservation rate.

^{2/}Northern's current Field Area commodity rates are designed on a per 100 miles basis. Northern proposes to implement two postage stamp commodity rates in the Field Area; one for transportation within the current MIDs 8-16B (Section 2).

Additional Information Found on Northern's Website



Capital Investment Reports



Regulatory and Rate Proceeding Documents

Nortl Natu	hern ral Gas.		(888) 367-6671 (402) 398-7911	,		@ General Informatio (877) 654-0646 (402) 398-7200	n		(866) 398-1 (402) 398-1	7098
Informational Postings	Customer Activities	News	Safety and Public Awareness	Support	Regulatory	Expansion Projects	About Us	Careers	Contact Us	Search
Home / Informational Postings	6 / Regulatory / Regulat	ory and R	ate Proceeding Documents							
Regulatory Overview		Regu	ılatory / Regulato	ry And	l Rate P	roceeding D	ocumer	nts		
Capital Investment Reports										
Certificate Filings		Date Requ	uested: Jun 12 2025 2:45 PM							
Draft Filings		Custo	omer Communication	•						
Orders on Tariff Filings			tion contains links to custome	-	ations regardi	ng the Section A rate c	ace Northern	nlane to fil	le on July 1 20'	25
Regulatory Filings			er Call - Section 4 Filing Overv		ations regardin	ig the Section 4 rate co	ase i voi tiiei ii	pians to in	e on outy 1, 202	23.
Regulatory and Rate Proceedin Documents	ng									
Tariff Filings		Misc	<u>cellaneous Regu</u>	latory	Docum	<u>ents</u>				
Tariff Maps		This sec	tion contains links to informat	ion regardir	g miscellaneo	us regulatory documer	nts.			
		No Infor	mation to Display							
		lf you hav	ve any questions or need assistance	regarding thi	s site, please call	your marketing represen	tative.			



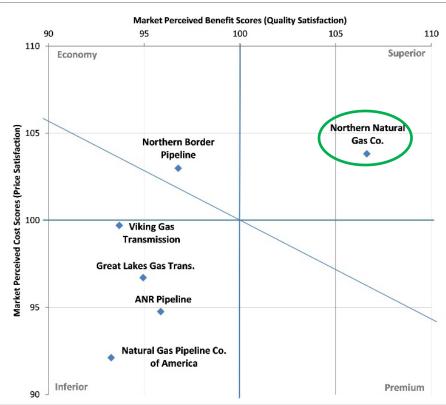
Industry Leading Customer Service



Thank you for the opportunity to serve you and the positive feedback!

- Northern ranked first in the "Mega" and "Major" pipeline categories for the 17th consecutive year
- Northern ranked 2nd overall behind sister company Kern River Gas Transmission, while two other BHE Pipeline Group Companies Carolina Gas and Eastern Gas Transmission and Storage finished 3rd and 4th, respectively, out of 38 interstate pipelines in the 29th Edition of the Mastio & Company survey, resulting in an organizational sweep of the top four spots for the second year in a row
- The BHE Pipeline Group has finished first in the organization category for 20 consecutive years
 - Northern scored highest in the following areas
 - 1. Firm gas transportation is highly reliable
 - 2. Scheduled gas volumes are accurate
 - 3. Accuracy of invoices
 - 4. Communicates in an honest and forthright manner
 - 5. Representatives are accessible when needed
- What must we do now to earn a "10" later this year?
 - "10" = 1st place
 - "9" = 4th place
 - "8" = Bottom quartile
 - "7" = Last



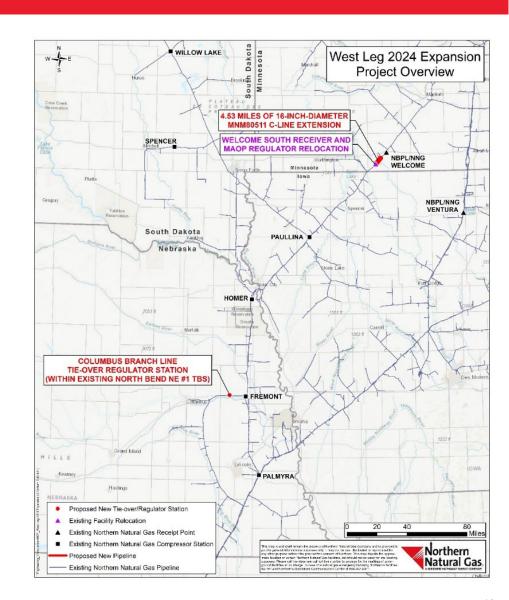




Recently Completed Market Area Expansions West Leg 2024



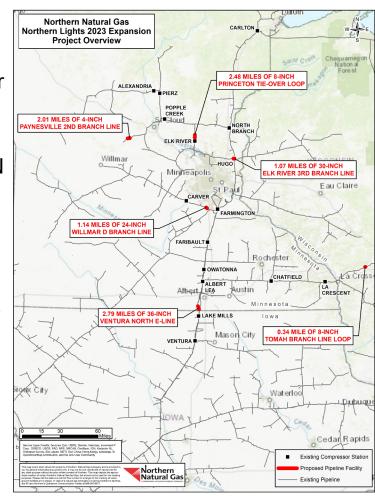
- Incremental capacity of 12,960 Dth/day
 - Nine customers
- Project scope
 - 4.5 miles of new 16-inch mainline extension near Welcome, Minnesota
 - Regulator/tie-over modifications near Columbus, Nebraska
- Project Cost: \$25.6m
- In service: November 1, 2024



Recently Completed Market Area Expansions Northern Lights 2023 Expansion



- Incremental capacity of 50,889 Dth/day
 - Eight customers
- Project scope
 - Mainline:
 - 2.79 miles of 36-inch mainline extension near Lake Mills, Minnesota
 - Branch Line:
 - 2.01 miles of loop on 4-inch Paynesville, MN line
 - 1.14 miles of loop on 24-inch Willmar, MN line
 - 1.03 mile of loop on 30-inch Elk River, MN line
 - 0.34 miles of loop on 8-inch Tomah, WI line
 - 2.47 miles of loop on 8-inch Princeton, MN line
 - TBS Modifications (Not part of the filing)
 - Represents \$5.9m of \$54.6m total capital
 - Six in Minnesota and one in Wisconsin
- Project Cost: \$54.6m
- In-service date: November 1, 2024



Current Market Area Expansions



- Northern Lights 2025 Expansion
 - 46,064 Dth/day (Peak Winter MDQ)
 - In service: November 1, 2025
 - Capital: \$66.2m
 - Construction in progress
- East Leg 2026 Expansion
 - 12,000 Dth/day (Peak Winter MDQ)
 - In service: November 1, 2027
 - Capital: \$13.8m
 - Final customer agreement pending
 - To be constructed under blanket authority
- Central Mainline Corridor Expansion
 - Open season closed April 8, 2025
 - Bids from six parties totaling 546,313 Dth/day (Peak Winter MDQ)
 - Northern is currently working with the six parties to define a final project

Current Market Area Expansions (continued)

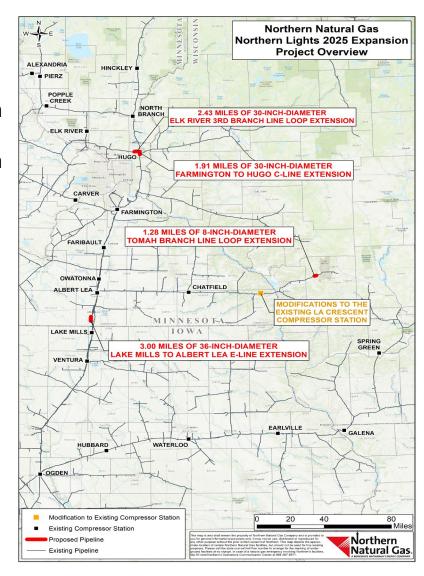


- Northern Lights 2027 Expansion
 - Open season closed May 15, 2025
 - Bids from eight parties totaling 110,072 Dth/day (Peak Winter MDQ)
 - Northern is currently working with the parties to define a final project

Northern Lights 2025 Expansion



- Incremental capacity of 46,064 Dth/day
 - Four customers
- Project scope:
 - Mainline:
 - 1.3 miles of 30-inch mainline extension near Farmington, Minnesota
 - 3.0 miles of 36-inch mainline extension near Lake Mills, Minnesota
 - Branch Line:
 - 2.4 miles of 30-inch branch line extension near Elk River, Minnesota
 - Minor modifications to existing compressor station near La Crescent, Minnesota
 - 1.28 miles of 8-inch branch line loop near Tomah, Wisconsin
 - TBS Modifications
 - Five in Minnesota and five in Wisconsin
- Project Cost: \$66.2m
- In-service date: November 1, 2025





Field Area Expansions



- Trans-Pecos Lateral Expansion and Interconnect
 - 500,000 Dth/day lateral capacity
 - 250,000 Dth/day bi-directional interconnect capacity
 - Approximately \$7m
- Agua Blanca Pecos County
 - 250,000 Dth/day bi-directional capacity
 - Approximately \$1.6m
- Targa Midland Permian Pipeline
 - Spraberry area bi-directional interconnect
 - Adds bi-directional service for deliveries to and from Targa Midland Permian Pipeline header service
 - 500,000 Dth/day bi-directional capacity
 - Approximately \$2.8m
- Tarzan Compressor Project
 - 87,000 Dth/day capacity
 - In service: November 1, 2025
 - Capital: \$38.8m (11,000 hp compressor)
 - Filed with FERC January 17, 2025
 - Authorized March 19, 2025



Winter 2024-2025 Review



- On January 20, 2025, Northern set the second highest all-time market area delivery record of 5.738 Bcf, at a system-weighted temperature of -20 degrees Fahrenheit.
 - The record is 5.834 Bcf, set January 6, 2022, at a system-weighted temperature of -12 degrees Fahrenheit.
- On February 20, 2025, Northern experienced its record-breaking 14th 5.0 plus Bcf market area delivery day of the 2024-2025 heating season.
 - The previous record for the most 5.0 plus Bcf days in a heating season was 11 in 2021-2022.
- The 2024-2025 heating season average is 3.688 Bcf/day
 - The 2023-2024 heating season average was 3.450 Bcf/day

System-\	System-Weighted Temperature vs Normal								
	2020-21 2021-22 2022-23 20								
November	9%	1%	11%	7%	4%				
December	8%	7%	13%	27%	7%				
January	13%	14%	7%	4%	6%				
February	27%	21%	2%	23%	14%				
March	15%	14%	23%	5%	11%				
Heating Season	3%	8%	7%	14%	1%				
Colder than Normal									
Warmer than Normal		1							



Chris Perry

Vice President, Customer Service

Customer Service



- The customer service group assists customers with all scheduling, contracting and invoicing functions
- Also responsible for managing website content, data and ensuring all business applications are meeting the needs of the customer
- We are committed to making it easy to do business with us
- We Expect to be the Best
 - Best applications and website
 - Friendly and knowledgeable staff
 - Clear, timely communication
- We are driven to make your workday more efficient while providing easy access to a friendly and knowledgeable staff that is eager to serve



Our Focus



Speed and Efficiency

- Fast Response Times: Customer service representatives are available in-office between
 6:30 a.m. and 10 p.m. each day to answer phone calls, ICE chats and emails
- Efficient and Accurate Information: Our team-based culture and in-office presence allows representatives to have the necessary resources available to answer questions accurately and in an efficient manner

Personalization

- Each customer has a dedicated customer service, marketing, and contracts representative who work together to ensure quality service
- Representatives invest in learning the business of their assigned customers to understand the needs and challenges of your business
- Customer service is always available to provide in-person or virtual training sessions to answer any questions or help onboard new team members

Accessibility and Convenience

- Strong Self-Service Options: Northern's applications and website have an ever-growing library of information
- TMS Reports: Nomination Quantities by Cycle and Firm Contract Usage Summary
- At a Glance: Everything you need to know about the current landscape of the pipeline
- Support Tab: Allocation of Capacity Overview, Frequently Asked Questions, Training Materials, TMS Training Videos

TMS Report Firm Contract Usage Summary



Nomination → Reports → Firm Contract Usage Summary

- This report is a summary of contracted, nominated and remaining MDQ for all firm transport and storage contracts
- Report can be generated for any gas day and cycle, and data can be grouped by receipt or delivery location

						Firm Con	tract U	sage Sur	nmary							
TSP/Name:	784158214 NORTHERN NATURA	AL GAS	COMPANY		Gas Day:	02/07/2021		Cycle:	Final A.M.					Stmt D/T:	09/08/2021 1	12:32 PM
Svc Rea K:	100123 (FT/TF)	Sı	c Reg/Name:	031372049 C	TTY OF PARA	ADISE MN			Agent/N	lame:	20990352	24 ABC COMPANY				
Rec Loc	,	Rec Rank	Up ID	Up K	Del Loc	Del Loc Name	De I Rank	Dn ID	Dn K	TT	Source	Nom Receipt Time	Updated By	Nom Rec Qty	Nom Del Qty	Nom Fue
98	OGDEN DEF. DELIVERY	1	209903524	111348	3115	ZONE E-F-PARADISE	1	209903524	000000	01	EDI	02/08/2021 07:44:57 AM	EDIUSE	450	450	
98	OGDEN DEF. DELIVERY	1	209903524	113708	3115	ZONE E-F-PARADISE	1	209903524	000000	01	EDI	02/08/2021 07:44:57 AM	EDIUSE	0	0	
													Loc 98 Total:	450	450	
388	GRLKS/NNG CARLTON	1	209903524	MC17487	3115	ZONE E-F-PARADISE	1	209903524	000000	01	EDI	02/08/2021 07:44:57 AM	EDIUSE	0	0	
													Loc 388 Total:	0	0	
37654	NNG FIELD/MKT DEMARCATION	1	21372048	123909	98	OGDEN DEF. DELIVERY	1	21372048	113708	01	EDI	02/08/2021 07:44:57 AM	EDIUSE	0	0	1
37654	NNG FIELD/MKT DEMARCATION	1	209903524	123909	3115	ZONE E-F-PARADISE	1	209903524	000000	01	EDI	02/08/2021 07:44:57 AM	EDIUSE	2,596	2,565	3
													Loc 37654 Total:	2,596	2,565	3
78623	VENTURA POOLING POINT (MIC	1	21372048	123907	98	OGDEN DEF. DELIVERY	1	21372048	113708	01	EDI	02/08/2021 07:44:57 AM	EDIUSE	0	0	
78623	VENTURA POOLING POINT (MIC	1	209903524	123907	3115	ZONE E-F-PARADISE	1	209903524	000000	01	EDI	02/08/2021 07:44:57 AM	EDIUSE	0	0	
													Loc 78623 Total:	0	0	
												Contract Total:		3,046	3,015	3
												Contract: 100123	MARKET			
												Contracted MDQ:	4,000			
												Used MDQ:	3,015			
												Remaining MDQ:	985			

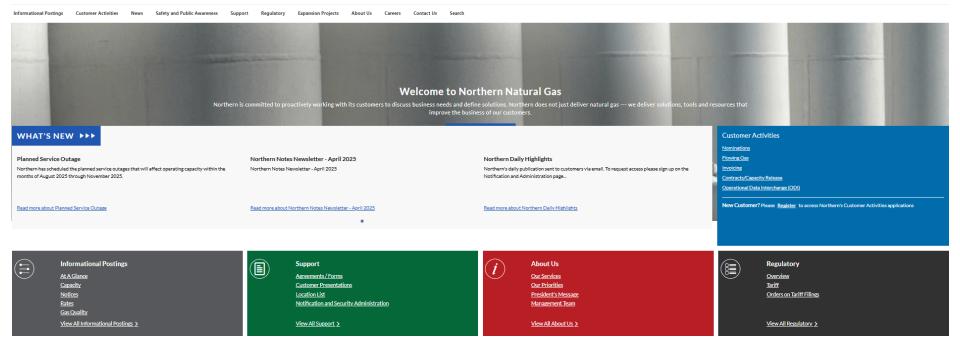
Northern's Homepage





(888) 367-6671 (402) 398-7911 @ General Information (877) 654-0646 (402) 398-7200 © Customer Service (866) 398-7098 (402) 398-7098





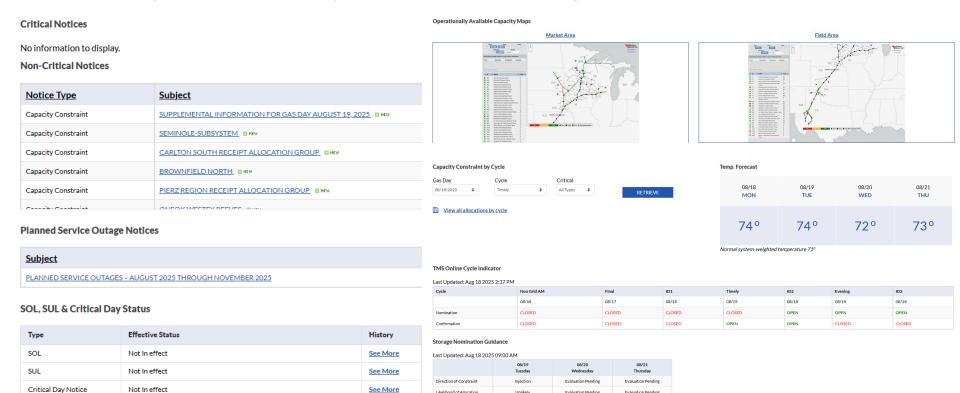
At A Glance



Northern's Homepage → Informational Postings → At A Glance

- Critical and Non-Critical Notices
- Planned Service Outage Notices
- SOL, SUL and Critical Day Status
- Operationally Available Capacity Map

- Capacity Constraint by Cycle
- Temperature Forecast
- TMS Online Cycle Indicator
- Storage Nomination Guidance



Northern Daily Highlights



- Distributed via email every morning at approximately 5 A.M. CCT
- Provides a one-page newsletter featuring prominent updates such as critical notices, commercial highlights, operational updates, available capacity and billing highlights

Natural Gas. A BERKSHIRE HATHAIWAY ENERGY COMPANY	Northern Daily Highlights Natural Gas. A BERKSHIRE HATHAUNAY ENERGY COMPANY Northern Daily Highlights January 03, 2025								
Critical Notices									
Subject	Туре	Begin Date	End Date						
SOL - GAS DAY JANUARY 6, 2025 - MARKET AREA	Operational Alert/SOL	Jan 06 2025 09:00 AM	Jan 07 2025 08:59 AM						
SOL - GAS DAY JANUARY 5, 2025 - MARKET AREA	Operational Alert/SOL	Jan 05 2025 09:00 AM	Jan 06 2025 08:59 AM						
SOL - GAS DAY JANUARY 4, 2025 - MARKET AREA	Operational Alert/SOL	Jan 04 2025 09:00 AM	Jan 05 2025 08:59 AM						
CARLTON RESOLUTION OBLIGATION	Operational Flow Order/Carlton Resolution	Jan 03 2025 09:00 AM	Apr 01 2025 08:59 AM						
SOL - GAS DAY FRIDAY, JANUARY 3, 2025 - MARKET AREA	Operational Alert/SOL	Jan 03 2025 09:00 AM	Jan 04 2025 08:59 AM						
The Critical Notices above are active notices posted within the	last 14 days. For a complete list of all active critic	al notices please see <u>Norths</u>	ern's Critical Notices section						
Pipeline Status Highlights Market and Field Planned Service Outages — Northern ha 2024 through March 2025 for the Market and Field Areas. Please information related to each outage, including the impacted alloca during the outage and the anticipated impact to primary firm se on Northern's website for updated information.	s updated the planned service outages that will a refer to <u>planned service outage notice #84563</u> an tion group(s) and/or point(s), direction of flow, nor	ffect operating capacity wit d the <u>Planned Service Outag</u> mal operating capacity, estin	thin the months of Decembe the Summary page for detaile nated daily operating capacit						
Pipeline Status Highlights Market and Field Planned Service Outages — Northern ha 2024 through March 2025 for the Market and Field Areas. Please information related to each outage, including the impacted alloca during the outage and the anticipated impact to primary firm se	s updated the planned service outages that will a refer to <u>planned service outage</u> notice #84563 and tion group(s) and/or point(s), direction of flow, nor ervice. Please continue to review the <u>Planned Service</u> .	iffect operating capacity wit d the <u>Planned Service Outa</u> mal operating capacity, estin <u>se Outage</u> and <u>Planned Servi</u>	thin the months of Decembe <u>e Summary</u> page for detaile nated daily operating capacit ice <u>Outage Summary</u> section						
Pipeline Status Highlights Market and Field Planned Service Outages — Northern ha 2024 through March 2025 for the Market and Field Areas. Please information related to each outage, including the impacted alloca during the outage and the anticipated impact to primary firm se on Northern's website for updated information. Marketing / Commercial Highlights Beatrice North Allocation Group — Northern allocated Beatric	s updated the planned service outages that will a refer to planned service outage notice #84563 and tion group(s) and/or point(s), direction of flow, nor ervice. Please continue to review the Planned Service. Please continue to review the Planned Service.	iffect operating capacity wit d the <u>Planned Service Outa</u> mal operating capacity, estin <u>se Outage</u> and <u>Planned Servi</u>	thin the months of Decemb the <u>Summary</u> page for detaile nated daily operating capaci tice <u>Outage Summary</u> section						

Training Materials



Northern's Homepage → Support → Training Materials

Support / Training Materials

DDVC and SMS Information

DDVC Calculator and Input Guide

The DDVC calculator provides customers an opportunity to create an example of how to determine a delivery point variance between scheduled and actual flow. The secondary tab identifies the supporting documents.

SMS Service Details

SMS-DDVC Graph During SOL and Critical Days (Other Than Small Customers)

This graph provides examples of Daily Delivery Variance Charges (DDVCs) for Other Than Small Customers during a System Overrun Limitations (SOL) Day or Critical Day as defined in Northern's tariff sheet No. 291

SMS-DDVC Graph During SOL and Critical Days (Small Customers)

This graph provides examples of Daily Delivery Variance Charges (DDVCs) for Small Customers during a System Overrun Limitations (SOL) Day or Critical Day as defined in Northern's tariff sheet No. 291

SMS-DDVC Graph During Standard and SUL Days (Small Customers)

This graph provides examples of Daily Delivery Variance Charges (DDVCs) for Small Customers during a System Underrun Limitations (SUL) or Standard Day as defined in Northern's tariff sheet No. 291

SMS-DDVC Graph During Standard or SUL Days (Other Than Small Customers)

This graph provides examples of Daily Delivery Variance Charges (DDVCs) for Other Than Small Customers during a System Underrun Limitations (SUL) or Standard Day as defined in Northern's tariff sheet No. 291

Password Management and Multifactor Authentication Manuals

- Multifactor Authentication User Manual
- Self-Service Password Management User Manual

TMS Training Videos

TMS Training Videos

TMS (Nominations & Scheduling) Manuals

Alternate Receipt-Delivery - TMS User Guidelines

This document is an overview regarding the implementation of NAESB Standard 1.3.80 and the flexibility of the alternate receipt and delivery points through the use of redirects of scheduled quantities.

Commonly Used Acronyms

This document contains frequently used and common acronyms used within the natural gas industry as well as Northern (Updated 9/17)

Cycles, Flow Times and EPSQ Volumes

This document contains user guidelines regarding Elapsed-Prorated Scheduled Quantity (EPSQ).

FDD Nomination Activity During Storage Allocations

This document contains user guidelines regarding FDD nominations during a storage allocation. (Updated 1/19)

Final 8:00 AM Guidelines

This document reviews the storage nomination guidelines for the Final 8AM Cycle.

Point Available Capacity Calculator

SMS-DDVC Graph During SOL & Critical Days

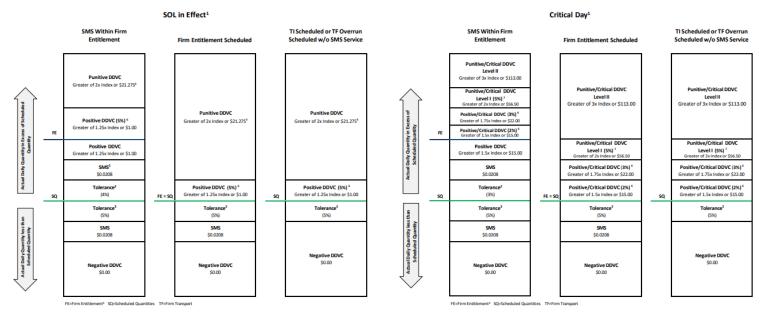




Northern's Homepage → Support → Training Materials

Effective January 1, 2023

System Management Service Daily Delivery Variance Charges (DDVC) Examples for Other than Small Customers



ootnotes:

- 35 SOL days during the 2024/2025 heating season
 - 23 Market Area SOL days
 - 12 Systemwide SOL days
- Average of 28 SOL days during the last five heating seasons

Includes customers who do not qualify as Small Customers under Northern's tariff. Index is equal to the highest published Platts "Gas Daily" Midpoint price on the applicable day at any of the applicable index points of: Market Area - Northern, demarc and Northern
Ventury, or Field News - Parhanding F., "Collas, and El Paso, Permin."

² Cannot exceed firm entitlement; tolerance is 4% of scheduled quantity for SOL days and 3% for Critical Days.

³Cannot exceed firm entitlement; tolerance is 5% of scheduled quantity for SOL days and 3% for Critical Days

⁴ Firm entitlement (FE) is the sum of the legal entity's MDQ, alternate firm scheduled and overrun/interruptible scheduled. On a SOL day where primary scheduled is less than MDQ, FE is equal to MDQ,

⁵ SMS availability may be authorized above firm entitlement on SOL days. Such availability will be posted on Northern's website.

⁴The volume to which Positive DDVC above Firm Entitlement (FE) applies is equal to 5% of FE for TF shippers if no TF overrun is scheduled and is equal to 5% of scheduled volume for TF shippers with TF overrun scheduled and for TI shippers.

⁷ The volume to which Punitive/Critical Level 1 applies is equal to the first 5% of all delivered volumes in excess of the Positive/Critical DDVC component.

⁸ Charge equal to five (5) times the SMS monthly reservation fee of \$4.255. Stipulation and Agreement of Settlement filed June 23, 2023.

Training Videos



Northern Homepage → Support → TMS Training Videos



Ripeline Emergency (888) 367-6671 (402) 398-7911 General Information (877) 654-0646 (402) 398-7200 (866) 398-7098 (402) 398-7098

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Home / Support / TMS Training Videos

Cycle Process Status

Dashboard, Inbox And Navigation

EDI Processing

Filtering, Grouping And Sorting Data

Nomination Copy

Nomination Quantities By Cycle

Nomination Reconciliation

Preliminary Scheduled Quantities And

Reduction Reason Detail

Search And Advanced Search

Storage Contract Balance

Storage Netting

TMS Moblie

Zone Percentage

Zone Percentage Impact During Final Cycle TMS Training Videos Overview

Date Requested: Sep 03 2025 6:50 AM

The links below provide a video overview of navigation functions, new features and enhancements within TMS.

Dashboard, Inbox And Navigation

Search And Advanced Search

Filtering, Grouping And Sorting Data

Cycle Process Status

Nomination Copy

Nomination Quantities By Cycle

Nomination Reconciliation

Preliminary Scheduled Quantities And Reduction Reason Detail

Storage Contract Balance

Storage Netting

EDI Processing

TMS Mobile

Zone Percentage

Zone Percentage Impact During Final Cycle

Weekend Guidance



- Posted every Thursday afternoon or prior to a holiday weekend during the heating season to notify customers of Northern's requirements for the Carlton Resolution and SOL days
 - Carlton Resolution Carlton percentage will never increase through the weekend, but it may be reduced
 - SOL If an SOL is required for any of the three days, an SOL will be called for the entire weekend to protect customers from negative DDVCs
 - SMS percentage on SOL days may fluctuate based on evolving conditions, but any change will always be an increase and never a decrease



TSP Name: Northern Natural Gas Company	Post Date/Time: 11/25/2024 03:00 PM
TSP: 784158214	Notice Effective Date/Time: 11/27/2024 09:00 AM
Notice ID: 083729	Notice End Date/Time: 12/01/2024 08:59 AM
Notice Type: Pipeline Conditions	For Gas Day(s): 11/27/2024 - 11/30/2024
Subject: HOLIDAY WEEKEND OUTLOOK NOVEMBER 27 - 30, 2024	Notice Status: Initiate
Critical: N	Required Response Indicator Description: 5-No response required
Location: MARKET AND FIELD AREAS	
Notice Text:	
	of decisions regarding nominated volumes, and to assist customers in scheduling their transportation and a upcoming holiday weekend. Based on the temperatures and system conditions that are currently forecast in Limitation (SOL) status are shown below.

The Carlton sourcing obligation will be as follows for the Market Area:

- Gas Day Wednesday, November 27, 2024, will be 0%
- Gas Day Thursday, November 28, 2024, will be 0%
- Gas Day Friday, November 29, 2024, will be 0%
- . Gas Day Saturday, November 30, 2024, will be 0%

SOL and related System Management Service (SMS) status will be as follows:

No SOL

For information regarding storage constraints refer to the Storage Nomination Guidance on the At a Glance web page.

If you have any questions, please contact your customer service or marketing representative.

Continuous Improvement



- Empowered Teams
 - Cultivate a collaborative, accountable work environment
 - Promote transparent communication and constructive feedback within the team
 - Prioritize continuous learning and professional growth
- Forward-Thinking Strategies
 - Conduct routine process evaluations and quality checks
 - Inspire innovation and creative problem-solving
 - Embrace practices that help us stay adaptive and responsive
- Meaningful Outcomes for Customers
 - Smarter solutions through deeper expertise within the team
 - Clear, honest and forthright communication with reduced missteps
 - Prepared team ready to accelerate innovation to serve customers
- Commitment to Excellence
 - Northern remains dedicated to strengthening its customer service team by equipping them with the tools and support needed to deliver best-in-class service

Customer Service





Customer Service Managers







Customer Service Business Analysts & Web Manager





Appendix 1 Asset Modernization Program Update

Pipeline Assessment



The Pipeline Assessment program increases the percent of in-line inspectable pipeline mileage and brings Northern Natural Gas closer to industry standards and Pipeline and Hazardous Materials Safety Administration expectations.

- Projects typically include:
 - Installation of inspection tool launcher and receiver facilities
 - Installing tees with guide bars to prevent inspection tools from becoming stuck in the pipeline
 - Replacing plug and gate valves with full-bore valves to allow tool passage
 - Replacing pipe where two internal pipeline diameters create a "lip" that will interfere with inspection tool passage
- These projects require substantial planning and often construction of temporary pipeline bypasses to ensure pipeline outages do not significantly impact customers



Clifton to Beatrice Modification Project



- One of six in-line inspection modification projects completed in 2024
- Allows assessment of 54-miles of 30-inchdiameter pipeline between Clifton, Kansas, and Beatrice, Nebraska
- Required pipeline modifications at 13 sites, including replacing 1,500 feet of 26-inch-diameter pipeline under the Little Blue River in Kansas





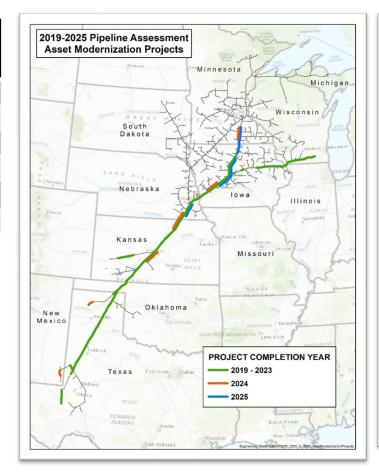


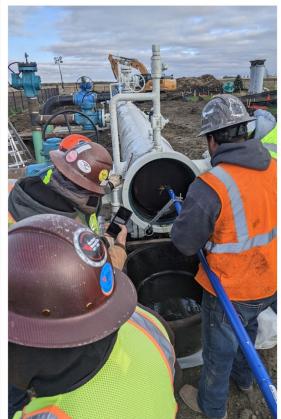
Pipeline Assessment: Upcoming Projects



In 2025, Northern plans to complete five projects, increasing inspectable large-diameter-pipeline by 226 miles, making 79% of the large-diameter pipeline system inspectable.

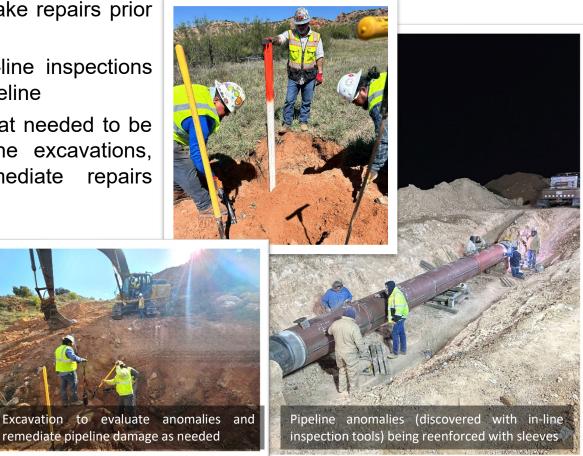
Year	Inspectable Mileage Added	In-line Inspectable percent of Northern's large-diameter system	
2024	208	75%	
2023	234	72%	
2022	342	67%	
2021	494	62%	
2020	300	53%	
2019	308	47%	





In-line Inspection Results

- In-line inspections reveal damage and defects such as dents, deformations, metal loss, and cracks and allows Northern to make repairs prior to a safety or reliability event
- In 2024, Northern completed in-line inspections on approximately 980 miles of pipeline
- Inspections revealed 370 sites that needed to be evaluated further though pipeline excavations, with 150 sites needing immediate repairs (typically reinforcement sleeves)
- These evaluations and timely repairs are critical for maintaining system reliability



Compression Replacement



- In addition to replacing vintage compressor units, related auxiliary equipment and infrastructure are also being addressed. Projects are prioritized based on unit vintage, criticality to pipeline operations, historical reliability concerns, and outlook for future maintainability
- Northern has 94 compression units between 50 and 75 years old. The current plan includes replacement of approximately 45 units over the next ten years, 25% of Northern's 181 total compression units

Completed Projects

Replacement Year	Location	Vintage	Number of Units	Unit Type
2024	Garner, Iowa	1978	1	York 455B (Electric)
2023	Paullina, Iowa	1947	5	Ingersoll Rand 82KVG (Reciprocating)
2022	Brownfield, Texas	1968	1	General Electric Frame 3 Model F (Turbine)
2022	Ogden, Iowa	1951-1953	4	Cooper Bessemer 26-H (Reciprocating)
2022	Spraberry, Texas	1953	2	Ingersoll Rand 412KVG (Reciprocating)
2021	Farmington, Minnesota	1961-1965	5	Ingersoll Rand 616KVT x Qty. 2 Ingersoll Rand 48KVS x Qty. 3 (Reciprocating)
2020	Bushton, Kansas	1968	1	General Electric LM-1500 (Turbine)
2019	Mullinville, Kansas	1968	1	General Electric LM-1500 (Turbine)
2016	Beatrice, Nebraska	1972	1	General Electric LM-1500 (Turbine)



Compression Replacement



Difficulties maintaining vintage units include:

- Obsolescence of spare parts
- Lack of industry service options
- Diminishing quality support of vintage units
- End of life being reached on major unit subcomponents that are not normally replaced or available
- Compliance with current air permits and environmental regulations





Original compressor part (left, temporarily welded for reproduction process) was fractured into pieces. Northern was able to reverse engineer and manufacture the component (right) when a replacement was not available.



Brownfield Compression Replacement





Northern salvaged critical spare parts from the vintage unit, including rotors, casings, and turbine wheels that are not generally available within the industry. These parts will extend the service life of nine additional similar turbines.



Farmington Compression Replacement







Solar [®] Taurus 60, Centaur 40 and Saturn 20 (right) turbine compressor sets replaced three Ingersoll Rand KVS engines (left) and two KVT engines (all 1961-1965 vintage).

Compression Replacement: Current Projects

In 2025, Northern will replace:

- Four 1960s-vintage Worthington ML-7 units at the North Branch, Minnesota, compressor station
- Three 1950s-vintage Clark TLA-6 and two 1960s vintage Allison 501KB units at the Ventura, lowa, compressor station
- One 1960s-vintage General Electric Frame III turbine unit at the Claude, Texas, compressor station











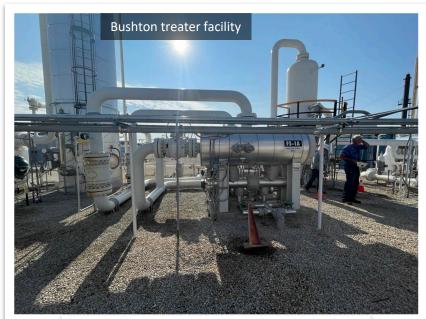
Underground Storage Integrity

- The Underground Storage Integrity category includes projects to ensure compliance with the 2020 PHMSA Safety of Natural Gas Underground Storage Final Rule
- To comply with the regulations, Northern revised its reservoir integrity management plan to include new operating procedures and engineering standards and created the Underground Storage Integrity program
- As part of this program, Northern drilled five additional observation and storage wells in the Redfield, Iowa, underground storage field to monitor gas pressure in non-storage strata and replace aging wells that lack physical integrity
 - An additional injection/withdrawal well is planned for 2026
- In 2025, Northern will complete the Cunningham, Kansas, storage facility northeast containment system to prevent migration of storage gas beyond the limits of the field, akin to the existing north extension area containment system
 - The scope includes the installation of a water injection well, an observation well and conversion of an existing well to function as a water extraction well



Underground Storage Integrity

- Northern continues project planning to support 2026-2027 completion of a natural gas dehydration and hydrogen sulfide treatment facility in Lyons, Kansas
- The project will add a natural gas dehydration and hydrogen sulfide treatment facility to the Lyons underground storage system, with construction anticipated in 2026 and 2027
- Currently, Northern performs de hydration and hydrogen sulfide treatment on the storage gas at a facility in Bushton, Kansas, 16 miles away
- Northern has maintained the 1974-vintagefacility in Bushton, Kansas, but maintenance efforts and costs have increased substantially in recent years, and the facility experiences frequent outages
- A new facility in Lyons will optimize gas treatment at the withdrawal point of the storage field, similar to Northern's other underground storage facilities





Vintage Pipeline Abandonment

- Mechanically coupled and acetylene-welded pipeline technology were used for early pipeline construction but were largely discontinued by 1940

Cracked acetylene weld

- Concerns with mechanically coupled and acetylene-welded joints:
- Subject to failure from ground movement and can be leakprone
- Not compatible with pipeline integrity assessment methods as the pipelines cannot be inspected with in-line inspection tools nor hydrostatically tested

 Much of this pipe is uncoated and is therefore susceptible to external corrosion







Vintage Pipeline Abandonment

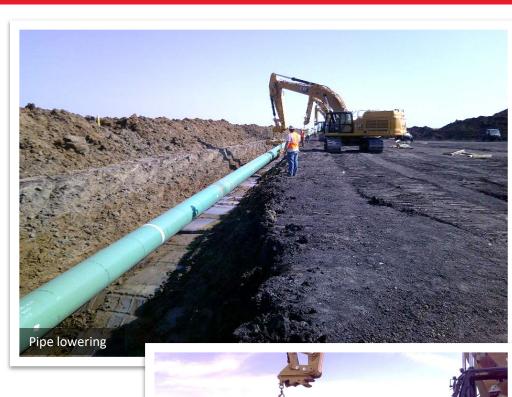
- Removing a pipeline from service and replacing lost capacity are two of the last components of a multiphase project. Prior to pipeline abandonment, necessary projects include:
 - Modifying town border stations and compressor stations to remove connections to the vintage pipeline and adding connections to newly constructed pipelines and potentially other adjacent pipelines
 - Removing tie-over connections between the vintage and adjacent pipelines
 - Relocating or removing farm taps
 - Installing cathodic protection to maintain pipeline integrity
- Projects are phased in multiple years to minimize system disruption
- Following abandonment, the vintage line is removed as practical, considering safety, operational and environmental concerns



Cutting vintage pipeline from branch line

Ogden-to-Ventura A-line Abandonment

- Northern abandoned 85 miles of 1931vintage, 20-inch-diameter mainline between Ogden, Iowa, and Ventura, Iowa, in 2023
- To replace capacity, Northern constructed
 1.6 miles of 30-inch-diameter pipeline
- Ancillary projects included:
 - Removing pipeline tie-overs and block valves at seven sites
 - Disconnecting the vintage line from seven branch lines
 - Modifying approximately 17 town border stations
 - Modifying two compressor stations
 - Removing or relocating ~59 farm taps
 - Installation of cathodic protection



Pipe bending

Ogden-to-Ventura A-line Abandonment













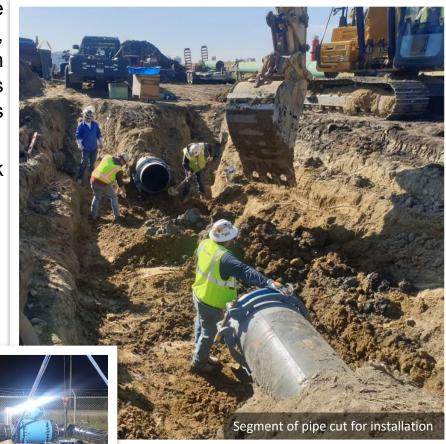


Ventura-to-Farmington A-line Abandonment

Line stop fitting with bypass to temporarily maintain gas flow

- Northern commenced engineering and design work to support the 2028 abandonment of 131miles of 1931-vintage,16-inch-diameter mainline between Ventura, Iowa, and Farmington, Minnesota. In addition to constructing seven miles of 30-inch-diameter pipeline and 10 miles of 36-inch-diameter pipeline, ancillary projects include:
 - Removal of pipeline tie-overs and block valves at 12 sites
 - Modifications to 19 town border stations
 - Modifications to two compressor stations
 - Removal or relocation of ~113 farm taps
 - Modification of cathodic protection systems





Vintage Pipeline Abandonment: Upcoming Projects

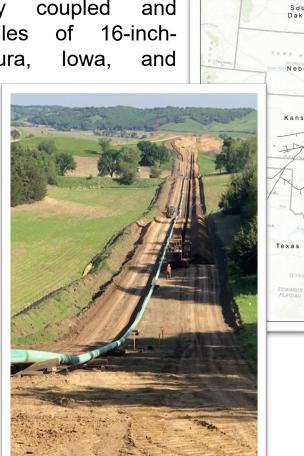


 Prior to the Asset Modernization program, Northern's system had ~900 miles of acetylene-welded and mechanically coupled large-diameter mainlines

 In 2028, Northern anticipates abandoning the last of the major, large-diameter, mechanically coupled and acetylene-welded mainlines: 131-miles of 16-inchdiameter mainline between Ventura, lowa, and Farmington, Minnesota

 In 2025, Northern will abandon six miles of the 1931-vintage Mason City, lowa, branch line and will install 2.7 miles of 10-inch-diameter pipeline

 In 2026, Northern will replace the remaining seven miles of the 10-inchdiameter, 1932-vintage Columbus, Nebraska, branch line





MAOP Reconfirmation

- Since 2019, PHMSA requires MAOP reconfirmation in high consequence areas, moderate consequence areas, and Class 3 locations that operate at or above 30% specified minimum yield strength
- If no pressure test record exists for a pipeline, the MAOP must be reestablished - typically through a pressure test or pipe replacement
- Northern has approximately 603 miles of pipeline within areas of consequence, with 510 miles having adequate records to support MAOP

• Through 2024, Northern reestablished MAOP on 19 miles and plans to complete projects to reestablish MAOP on 26

miles in 2025

 The remaining 48 miles will be completed by 2034 per PHMSA rules





MAOP Reconfirmation

- Approximately 190 reconfirmation projects are planned between 2025 and 2034
- ~60% of the projects are to reconfirm the MAOP of less than 2,500 feet of pipe
- ~10% of the projects are for more than 1 mile of pipeline
- While pressure testing is the preferred option for reconfirmation, this is not always viable:
 - Vintage, mechanically coupled or acetylenewelded pipe will leak and is not suitable for hydrotests
 - In some locations, a failed pressure test would be difficult or dangerous to remediate (under interstates, wetlands, etc.)
 - Pressure testing can require a multi-week pipeline outage in some cases, this will significantly impact customers
- Where appropriate, Northern utilizes project efficiencies, combining project scopes to remediate the MAOP records deficiencies



Rupture Mitigation Valves

- Min
- PHMSA requires installation of rupture mitigation valves, such as an automatic shut-off valve (ASV) or a remote-control valve (RCV), to minimize the volume of gas released from a pipeline in the case of a pipeline rupture, helping to improve public safety and mitigate environmental consequences
- The Final Rule applies to pipelines greater than 6-inches in diameter, constructed after April 10, 2023
- Northern is assessing its recent pipeline construction to ensure compliance with the PHMSA rule and will install rupture mitigation valves or equivalent technologies as needed
- In 2024, Northern spent approximately \$5m on projects to install RCVs on four existing pipelines and plans to spend an average of \$5.8m per year through 2028





