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November 13, 2025

Lisa Felice
Executive Secretary
Michigan Public Service Commission
7109 West Saginaw Highway
Lansing, MI 48917

RE: In the matter of the application of **DTE GAS COMPANY** for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of natural gas, and for miscellaneous accounting authority
MPSC Case No. U-21291

Dear Ms. Felice:

Attached for electronic filing in the above captioned matter is DTE Gas Company's updated Gas Delivery Plan as directed by the Commission's paragraph G in MPSC Order U-21291 dated November 7, 2024.

Very truly yours,

Carlton D. Watson

Digitally signed by Carlton D. Watson
Date: 2025.11.13 09:44:04 -05'00'

Carlton D. Watson

CDW/erb
Attachments

cc: Service List

DTE Gas Delivery Plan

2026-2035

DTE

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The DTE Gas Company ("DTE Gas" or the "Company") has been operating for more than 175 years and currently serves approximately 1.3 million customers across the state of Michigan. To help communicate long-term capital investment plans to the Michigan Public Service Commission (MPSC) and other interested parties, the Company has updated its 10-year Gas Delivery Plan (GDP), which was last updated with the Company's last rate case filed in January 2024. This plan is grounded in the DTE Gas vision to prioritize safe and reliable natural gas service and maintain that service in an affordable and environmentally responsible way for generations of Michiganders to come. As a 10-year plan, however, many of the longer-term projections within are estimates and will necessarily evolve to reflect changing opportunities and challenges in the system, industry, and communities. This latest version of the Company's GDP includes an updated overview of DTE Gas' operations and investments, as well as a refined outlook on the energy transition and environmental responsibility.

The three key objectives of the DTE Gas plan are:

Safety and Reliability:
To have zero safety or system reliability incidents

Affordability:
To maintain affordable natural gas service for customers

Environmental Responsibility:
To make measurable progress toward the Company's 2050 net zero target for upstream and internal (utility distribution) related activities and reduce customer-use emissions by approximately 35% by 2040

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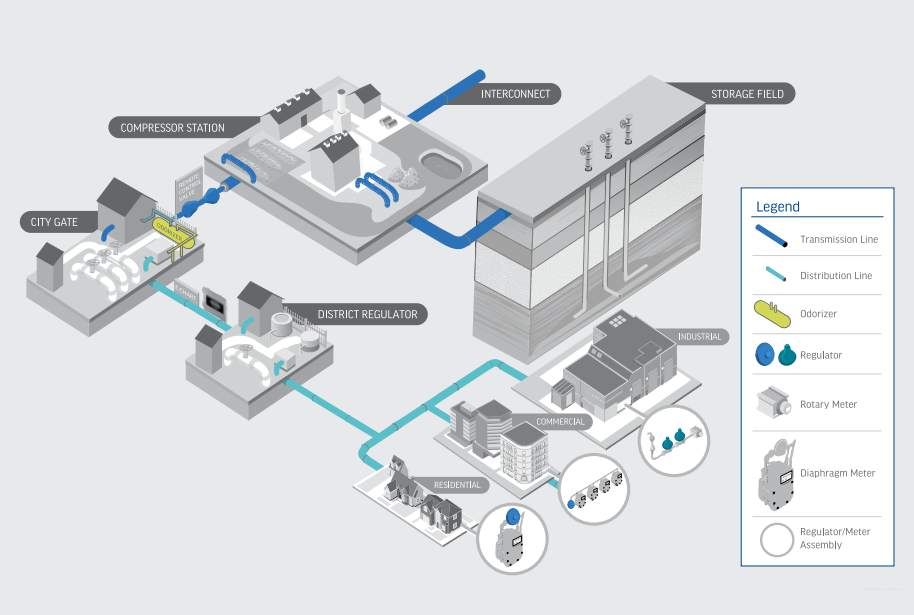
The DTE Gas System

DTE Gas delivers natural gas through approximately 23,500 miles of pipeline, which includes approximately 2,000 miles of transmission and 21,500 miles of distribution pipeline. The Company also owns and operates six compressor stations and four underground storage fields. These storage fields contain 158 active (injection, withdrawal, and observation) wells, holding up to 139 Bcf (billion cubic feet) of working natural gas, and are strategically located throughout the state. Each storage field has unique operating characteristics that are explained further in this plan. The Company also has multiple points throughout the transmission system where it can receive natural gas supply including more than 30 major interconnects with nine different pipeline companies. An illustrative diagram of the natural gas system can be seen in Figure 1.

Natural Gas System – Illustrative – Figure 1



Gas Safety

DTE Gas is proud of its long-standing, 176-year history of operating safely which is supported by a strong safety culture and robust pipeline safety programs. The Company is committed to continually identifying and mitigating system risks and improving its pipeline safety programs. One mechanism DTE Gas utilizes to identify and mitigate risks is through a Pipeline Safety Management System (PSMS). The implementation of PSMS is considered to be an industry best practice.

The first step in mitigating system risk is to identify and assess potential risks to the system. DTE Gas completes a comprehensive pipeline safety review of its system annually, incorporating risk modeling results, recommendations from the PHMSA (Pipeline and Hazardous Materials Safety Administration), NTSB (National Transportation Safety Board), MPSC, AGA (American Gas Association), TSA (Transportation Security Administration), and other recognized subject matter experts. As a result of this work, the Company has developed a prioritized list of known industry-related risks and associated threats that could impact the safety and reliability of the DTE Gas pipeline system (See Table 1 on next page). The Company recognizes the importance of reducing overall risk to the DTE Gas pipeline system through robust countermeasures which are implemented via the Company's 10-year capital investment plan. Even though the Company's 10-year capital investment plan does include system-critical routine projects and system expansion, the majority of the capital investment is driven by the identified risk mitigation countermeasures.

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Top Industry Risks and Associated DTE Gas Countermeasures – Table 1

Industry Risk	DTE Gas Countermeasures
Gas Supply & Deliverability	Belle River Dehydration Unit Redundancy
	Installation of Additional System Interconnect
	Transmission Renewal Program: Van Born Project
	Implementation of a Distribution System Planning Team
	Implementation of a Probabilistic Risk Assessment Model
	Corrosion Control Program
	Compressor Renewal Program
Transmission Pipeline Failure	Transmission Renewal Program
	Records Management Program
	Transmission Maximum Allowable Operating Pressure (MAOP) Records Remediation
	Class 1 and Class 2 Facility Integration into GIS and the Probabilistic Risk Model
	ILI Expansion Program
Distribution Gas Leaks	Gas Renewal Program
	Meter Assembly Check
	Leak Remediation
	Ground Movement Mitigation Program
	Distribution Renewal Program
	Distribution MAOP Records Remediation
	Cross Bore Inspections
System Overpressure	Risk-Based Regulator Station Replacement Program
	Legacy Regulator Remediation/Replacement
Storage Well Unintended Gas Release	Well Renewal Program
	Well Pad Expansion Program
Cyber/Physical Security	DTE Gas Site Security Program
Excavation Damage	Damage Prevention Field Team

Demand and Supply

The focus of the demand and supply plan is to successfully execute key strategies that support the Company's commitment to safe, reliable, and affordable natural gas service along with environmental stewardship. Three key strategies to support this commitment are: (1) Utilize natural gas storage assets to manage system demand throughout the year, (2) Ensure reliability of natural gas supply through interconnects and transport agreements from multiple supply basins, and (3) Execute a purchasing strategy to minimize price volatility associated with extreme weather events.

In addition to these three strategies, the expansion of the DTE Gas natural gas service territory supports both the affordability of natural gas to new customers who connect to the Company's system and assists existing customers natural gas costs by providing an avenue for the Company to spread its fixed costs over a larger customer base. The Company also plans to further enhance its energy efficiency programs to help customers better manage their natural gas usage.

The Distribution System

The DTE Gas distribution system consists of more than 21,500 miles of main, approximately 1.2 million service lines, approximately 2,150 district regulator stations, and over 1.3 million customer meter sets. Leaks in the distribution system are a top industry risk that the Company has prioritized. The factors that drive this risk include pipeline age, pipeline material type, and the presence of inside meters. The DTE Gas key countermeasures to mitigate distribution gas leaks are its Gas Renewal (GRP), Meter Assembly Check (MAC), Leak Remediation, Distribution Renewal, Ground Movement Mitigation, and Cross Bore Inspection programs. It is important to note that the GRP, which includes main renewal projects and meter move out grids, is the Company's largest capital initiative and accounts for approximately 40% of the DTE Gas' capital expenditure over the next 10 years. The Company's Distribution Integrity Management Program (DIMP) risk model is also utilized to prioritize distribution risk mitigation projects.

The Transmission System

The Company's transmission system consists of approximately 2,000 miles of pipeline spanning the Upper and Lower Peninsula. There are two key industry risks associated with transmission assets – Gas Supply and Deliverability, and Transmission Pipeline Failure. The main drivers of these risks are a lack of system redundancy and potential system integrity issues. The key countermeasures for mitigating these risks are the Transmission Renewal Program (TRP), additional system redundancy, additional interconnects, an In-Line Inspection (ILI) Expansion Program, Stress Corrosion Cracking (SCC) pipeline assessments, and a Maximum Allowable Operating Pressure (MAOP) Records Remediation and Records Management Plan. The Company's Transmission Integrity Management Program (TIMP) risk model is utilized to prioritize transmission risk mitigation projects.

The Storage System

DTE Gas owns four underground natural gas storage facilities with 158 active storage wells in the Lower Peninsula. These storage facilities can hold a total of 139 Bcf of natural gas (working gas), which is critical to support DTE Gas system resiliency and reliability throughout the year. To ensure the natural gas supply is uninterrupted, DTE Gas utilizes its underground natural gas storage integrity management plan to identify and prioritize risks to storage assets, including another top industry risk – storage well unintended gas release. Potential contributors to this industry risk include well entry loss of control, wellhead shear, and well casing mechanical failure. The Company has three key countermeasures to mitigate these industry risks, which include well entry preventative maintenance, a Well Pad Expansion Program (WPEP), and a Well Renewal Program (WRP).

The Compression System

DTE Gas has six compressor stations throughout the state featuring 46 compressor units totaling approximately 177,000 horsepower (HP) of compression capacity. The Company's compression assets provide critical compression necessary to inject and withdraw natural gas from storage and move gas across the system, ensuring reliable gas deliverability to customers. DTE Gas has strong preventative maintenance programs to enable sustained equipment reliability; however, approximately half of the Company's compressor units were put into service over 60 years ago. There has been increasing difficulty with sourcing spare parts due to obsolescence. As a result, DTE Gas is developing a Compression Replacement Program (CRP) to replace older assets.

The Energy Transition

The MI Healthy Climate Plan, released in 2022, set a statewide goal for carbon neutrality by 2050, emphasizing sector-specific strategies to reduce GHG emissions. DTE Gas has established aggressive GHG emission reduction targets and is prioritizing the lowest cost solutions to meet those targets. Since 2011, the Company has reduced Scope 1 emissions by 44% by replacing older, leak-prone natural gas pipelines. DTE Gas has been reducing emissions from the gas it purchases through the purchase of responsibly sourced gas (RSG) and working with industry groups to promote best practices across the natural gas value stream. For DTE Gas' customers' emissions, the Company has achieved an 18% reduction in average usage per customer since 2005, primarily through energy efficiency programs. DTE Gas has supported the MI Healthy Climate Plan in additional sectors as well. In 2021, DTE Gas began purchasing forestry offsets that support improved management of forests in Michigan and support the natural lands carbon sink identified in the Plan. Additionally, DTE Gas has purchased renewable natural gas (RNG) to capture emissions from waste and offset natural gas in our pipelines. These affordable solutions supporting sectors recognized in the MI Healthy Climate Plan are options to support an economy-wide net zero target while maintaining affordable energy for our customers.

DTE Gas is also considering the future. As mentioned, DTE Gas has prioritized affordable emission reduction solutions and plans to continue to adjust its strategies to support this scenario. To more aggressively reduce emissions in the built environment, DTE Gas has determined that RNG and hybrid gas/electric options are currently more affordable than full electrification options and generally support continued safe operation of gas infrastructure. However, DTE Gas is prepared to offer solutions that align with changing demand, regulatory, or legislative requirements. The Company continues to support energy efficiency and emission reduction strategies for its 1.3 million customers, aligning its operations with the broader goals outlined in the MI Healthy Climate Plan.

KEY COUNTERMEASURE MILESTONES

This 10-year GDP supports the Company's ability to manage the top industry risks while meeting its objectives of providing safe, reliable, affordable, and environmentally responsible natural gas service to its customers. By 2035, DTE Gas expects to have achieved the following key countermeasure milestones:

1. **Distribution:** Moved most inside meters outside and remediated over 2,000 additional miles of legacy pipeline.
2. **Transmission:** Single-source risk mitigated for approximately 250,000 customers and the ability to assess 99% of HCA (High Consequence Areas) pipeline mileage with ILI.
3. **Storage:** Expansion of well pads to mitigate wellhead shear risk for 134 well pads and renewal of 21 low cement top wells.
4. **Compression:** Continuation of the preventive maintenance program and the development and execution of the Compression Replacement Program.

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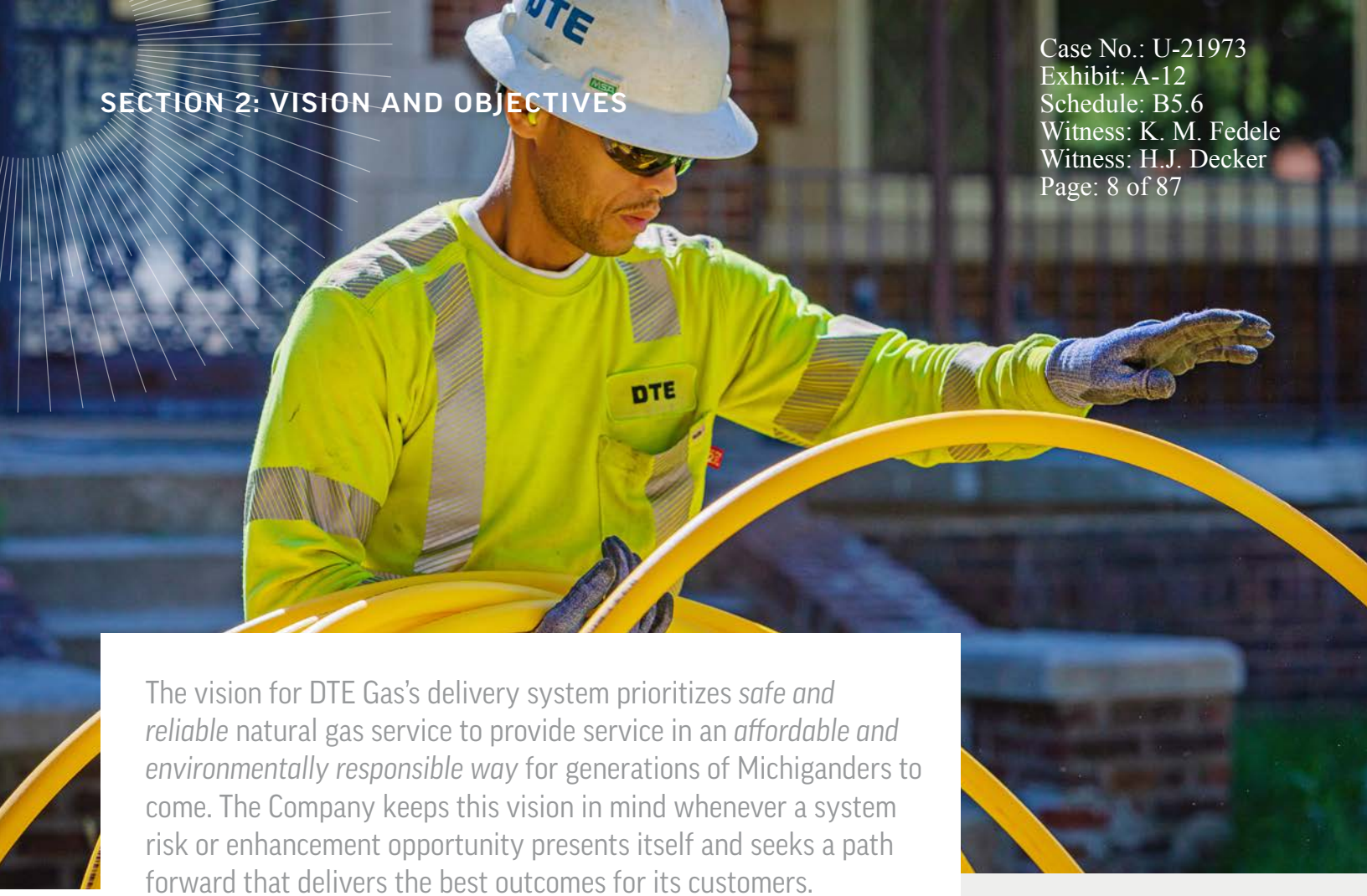


The vision for DTE Gas's delivery system prioritizes *safe and reliable* natural gas service to provide service in an *affordable and environmentally responsible way* for generations of Michiganders to come. The Company keeps this vision in mind whenever a system risk or enhancement opportunity presents itself and seeks a path forward that delivers the best outcomes for its customers.

Safety and Reliability

The safety and reliability of the DTE Gas system are top priorities for the Company.

Foundational to DTE Gas' pipeline safety commitment is its adoption of the American Petroleum Institute's (API) Recommended Practice (RP) 1173, a Pipeline Safety Management System (PSMS). A PSMS is a scalable and flexible framework that applies a systematic approach to proactively managing pipeline safety risks and ensuring system reliability. The framework encompasses a continuous improvement model for pipeline safety improvement measured by five levels of organizational maturity (Planning, Developing, Implemented, Sustaining, and Improving).

The goal of the Company's PSMS is to ensure the safety and reliability of its natural gas system by identifying, assessing, and mitigating pipeline safety hazards. This promotes adherence to established procedures and quality standards, enhances the Company's ability to effectively respond to unforeseen disruptions should they occur, and ensures DTE Gas can continue to provide excellent and safe service to the customers and communities it serves.

Core to a PSMS are 10 key elements (which are listed in Figure 2), such as risk management, operational controls, record keeping and safety assurance, as outlined in API RP 1173 (illustrated in Figure 2). By implementing and continuously enhancing its PSMS, the Company strengthens existing programs and initiatives that are already in place, as well as surfaces new areas of opportunity. The Company's implementation plans include the deployment of robust Information Technology (IT) and Operational Technology (OT) solutions as necessary.

PSMS Maturity Levels

Planning
Level 1

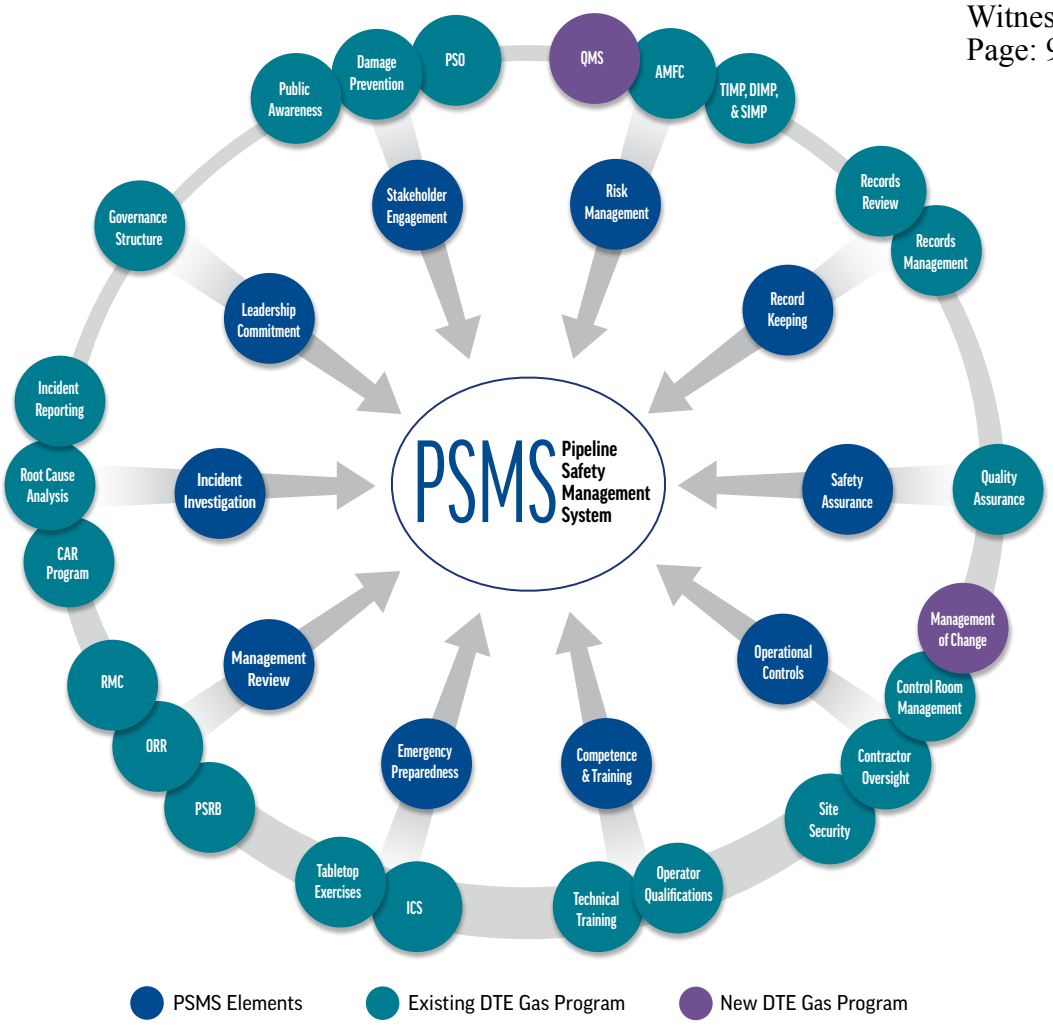
Developing
Level 2

Implemented
Level 3

Sustaining
Level 4

Improving
Level 5

PSMS Key Elements and DTE Gas' Programs – Figure 2



The DTE Gas PSMS is anchored by three key pillars: Governance, Culture, and Risk Management. Each pillar plays a key role in the program's success *(discussed in more detail in the Gas Safety section).*

DTE Gas also follows a comprehensive approach to identifying and prioritizing known industry risks to natural gas systems based on the probability of occurrence and potential consequence. The recommendations from the MPSC's State Energy Assessment (SEA) report have been included in the DTE Gas system risk assessment, and countermeasures for each risk have been developed and prioritized to reduce the overall risk to the system. The top industry risks to be addressed within the Company's GDP are listed below, and will be discussed in detail in later sections:

- Gas Supply/Deliverability
- Transmission Pipeline Failure
- Distribution Gas Leaks
- System Overpressure
- Storage Well Unintended Gas Release
- Cyber/Physical Security
- Excavation Damage

The execution of DTE Gas safety and reliability initiatives is measured via metrics reviewed and assessed as part of the PSMS governance. The integration of the 10 PSMS elements within existing programs helps accelerate and advance the Company's existing pipeline safety culture.

The DTE Gas PSMS Key Pillars
Figure 3

Governance

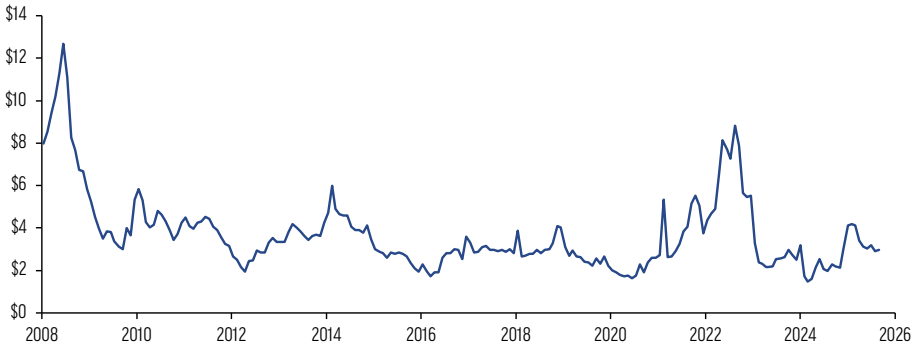
Culture

Risk Management

Affordability

The affordability of delivered natural gas is a key priority for the Company and is top-of-mind for customers. The cost of delivering natural gas consists of two elements – the cost of the natural gas commodity and the cost to deliver it safely and reliably. Michigan experienced a significant decrease in natural gas costs over the last decade through 2021, which was associated with an increase in shale gas production (See Figure 4). This phenomenon provided the opportunity for DTE Gas to make strategic investments in its natural gas delivery system to improve both safety and reliability, while also reducing average residential monthly bills (See Figure 5 - Average customer bills dropped more than 30% from 2008 to 2021). In August 2022, due to higher demand, the Henry Hub natural gas price was $8.81/MMBTU, the highest commodity cost since 2009. The April 2025 Henry Hub natural gas price was $3.42/MMBTU. With global gas supply and demand uncertainty and repeated severe winter events causing disruptions in natural gas markets, volatility is expected to continue to impact pricing.

Henry Hub Natural Gas Historic Prices ($/MMBTU) – Figure 4

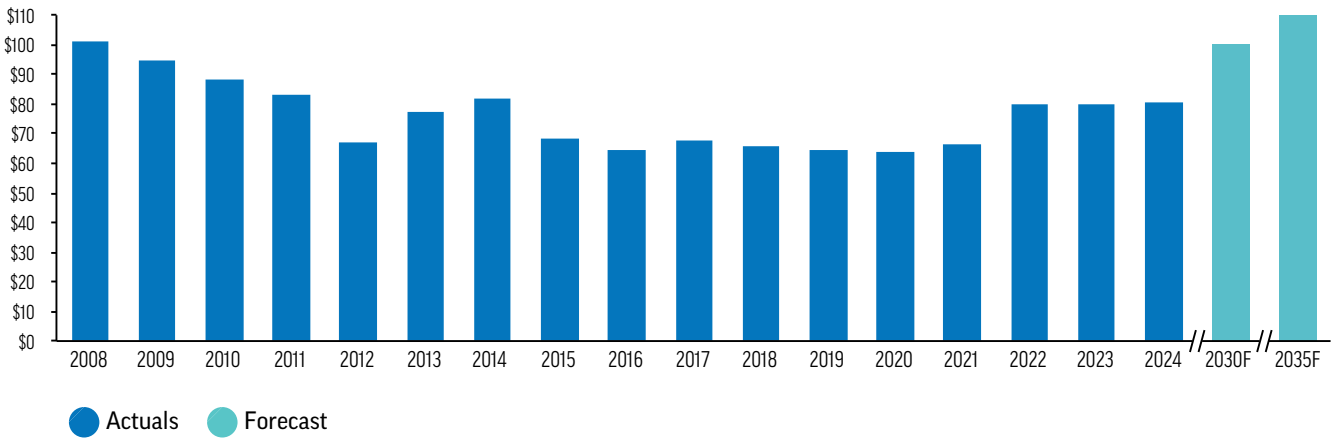


The Company's primary mechanism to mitigate the impact of volatile commodity costs on customer bills continues to be its purchasing strategy, which ensures the Company has secured 75% of its requirements for the upcoming heating season at the beginning of each calendar year.

As DTE Gas looks toward the next 10 years, the Company expects continued pricing volatility. These swings combined with investments to maintain the safety and reliability of its natural gas system are expected to drive modest increases in the average monthly customer bills (See Figure 5). These necessary investments are planned to be made at a measured and risk-based pace to ensure monthly bills remain affordable for customers.

DTE Gas continuously adds customers to its system, allowing the Company to spread fixed delivery costs over a larger customer base, thereby lowering costs for all customers. As an added benefit, natural gas system expansion often enables local increases in economic development as natural gas typically lowers the overall energy bill for new residential customers and facilitates commercial development through the increased availability of more affordable natural gas within communities.

DTE Gas Average Residential Monthly Bills – Figure 5



DTE Gas recognizes that even the most affordable energy bills can be too much for some customers. DTE Gas continues to support the Company-developed Low-Income Self-Sufficiency Program (LSP), which helps customers manage energy costs through structured payment plans, arrears forgiveness, and energy efficiency support. DTE Gas also administers programs developed through state regulatory processes, such as the Low-Income Assistance Credit (LIA) and the Residential Income Assistance Credit (RIA). Recently, the Company's energy efficiency efforts have provided additional focus on low-income customers to support ongoing savings on their energy bills.

Affordability of the Company's natural gas is vital to ensure that customers can access reliable energy without financial strain. As the sector faces increasing demands for infrastructure modernization, safety enhancements, and decarbonization, long-term planning becomes essential. Continued support from policy regulators is a key enabler in this process.

By maintaining clear, consistent, and predictable regulatory frameworks–along with mechanisms such as Investment Recovery Mechanism (IRM) and infrastructure investment incentives, regulators empower natural gas utilities to plan and invest with confidence. This predictability not only supports strategic decision-making but also helps minimize project costs by improving forecasting accuracy, reducing financial risk, and increasing the likelihood that projects are completed efficiently within the planned timeline. Ultimately, continued regulatory support will assist the Company in meeting future energy needs safely, efficiently, and sustainably while keeping services affordable for consumers.

Environmental Responsibility

The DTE Gas environmental responsibility journey took a major step forward in 2011 when the Company outlined several initiatives to safeguard the environment and reduce greenhouse gas (GHG) emissions.

In 2021, the Company updated its own emission reduction targets to further support the broader statewide effort, which included the following goals: (1) Net zero GHG emissions by 2050 for its internal gas utility operations, (2) Net zero GHG emissions by 2050 for all the natural gas DTE Gas purchases, and (3) Achieve a 35% reduction in GHG emissions by 2040 for the natural gas used by the Company's customers. In totality, these commitments are estimated to reduce more than seven million tons of CO2e (CO2 equivalent) emissions annually by 2050 (compared to 2005 levels). These GHG goals are expected to not only reduce methane and carbon dioxide emissions from DTE Gas operations but are also expected to result in lower GHG emissions across the entire natural gas delivery system (See Figure 6).

DTE Gas Value Chain Sustainability Approach – Figure 6

Supplier emissions NET ZERO

- **Net zero greenhouse gases by 2050 goal.**
- By 2050, DTE Gas plans to reduce emissions from natural gas the Company purchases by **~1.3 million metric tons of GHGs** per year through practices to procure cleaner gas from suppliers and carbon offsets.

DTE Gas emissions NET ZERO

- **Net zero greenhouse gases by 2050 goal.**
- By 2050 DTE Gas plans to reduce emissions from internal operations by **~1.4 million metric tons of GHGs** per year through infrastructure upgrades, operational improvements, and carbon offsets.

Helping customers reduce their carbon footprint

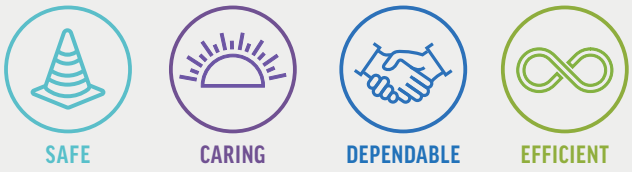
- **Reduce GHGs 35% by 2040** (from 2005).
- By 2040, DTE Gas plans to reduce emissions customer use by **~4.3 million metric tons of GHGs** per year through energy waste reduction programs, an enhanced voluntary emissions offset program, and advanced technologies.

Measuring Progress Towards the Company's Vision and Objectives

DTE Gas has established objectives and goals within each of the three key areas of its vision. The Company plans to continuously measure its progress towards this vision to ensure it is on track to achieve the desired 10-year outcomes in each area (See Table 2).

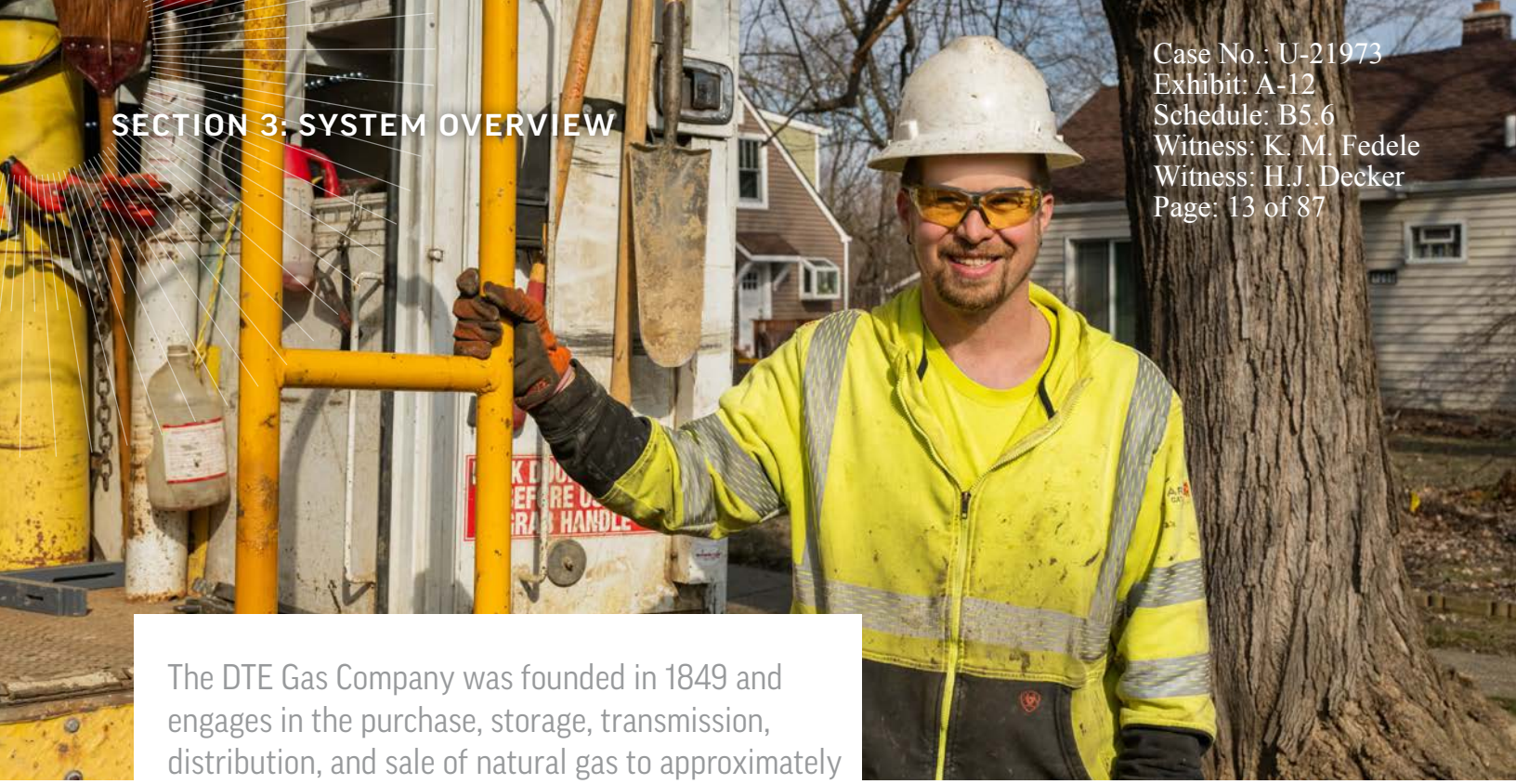
Table 2

	Safety & Reliability	Affordability	Environmental Responsibility
Objective	Zero safety or system reliability incidents	Maintain affordable natural gas service for customers	Make measurable progress toward the Company's GHG emission reductions target
Strategies	• Continue renewal of higher-priority distribution and natural gas transmission assets • Utilize system-wide probabilistic risk assessments • Implement and continue to mature PSMS to prioritize and minimize natural gas industry risk • Implement a quality management system and targets to achieve ISO 9001 certification	• Prioritize customer affordability as the Company evaluates future capital investments • Offset affordability pressures through customer growth and operational efficiency programs	• Achieve net zero for both internal (scope 1) and natural gas supplier-related GHG emissions by 2050 (scope 3 categories 1, 3, and 4) • Reduce customer GHG emissions by 35% by 2040 (scope 3 category 11)
10-Year Outcomes	Achieve PSMS maturity of 4.5	Deliver a safe and reliable natural gas product to customers at an affordable price	Achieve a 40% reduction in scope 1 (internal) GHG emissions in line with the scope 1 DTE Gas 2050 net zero GHG goal



Service Keys

DTE Gas is leveraging its "Service Keys" to demonstrate that the Company will always strive to keep customers and its employees *Safe*, be *Caring* in everything the Company does, and deliver products and services in a *Dependable* and *Efficient* manner. This document highlights major processes that demonstrate these Service Keys to show the commitment DTE Gas has to Service Excellence.

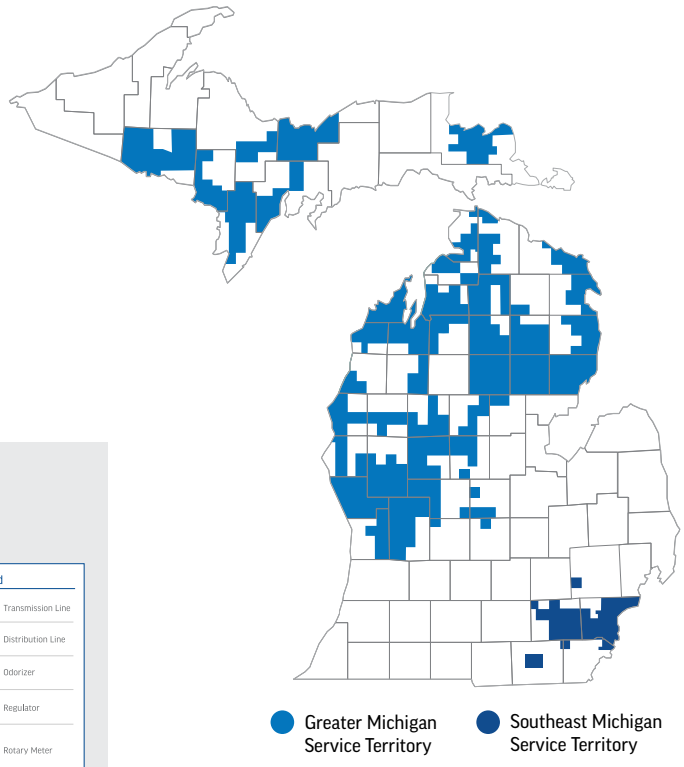


The DTE Gas Company was founded in 1849 and engages in the purchase, storage, transmission, distribution, and sale of natural gas to approximately 1.3 million customers spread between Greater and Southeast Michigan.

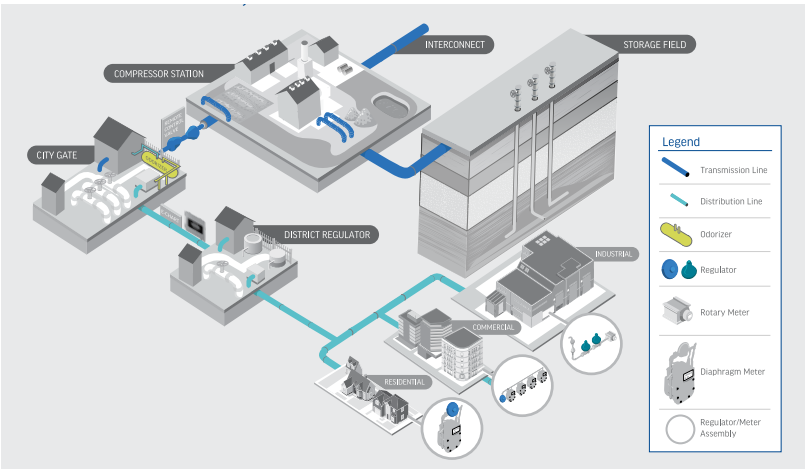
DTE Gas System Overview

DTE Gas delivers natural gas through approximately 23,500 miles of pipeline, which includes approximately 2,000 miles of transmission pipeline and 21,500 miles of distribution pipeline (See Figure 7). The Company owns and operates six compressor stations totaling approximately 177,000 HP, as well as four underground natural gas storage fields with 158 active storage wells with a working natural gas capacity of 139 Bcf (See Figure 9).

DTE Gas Service Territory – Figure 7



Natural Gas System – Illustrative – Figure 8



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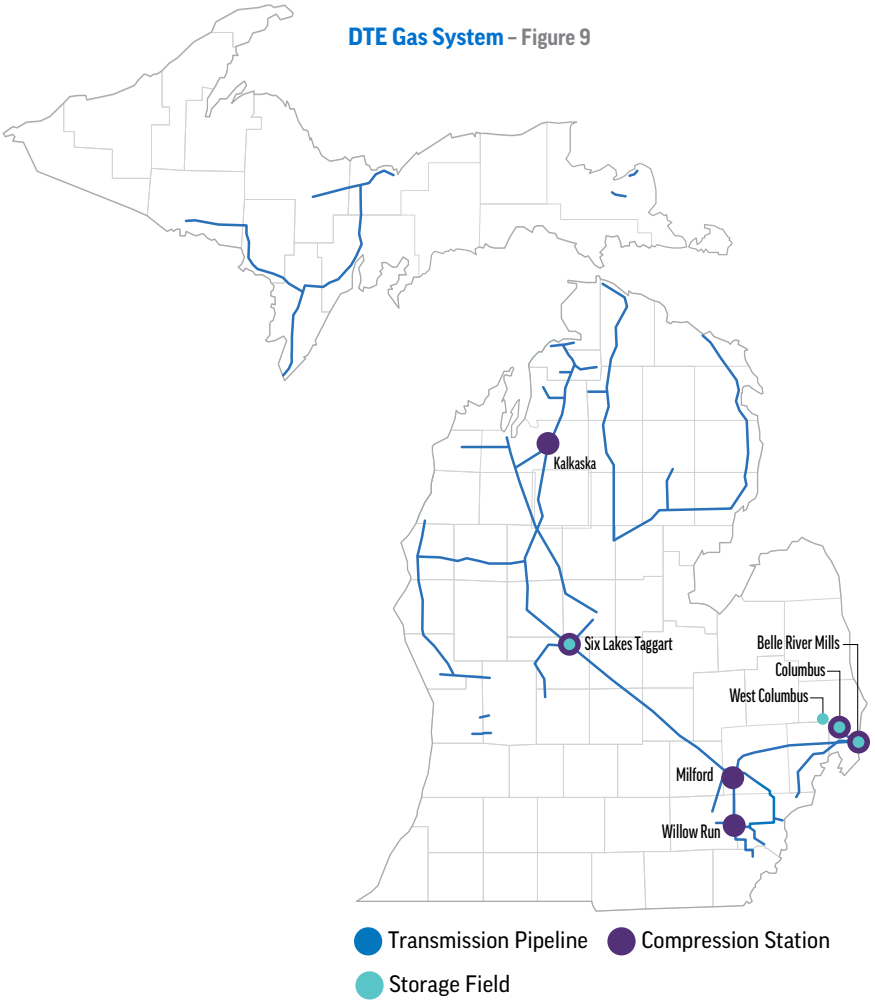
DTE Gas has more than 30 natural gas interconnects with local gas producers and gathering pipelines, interstate/intrastate transmission pipelines, other Michigan utilities, and storage companies. The Company's transport contracts and interconnections enable a diverse supply of natural gas into its system, which helps provide reliable service to its customers. The DTE Gas transmission system generally operates between 300 and 1,000 pounds per square inch gauge (psig) but can operate as high as 1,800 psig in storage headers. The natural gas transmission system operates with pipelines up to 36" in diameter and carries large volumes of natural gas around the system for the purposes of:

- Supplying natural gas to or from interconnecting parties.
- Injecting natural gas into and withdrawing from its four storage fields.
- Delivering natural gas to DTE Gas and other natural gas companies' distribution systems for use by residential, commercial, and industrial customers.

The DTE Gas compressor stations provide additional pressure for storage operations and deliverability to gate stations. Gate stations reduce pressure from the transmission system to the distribution system (generally operating between 2 and 300 psig), which supplies natural gas to customers at ¼ psig pressure for a typical residential home after further pressure reduction at the house's regulator.

DTE Gas System – Figure 9

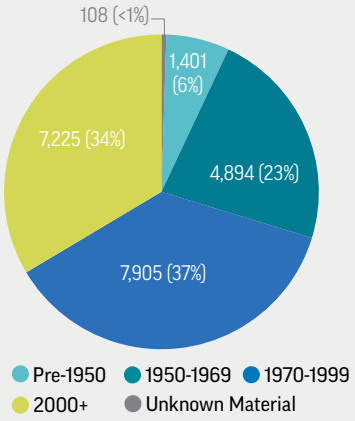


Distribution

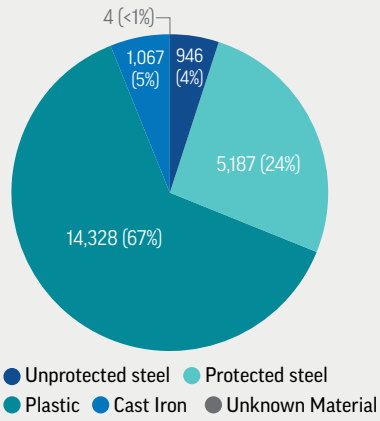
Approximately 30% of the Company's current natural gas distribution system main mileage was installed before issuance of the federal pipeline safety standards in 1970 (See Figure 10). A majority of the distribution system main mileage is comprised of modern plastic material but some significant portions are made up of unprotected steel (approximately 4%) and cast-iron pipe (approximately 5%) (See Figure 11). The Company's plan is to eliminate this aged portion of its distribution system through the continuation of its Gas Renewal Program.

An even higher percentage (approximately 60%) of the Company's approximately 1,300 miles of high-pressure (≥100 psig) steel distribution main was installed pre-1970 (See Figure 12). As covered later in this document, DTE Gas has a Distribution Renewal Program to prioritize these high-pressure distribution pipelines for remediation.

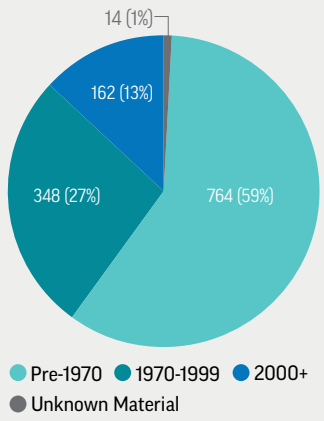
Distribution System Mileage by Installation Decade – Figure 10



Distribution System Mileage by Material – Figure 11



High-Pressure Distribution Steel Main Miles (100 Psig or More) by Installation Year – Figure 12



Transmission

Pipeline Class Definitions – Table 3

Classes	Definition
Class 1	Any class location unit* that has 10 or fewer buildings intended for human occupancy.
Class 2	Any class location unit that has between 11 and 45 buildings intended for human occupancy.
Class 3	Any class location unit that has 46 or more buildings intended for human occupancy, or An area where the pipeline lies within 100 yards (300 feet) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period.
Class 4	Any class location unit where buildings with four or more stories above ground are prevalent.

*An onshore area that extends 220 yards (200 meters) on either side of any continuous one mile (1.6 kilometer) length of pipeline

A large majority (77%, or 1,499 miles) of the Company's transmission system was installed before 1970, prior to the issuance of the federal pipeline safety standards (See Figure 13). In order to assure the integrity of the Company's transmission system pipelines and especially the vintage lines (pre-1970), DTE Gas has implemented an In-Line Inspection (ILI) Expansion Program to increase the coverage of transmission integrity assessments utilizing the best available tools to detect pipeline anomalies. Additionally, DTE Gas has developed a Transmission Renewal Program (TRP) to prioritize transmission system pipelines that need upgrading or replacement.

Approximately 12% (236 miles) of the DTE Gas transmission system is located in High Consequence Areas. Breakdown of the transmission system by Class Location is shown in Figure 14.

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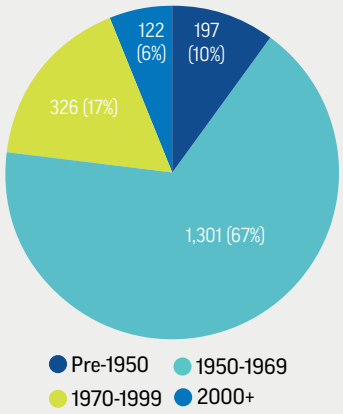
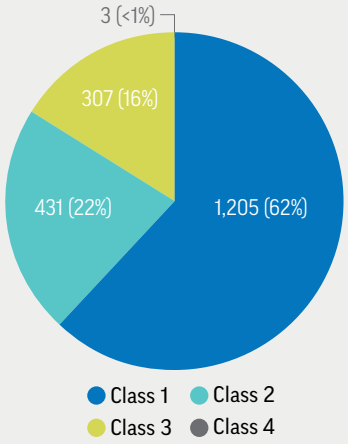
Transmission System Mileage by Installation Decade – Figure 13



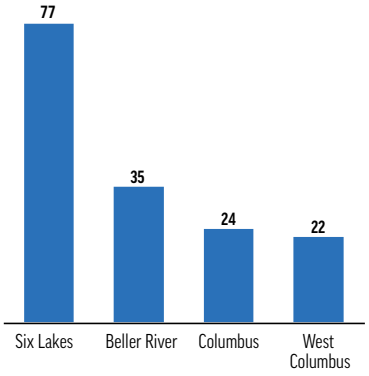
Transmission System Mileage by Class (1,2,3, and 4) – Figure 14



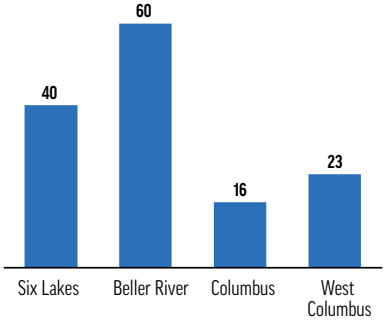
Storage

DTE Gas has operated natural gas storage since 1953 and currently owns four natural gas underground storage fields in Michigan: three in Southeast Michigan and one in Central Michigan (See Figure 15). Each storage field has unique operating characteristics. The Six Lakes (Taggart) field, located in Montcalm County (Central Michigan), is operated in a base load manner. The other three fields – Columbus, Belle River Mills, and West Columbus – are located on the east side of the state in St. Clair County. Columbus is a base load field, Belle River is an intermediate field, meaning that it can operate as a base load or peaker field, and West Columbus is operated as a peaker field. When full, these four fields hold a combined 139 Bcf of working natural gas (customer gas). See Figure 16 and Table 4. All four fields utilize depleted natural gas reservoirs that originally held natural gas for millions of years making this geology ideal for natural gas storage service. The geology provides excellent containment of the stored natural gas and its deliverability, which allows for all the natural gas to be withdrawn in the coldest of winter seasons. The four DTE Gas storage fields have been operating for 50 years or more, and contain 158 active storage wells connecting the transmission piping at the surface to the underground reservoirs. Each of the DTE Gas natural gas storage fields has been operating for 50 years or more.

Active Wells by Storage Field – Figure 15



Storage Field Working Gas Capacity (Bcf) – Figure 16



Storage Field In-Service Year – Table 4

Storage Field	Six Lakes	Belle River	Columbus	West Columbus
Base Gas (Bcf)	33	20	5	4
Working Gas (Bcf)	40	60	16	23
Active Wells	77	35	24	22
Storage Field In-Service Year	1953	1965	1971	1973

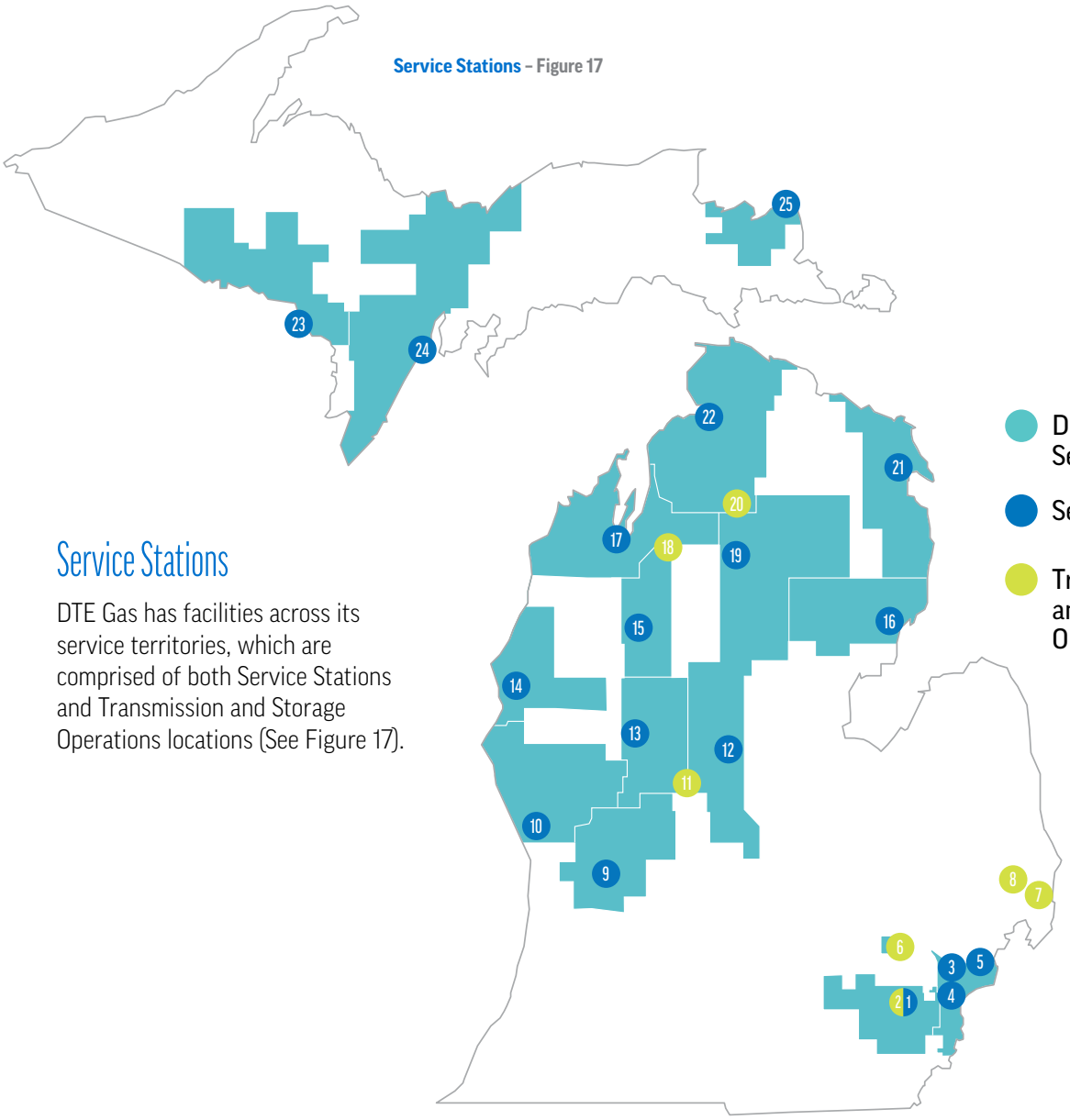
Compression

DTE Gas has approximately 177,000 horsepower (HP) of compression distributed across six compressor stations around its service territories. Compressor stations are used to increase the pressure of natural gas for transportation within the Company's system and for withdrawal from or injection into the four storage fields. When natural gas in a pipeline reaches the same pressure as in a storage field or adjoining pipeline, compression is used to enable the continued flow of gas.

Service Stations

DTE Gas has facilities across its service territories, which are comprised of both Service Stations and Transmission and Storage Operations locations (See Figure 17).

Service Stations – Figure 17



1 Michigan Avenue
2 Willow Run
3 Coolidge
4 Allen Road
5 Lynch Road
6 Milford
7 Belle River Mills
8 Columbus
9 Wealthy Sation
10 Muskegon
11 Six Lakes (Taggart)
12 Mt Pleasant
13 Big Rapids
14 Ludington
15 Cadilac
16 Tawas
17 Traverse City
18 Kalkaska
19 Grayling
20 Gaylord
21 Alpena
22 Petoskey
23 Kingford
24 Escanaba
25 Sault Ste. Marie

As covered in the *Vision and Objectives* section, the safety and reliability of the natural gas delivery system are top priorities for the Company. DTE Gas has a 176-year history of operating safely, aided by a strong safety culture and robust pipeline safety programs. The Company continually reinforces this culture and strengthens its programs to mitigate risks, such as those recently faced by industry pipeline operators in the United States. To further deliver on the Company's commitment to pipeline safety, DTE Gas has implemented and continues to mature its Pipeline Safety Management System (PSMS).

Pipeline Safety Management System (PSMS) Overview

In 2015, the American Petroleum Institute (API) issued Recommended Practice (RP) 1173 called "Pipeline Safety Management Systems" (PSMS), which outlines a systematic approach to managing pipeline safety.

In 2019, the American Gas Association (AGA), recognizing a PSMS as an industry best practice, approved a resolution recommending that all AGA members implement a PSMS within three years. The MPSC also extended its support of PSMS in 2019 by recommending, through the State Energy Assessment, that natural gas utilities continue to develop and enhance Pipeline Safety Management Systems to support and prioritize safety programs. DTE Gas is committed to pipeline safety, recognizes the importance of safety management systems, and has committed to adopting API RP 1173: PSMS.

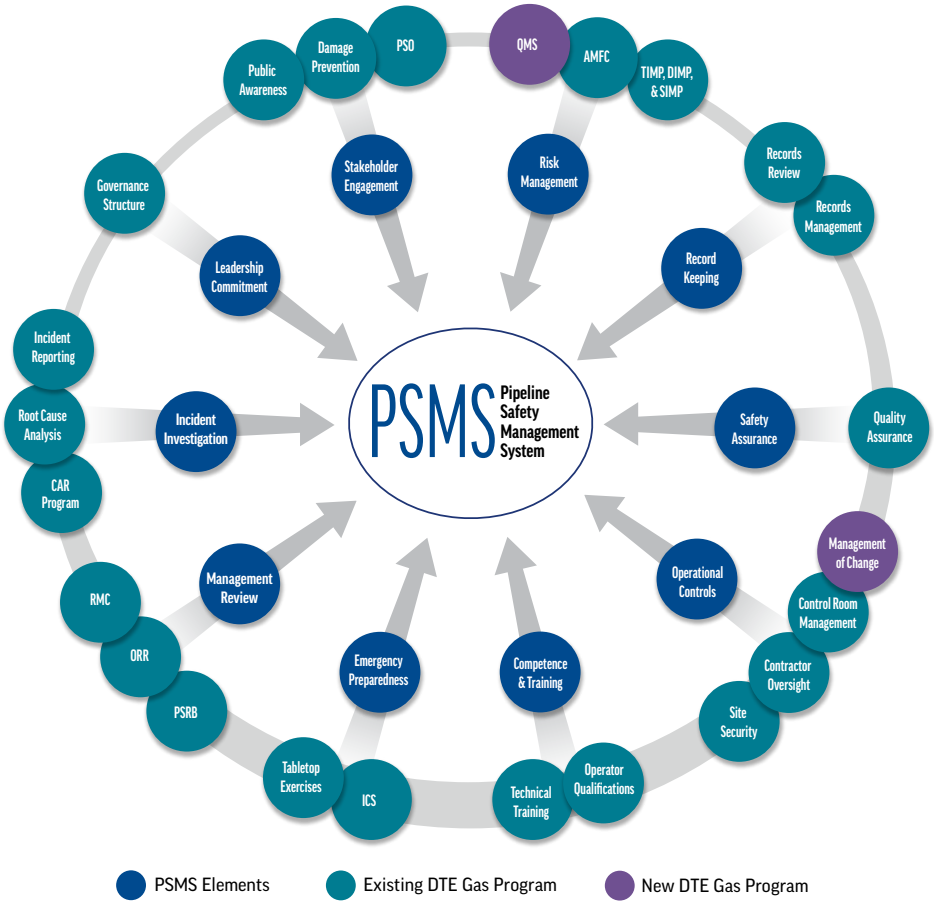
Figure 18 displays the 10 key elements of a PSMS. Many aspects of the PSMS elements are already in place at DTE Gas through various Company initiatives and programs, such as Damage Prevention, Asset Maintenance Foundational Capabilities (AMFC), and the Transmission, Distribution, and Storage Integrity programs. Adoption and implementation of API RP 1173 for PSMS continues to enhance and strengthen the Company's existing programs and expand into opportunistic areas for improvement through Records Management, Quality Assurance and Quality Management, Management of Change (MOC), the Pipeline Safety Review Board (PSRB), Pipeline Safety Observations (PSO), Incident Investigations, and a Corrective and Preventative Action (CAPA) Program.

DTE Gas plans to continue to make improvements to its pipeline safety programs and advance the maturity of its PSMS as described below.

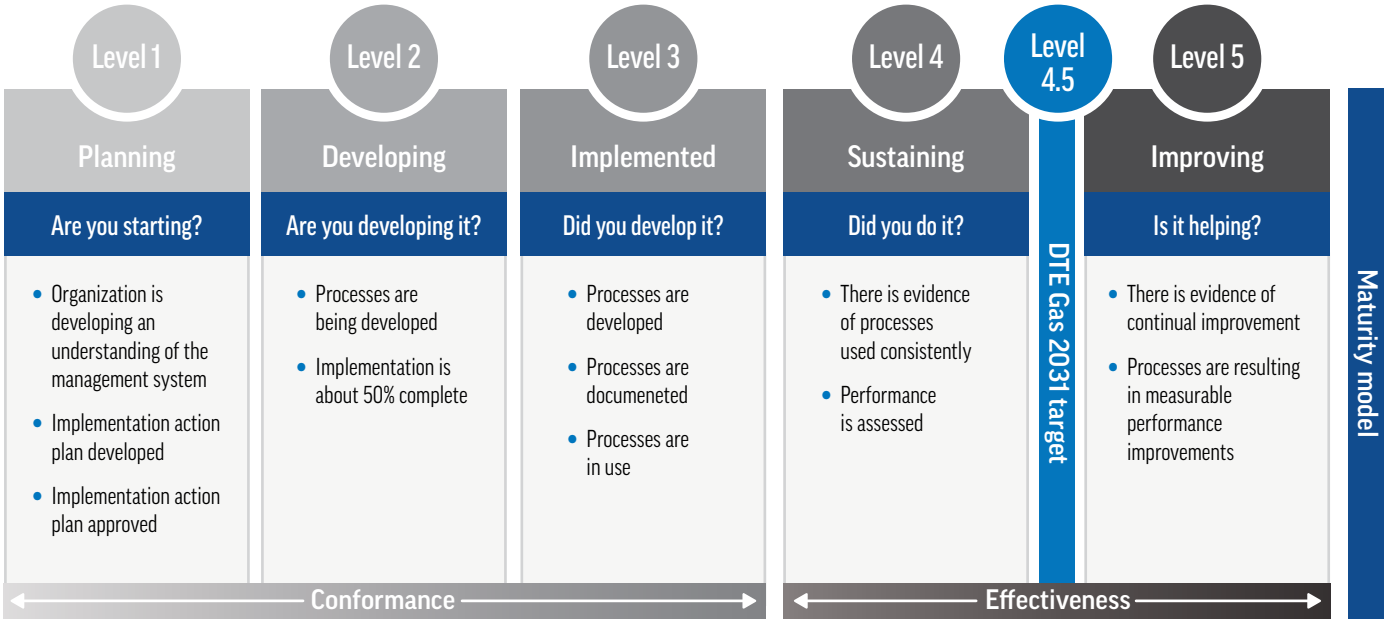
PSMS Maturity

DTE Gas utilizes a maturity model to assess its progress against API 1173 requirements. A PSMS is a journey of continuous improvement in pipeline safety measured by five levels of organizational maturity: 1) Planning, 2) Developing, 3) Implemented, 4) Sustaining, 5) Improving (See Figure 19). DTE Gas has a 10-year vision to reach a minimum maturity Level of 4.5 for its PSMS by demonstrating continual and measurable performance improvements.

PSMS Key Elements and DTE Gas' Programs – Figure 18



Pipeline SMS Maturity Model and Tools – Figure 19



DTE Gas PSMS Pillars

The DTE Gas PSMS is anchored by three key pillars: Governance, Culture, and Risk Management.

Governance

Culture

Risk Management

Governance

The Company's governance establishes the framework, leadership accountability, and oversight required for an effective PSMS. Leadership Commitment is a key element of a successful PSMS. DTE Gas recognizes success in continually improving pipeline safety requires a strong leadership presence that sets expectations across the organization, demonstrates commitment, and establishes accountability throughout the organization. It also includes policy and procedure development, stakeholder engagement, performance measurement, and continuous improvement to ensure structured decision making, risk management, and regulatory compliance.

As DTE Gas continues to mature its PSMS, governance guides progress through multiple avenues, such as executive management reviews that evaluate the progress of top PSMS risk mitigation projects, and monthly pipeline safety meetings with applicable Company leadership to share key industry and company events and lessons learned. It also includes the PSRB, comprising managers from across the organization, who review, provide feedback on and approve outcomes from the PSO, incident investigation and Corrective Action processes. Finally, the Company's effort to implement a robust Quality Management System (QMS) targets to further advance the Company's PSMS by providing well-established processes for documentation, internal auditing, and management reviews.

Culture

The DTE Gas pipeline safety culture is strengthened through the Company's commitment to safety, learning and continuous improvement. The path forward is aligned with the Company's employee safety culture and built through promoting employee engagement, training, open communication, and leadership commitment. DTE Gas' strong safety culture is based on a strong foundation of proactive, safety-focused programs and initiatives, including PSOs, Corrective and Preventative Actions (CAPA), workforce training and operator qualifications (OQ), requiring contractor PSMS, and industry collaboration.

The DTE Gas PSO is a system that enables employees to surface potential pipeline safety hazards and safety improvement ideas for Company prioritization and follow-up. The incident investigation process ensures the appropriate level of analysis is performed by a team of DTE Gas employees and leadership based on an event's severity. The CAPA program tracks all corrective actions resulting from PSO, incident investigations and audits, ensuring timely and effective completion of identified action items. These items are all reviewed and approved by the established PSRB.

DTE Gas is actively involved in various industry groups and initiatives, providing the opportunity for peer-to-peer knowledge sharing, integration of industry lessons learned and evaluation of best practices to build a strong pipeline safety system and culture. Active participation in the AGA's various committees and workshops assists the Company ability to track industry trends and emerging technology. DTE Gas is also an active participant in an industry Safety Management System (SMS) Collaborative, a group of peer natural gas utilities sharing best practices and providing guidance and insights.

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Risk Management

The third key pillar of the DTE Gas PSMS is Risk Management, through which potential risks are identified, analyzed and mitigated to ensure natural gas pipeline safety and reliability. It encompasses risk assessment, management of change, incident investigation and emergency preparedness, ensuring a proactive approach to risk prevention and response. Identified risks are evaluated and countermeasures developed to manage the risks through preventative controls, monitoring, and mitigation measures.

RISK IDENTIFICATION AND ASSESSMENT

DTE Gas utilizes an annual review process to ensure industry risks are regularly evaluated and incorporates risk model results and recommendations from PHMSA, NTSB, MPSC, AGA, the MPSC SEA Report, TSA, and other subject matter experts. A risk matrix (Figure 20) is used to analyze the natural gas industry risks based on the potential frequency and consequence of occurrence. The result is a list of DTE Gas pipeline system safety risks categorized by top industry risks with related countermeasures.

The DTE Gas MOC process was enhanced and expanded in 2024, in compliance with API RP 1173, PHMSA Mega Rule for Transmission Pipeline System as well as with other regulatory requirements for high consequence areas, gas measurement and controls, and cyber security. MOC is designed to facilitate a cross-functional review and approval of potential changes to DTE Gas' pipeline system, prior to implementation, to mitigate human performance errors, ensure changes maintain or enhance the safety of the pipeline system, and document the changes for continued safe and reliable operation and maintenance.

Finally, DTE Gas' incident investigation process utilizes the Conger & Elsea Root Cause Analysis (RCA) and Management Oversight & Risk Tree (MORT) methodology, which is recognized as the industry best practice. The DTE Gas incident investigation process includes the tracking and mitigation of risks surfaced through investigations of near miss, non-reportable and reportable incidents via the DTE Gas Corrective Action program.

Risk Matrix Example – Figure 20

HAZARD SEVERITY OUTCOME					FREQUENCIES						
					Almost Impossible	Rare	Possible	Likely	Very Likely	Highly Likely	Almost Certain
Consequences (1 to 7)	Health & Safety	Customer Impact	Financial Loss and Regulatory Response	Environmental Impact							
					1A	1B	1C	1D	1E	1F	1G
					2A	2B	2C	2D	2E	2F	2G
					3A	3B	3C	3D	3E	3F	3G
					4A	4B	4C	4D	4E	4F	4G
					5A	5B	5C	5D	5E	5F	5G
					6A	6B	6C	6D	6E	6F	6G
					7A	7B	7C	7D	7E	7F	7G

RISKS AND COUNTERMEASURES (TABLE 5)

While the potential for an incident is remote, DTE Gas recognizes the importance of reducing overall risk to its natural gas system by prioritizing a series of robust countermeasures. These countermeasures are the primary drivers of the Company's 10-year capital investment plan. Specifically, DTE Gas is investing more than $5.5B on PSMS risk mitigation projects in its 10-year capital plan to ensure the safety, reliability, and affordability of its natural gas system. These countermeasures are described within their respective asset plan (distribution, transmission, storage, and compression) sections in this GDP, with the exception of the system-wide countermeasures that are described on the next page.

SAFE

DEPENDABLE

Top Industry Risks and Associated DTE Gas Countermeasures – Table 5

Industry Risk	DTE Gas Countermeasures
Gas Supply & Deliverability	Belle River Dehydration Unit Redundancy
	Installation of Additional System Interconnect
	Transmission Renewal Program: Van Born Project
	Implementation of a Distribution System Planning Team
	Implementation of a Probabilistic Risk Assessment Model
	Corrosion Control Program
	Compressor Renewal Program
Transmission Pipeline Failure	Transmission Renewal Program
	Records Management Program
	Transmission Maximum Allowable Operating Pressure (MAOP) Records Remediation
	Class 1 and Class 2 Facility Integration into GIS and the Probabilistic Risk Model
	ILI Expansion Program
Distribution Gas Leaks	Gas Renewal Program
	Meter Assembly Check
	Leak Remediation
	Ground Movement Mitigation Program
	Distribution Renewal Program
	Distribution MAOP Records Remediation
	Cross Bore Inspections
System Overpressure	Risk-Based Regulator Station Replacement Program
	Legacy Regulator Remediation/Replacement
Storage Well Unintended Gas Release	Well Renewal Program
	Well Pad Expansion Program
Cyber/Physical Security	DTE Gas Site Security Program
Excavation Damage	Damage Prevention Field Team

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System Wide Countermeasures

Probabilistic risk model

DTE Gas has implemented probabilistic risk models to improve the process of prioritizing risk mitigation projects across its natural gas systems (storage, transmission, and distribution). A probabilistic risk model calculates risk by multiplying the frequency of failure (for example, leaks per mile per year) by the consequence of failure (effects on people, property, the company, and the environment) and expresses the risk output in dollars per year. The quantitative output enables risk comparison across DTE Gas' systems for a more objective, prioritized remediation. Probabilistic modeling is recognized as an industry-leading best practice for managing pipeline safety.

The DTE Gas implementation of probabilistic risk models is consistent with recommendations in the MPSC SEA final report issued on September 11, 2019. In this report, as part of the Natural Gas Recommendation, specifically section 9.3.1.2 Natural Gas, Natural Gas Recommendation G-2, the Commission recommended that "utilities work towards incorporating the use of probabilistic risk models to prioritize system investments."

DTE Gas is calibrating the results of its risk models across the Distribution, Transmission, and Underground Storage asset classes. Once complete, prioritization of PSMS risks and countermeasures covered by the models are updated through the Company's annual Risk Review process and documented on the Company's Risk Register. This allows DTE Gas to update its 10-year capital investment plan and focus the Company's capital investments on the highest-priority mitigation projects.

The Company's 10-year capital plan includes capital expenditures in 2026 for software licensing renewal, which recurs every three years.

Corrosion Control Program

Corrosion control is an essential component of DTE Gas' long-term strategy to enhance the safety, reliability, and environmental performance of the natural gas distribution and transmission systems. Corrosion Control oversees the monitoring of external and internal corrosion on buried pipelines, along with atmospheric corrosion affecting exposed pipelines and related facilities. Achieving effective corrosion prevention requires proper design, installation, continuous monitoring, and routine maintenance of these assets. This includes the use of specialized coatings and cathodic protection systems to safeguard metallic piping against corrosion-related deterioration. The key aspects of achieving this are:

CORROSION ASSESSMENT

- Annual surveys are conducted to verify that cathodic protection levels across gas distribution and transmission systems remain sufficient. This includes monitoring for Alternating Current (AC) interference on transmission pipelines, a newly required practice that involves tracking potential electrical disruptions from nearby utilities, including electric power systems.
- Pipeline systems are continuously monitored and assessed for environmental factors–including soil resistivity, moisture levels, and natural gas composition–to evaluate the likelihood of corrosive conditions.

MITIGATION & PREVENTATIVE MEASURES

- Coatings are applied to both above-grade and below-grade piping to protect against atmospheric and external corrosion.
- Biocide treatments and corrosion inhibitors are injected into compressor station piping to prevent Microbially Induced Corrosion (MIC), thereby protecting both piping and valves. This proactive approach helps extend equipment lifespan and reduce maintenance costs.
- When cathodic protection levels are insufficient, remediation is carried out by installing cathodic protection systems on buried pipes using sacrificial anodes (Distribution Systems) or through rectifiers and ground beds (Transmission Systems). For transmission pipelines requiring remediation due to AC interference, AC mitigation systems are installed to ensure safe dissipation of electrical current into the ground, thereby preserving the integrity of the pipeline's cathodic protection. The development of data centers in areas where transmission pipelines and high-voltage power lines are co-located is expected to increase AC interference, necessitating enhanced AC mitigation measures.

The 10-year capital plan includes $179M in capital expenditures to implement and support Corrosion Control Program.

Transmission MAOP Records Remediation and Records Management Plan

Traceable, verifiable, and complete (TVC) records are essential to an effective PSMS by ensuring pipelines currently in service meet federal and state safety requirements. Through industry benchmarking, DTE Gas has determined that a pipeline facility records vision must be created as a path forward to mature its records management.

Based on industry benchmarking, DTE Gas has selected the Association of Records Managers and Administrators (ARMA) Generally Accepted Recordkeeping Principles (GARP) model as a foundation for maturing its records management. ARMA is an industry-leading information management body recognized for records management best practices.

The Company has established a dedicated records management department to drive the adoption and deployment of the ARMA model. This department is responsible for records management initiatives such as the review and remediation of record defects. In addition, DTE Gas has created a central database to store all gas facility records and a workflow system to track records from creation to storage.

The records management group is focused on four core aspects of the Company's records management:

1. Develop DTE Gas' records management program and develop plans to mature the utilization of the GARP principles.
2. Continuously enhance the central records database and processes established in the record management platform D2 (also known as Documentum). This includes incorporating new technologies to further streamline gas facility records workflow and document storage for transmission and distribution facility records.
3. Support the remediation of legacy record defects to ensure identified records gaps are remediated as required by federal and state requirements.
4. Develop and execute training and communications to build a culture of effective records management.

The overall goal of the records management group is to create and implement strategies to ensure gas facility records are TVC. Effective records management reduces risk by increasing accuracy, accessibility, and resource efficiency, and by improving public, employee, and environmental safety.

The 10-year capital plan includes $9M in capital expenditures to implement and support records management.

TRANSMISSION RECORDS

There are several ongoing transmission records initiatives within DTE Gas. The biggest focus for transmission records is the review and remediation of records defects as required by new federal rules.

Part 1 of the PHMSA new MEGA rule 49 CFR (code of federal regulations) 192.624, which became effective on July 1, 2020, requires operators to develop a MAOP reconfirmation plan by July 1, 2021, for piping in HCA, Class 3, and Class 4 areas without TVC records. DTE Gas has developed a detailed MAOP reconfirmation plan and is currently executing it.

Although the rules require remediation of half of identified record defects by 2028 with the remaining half by 2035, DTE Gas intends to remediate these record defects ahead of the required timeline. Currently, the Company anticipates spending up to $4M per year in operations and maintenance (O&M) for record defects remediation and has remediated about 66% (3.56 miles) of the natural gas pipeline miles that require records remediation.

Regarding the identified transmission pipeline non-HCA record defects, the Company plans to address such defects once the HCA, Class 3, and Class 4 record defects are addressed.

Lastly, DTE Gas has chosen the records management software, D2 (or Documentum), as its central database for storing, securing, and maintaining all MAOP records. Technical solutions and processes for managing records from creation to storage were developed and implemented at the end of 2021. These solutions are broken down into a records workflow, which includes utilizing tools to create, review, and approve records with built in Quality Assurance (QA) and Quality Checks (QC) in the process. In 2024, DTE Gas successfully completed a project to enhance the D2 database by collecting, sorting, scanning, and uploading hardcopy MAOP records which included attribution for improved searchability. The ongoing efforts now focus on migrating digital MAOP records into the D2 repository.

DISTRIBUTION RECORDS

Although DTE Gas has been reviewing pipeline transmission records since 2011, per a 2011 PHMSA advisory bulletin, the Company extended its review to higher pressure distribution piping (≥100 psig) related records in 2013. Based on new MEGA rules issued in 2021, the review was paused in 2021 to ensure compliance with the new MEGA transmission pipeline rules which required TVC record for new projects and to focus the Company's attention on the remediation of records defects as required by the new rules.

Regarding the distribution record defects that have been identified to date, the Company plans to combine these defects with the defects in transmission non-HCA, Class 1, and Class 2 records to develop one risk-ranked list of records defects for remediation.

Ultrasonic meter technology

As DTE Gas' existing AMI and AMR installations are quickly approaching the end of battery life and new meter technology has become more widely available. DTE Gas is exploring replacing existing residential diaphragm meters with ultrasonic cellular meters. The ultrasonic meter offers a variety of benefits ranging from high accuracy, reduced maintenance, and enhanced safety features:

- Solid state design with no moving parts ensures consistent and reliable performance over time and reduces the need for maintenance and calibration, minimizing human error.
- Designed to be less susceptible to mechanical failure.

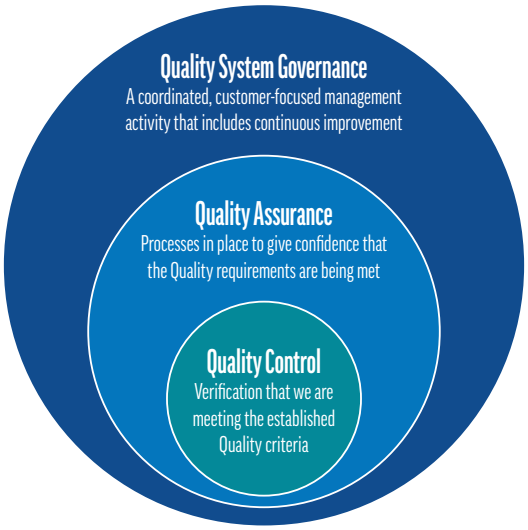
Quality Management System

DTE Gas has established a Gas Quality Department to implement a Quality Management System (QMS), based on the ISO 9001:2015 framework. The Company recognizes the benefits of harmonizing QMS and PSMS to both deliver quality products and services and offer ever-improving levels of pipeline safety for the benefit of the organization and its customers. For DTE Gas, it enhances operational efficiency, reduces waste, and ensures compliance with regulatory requirements. For customers, it means receiving consistent, high-quality services that meet their needs and expectations. By prioritizing quality, the Company can continue to build trust and strengthen its reputation as a reliable energy provider.

DTE Gas' QMS is structured around three key components as illustrated in Figure 21: Quality System Governance, Quality Assurance, and Quality Control.

- **Quality System Governance** involves establishing a framework of policies, procedures, and responsibilities that guide the Company's quality efforts. This ensures that quality is integrated into every aspect of operations and that there is a clear accountability structure in place. Setting high standards and continuously monitoring DTE Gas' performance ensures that processes are aligned with its strategic goals.

QMS Key Components – Figure 21

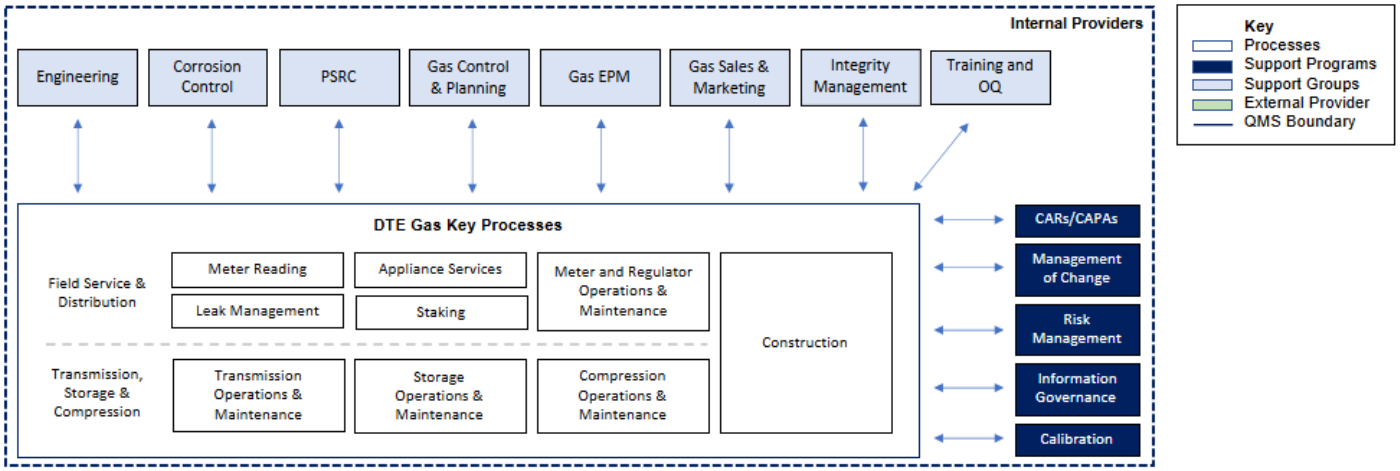


- **Quality Assurance** focuses on preventing defects and ensuring that processes are capable of consistently producing high-quality outcomes. This involves regular audits, process evaluations, and continuous improvement initiatives. By proactively identifying and addressing potential issues, DTE Gas can minimize the risk of non-conformance and enhance the reliability of its services.
- **Quality Control** is the operational aspect of DTE Gas' QMS, involving the inspection and testing of its products and services to ensure they meet established standards. This includes routine checks, performance evaluations, and corrective actions when necessary. By maintaining rigorous quality control measures, the Company can ensure that its customers receive safe, reliable, and high-quality natural gas services.

As part of our QMS implementation, the Company has identified 9 key processes, 8 support groups and 5 support programs where process adherence plays an important role in both Quality and Pipeline Safety (See Figure 22).

The 10-year plan for Quality includes, on average, $2M per year in O&M and capital expenditures.

QMS Boundary– Figure 22

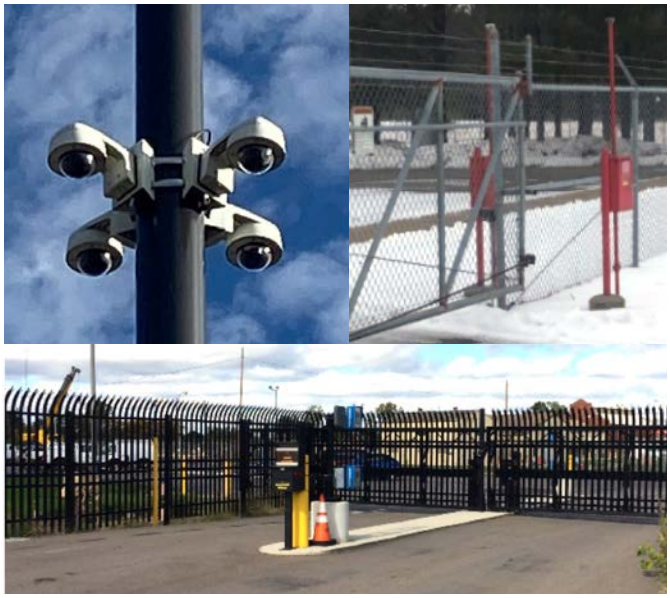


Site Security Program

In light of ongoing reports of security incidents affecting critical infrastructure, including natural gas facilities, both in the U.S. and globally it is crucial for DTE Gas to mitigate risks associated with equipment damage, service disruptions, and safety events stemming from physical or cybersecurity threats. To address these concerns, DTE Gas has implemented a comprehensive site security program aimed at ensuring the safety of employees and the public, maintaining reliable service for customers, preventing financial repercussions from security-related incidents.

The DTE Gas Site Security Program focuses on three key areas: physical security, cybersecurity, and facility security.

1. **Physical security:** This includes the installation and upgrading of fences, automation and enhancement of main access gates, upgrades to egress gates, installation of cameras and alarms for intrusion detection, access control through a badging system, and a new key control system for securing critical buildings.
2. **Cybersecurity:** DTE Gas has embarked upon a multi-year Cybersecurity Maturity Program to drive its overall cybersecurity maturity. This program ensures continuous compliance with API Standard 1164 2nd Edition for Pipeline SCADA Security, as well as current and future TSA Pipeline Security Directives or regulations, including the recently proposed TSA Notice of Proposed Rule Making (NPRM) for cyber risk management and reporting requirements. This program is designed to enhance the company's cybersecurity posture and protect critical infrastructure from evolving threats. Thus far, DTE Gas implemented, and now maintains, TSA's mandated cybersecurity measures for any Information Technology (IT) and Operational Technology (OT) systems that could result in operational disruption. Measures in this area include (but are not limited to) replacing field equipment with enhanced cybersecurity capabilities, deploying secure transient computer assets in the field, improved login and access management systems, malicious threat protection, software for detecting unauthorized connections to OT networks, and vulnerability management through software and hardware patching.
3. **Facility security:** To protect against vehicular impacts at the Company's vulnerable natural gas facilities, upgrades include the installation of crash-rated guardrails, bollards, interlocking concrete barriers, and protective fences.



From 2019 to 2024, DTE Gas invested $19.7 million in the Site Security Program and plans to invest an additional $1.4M in 2025 and $1.5M in 2026 to complete the program. Given the dynamic cyber threat landscape, ever-changing cybersecurity regulations, and the complexity and extensive nature of both, DTE Gas anticipates continuous investments to maintain security compliance activities and to modernize its security measures. DTE Gas plans to implement mitigations as outlined in its TSA-approved Cybersecurity Implementation Plan (CIP). For TSA SD2 cybersecurity compliance, API 1164 2nd edition, and overall cybersecurity maturity, DTE Gas invested $1M in capital and $2M in O&M in 2024. Costs for 2026 and beyond include approximately $700K in incremental annual O&M to enhance DTE Gas' OT cybersecurity maturity. Additionally, DTE Gas' capital investments include $400K to upgrade FactoryTalk, its Industrial Automation Software (IAS). This project (and other projects under evaluation) will be included in future GDP updates.

Damage Prevention Program

To ensure the safety of the community, customers, and its employees, DTE Gas has a field team dedicated to the prevention of damages to the Company's natural gas pipeline system caused by excavation companies and homeowners. This team consists of Damage Prevention field liaisons in Southeast Michigan (SEMI) and field liaisons located in a section of the Company's Greater Michigan (GRMI) service territory.

Since its inception in 2016, the DTE Gas Damage Prevention team has been directly responsible for reducing DTE Gas' annual pipeline system damage rate by approximately 25%. As damage to a gas facility could result in an injury or fatality, this reduction has measurably improved the safety of the Company's gas operations for its customers, employees, and the community at large.

The focus of the Damage Prevention Program is to protect public safety by reducing the frequency and severity of potential damages to the Company's underground infrastructure. The DTE Gas team of field liaisons provides education and guidance to excavation companies working around pipelines and responds to damages caused to the Company's system to assist in the root cause determination for such damage.

The DTE Gas Damage Prevention Program consists of core field duties, which support the Company's PSMS efforts under Risk Management and Stakeholder Engagement elements, including:

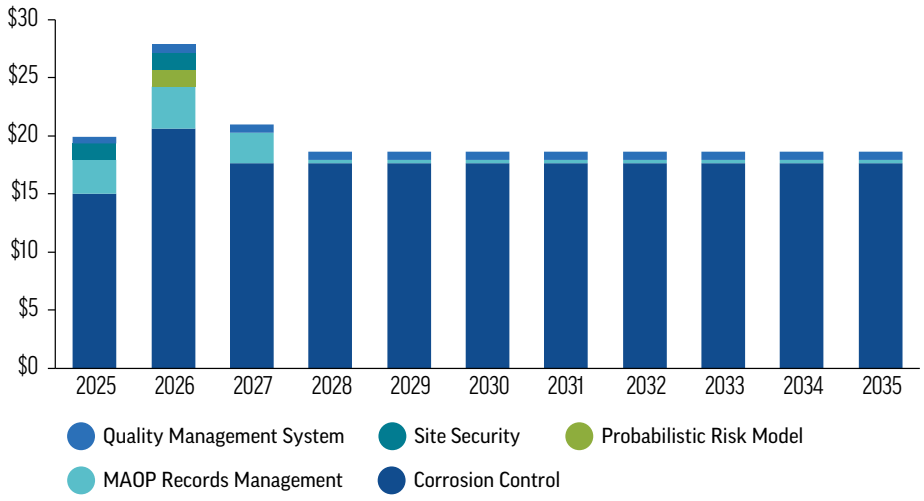
- **Risk analysis:** New locate requests are reviewed on a weekly basis, which includes ticket type (e.g., project tickets), work type (e.g., does the ticket involve water/ sewer replacement, fiber optics), number of natural gas facilities crossed, and type of work (e.g., boring, open trenching) to determine sites with higher risk of excavation damage. This review includes an analysis of excavation damages by excavator name, municipality, and root cause.
- **Metrics and analysis:** Damages and "near misses" are analyzed and root causes are determined. This information is shared throughout DTE Gas, as well as with excavators, in order to implement countermeasures to help prevent similar damage incidents.
- **Proactive site visits to the highest risk excavation sites:** Damage prevention field employees visit sites both prior to and during excavation to provide support, reinforce requirements for safe digging, observe behavior, and stop work as necessary.
- **Excavator safety presentations:** Training is provided to excavators, municipalities, and first responders on applicable legal requirements (e.g., MISS DIG law) and damage prevention strategies.
- **Field support:** Field liaisons provide contact information to excavators and field incoming questions and concerns.
- **Public Awareness Program:** Damage Prevention partners with the DTE Corporate Communications team to leverage physical and digital marketing materials to enhance the Company's customer outreach around the use of the MISS DIG system. Safe digging messaging targets customers as well as all Michigan homeowners.

As the Damage Prevention team refines its proven strategy across the Company's service territory, the Company strongly believes this approach continues to enhance the safety of all DTE Gas facilities for its customers, its employees, and the broader community it serves.

System Wide Countermeasures Capital Financial Summary

For the system-wide countermeasures previously described, DTE Gas plans to invest approximately $198M of capital from 2026-2035. The capital investment estimates for asset-specific countermeasures are included in each respective asset section (See Figure 23).

Risk Mitigation Capital System Wide Countermeasures ($M) – Figure 23



Emergency Preparedness

With the Company's investment in its emergency preparedness program, the Company is developing and maintaining the capabilities required to ensure it can respond quickly, efficiently, and effectively to any incident to protect lives, the environment, and its assets.

While DTE Gas continually works to prevent natural gas safety incidents, the Company also has a robust emergency preparedness program in place to ensure it is ready to respond effectively to an incident. Since adopting an Incident Command System (ICS) in 2016, DTE Gas has continued to expand its ICS knowledge base and utilization of ICS as a true all-hazards incident management system. DTE incorporates the principles and framework of both the National Incident Management Systems (NIMS) and ICS into its emergency operating procedures and response plans and ensures conformance with API RP 1173 requirements for Emergency Preparedness and Response. DTE Gas is also supported by the DTE Energy Corporate Emergency Management (CEM) team in both its preparedness planning and incident response when needed.

DTE Gas Emergency Preparedness continues to focus on its goal of continuous improvement.

2024 preparedness and response efforts included:

- Annual exercise of response to high-impact scenarios:
  - Loss of SCADA/Manual Pipeline Operations
  - Severe Loss of Supply event
- Expanded emergency response collaboration with external partners, at the national, state, and local levels:
  - AGA National Gas Exercise
  - AGA/MEA National Mutual Aid Response Exercise
  - Michigan National Guard Northern Exposure 2024 Full-scale exercise
  - State of Michigan Utility Mutual Aid Workgroup Mutual Aid Exercise
  - Kent County EOC Activation Functional Exercise

Additionally, DTE Gas worked in conjunction with other DTE business units and corporate functions to provide standby support to several high-visibility events within the City of Detroit, including the 2024 NFL Draft and the 2024 Detroit Grand Prix.

Plans for 2025 include continued participation in multiple internal and external emergency response exercises, external emergency preparedness work groups, and community event support.

Gas Demand and Supply Overview

Gas Demand

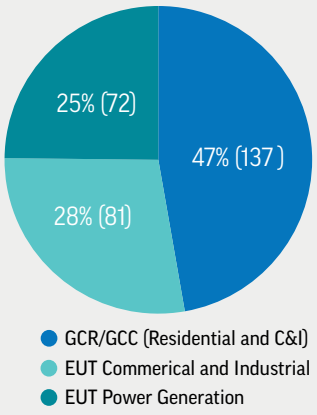
DTE Gas serves approximately 1.3 million Gas Cost Recovery (GCR) and Gas Customer Choice (GCC) customers and over 500 End User Transportation (EUT) customers. These homes and businesses rely on the Company's vast network of assets and purchasing strategies to deliver safe and reliable natural gas service and to maintain that service in an affordable and environmentally responsible way.

Including volumes transported for third-party Midstream customers and the NEXUS capacity lease, approximately 850-900 Bcf of natural gas flows across the Company's system on an annual basis. For the volumes consumed on our system, in 2024 DTE Gas supplied approximately 47% to GCR (customers sourcing gas from DTE Gas) and GCC (customers sourcing gas from alternative suppliers) customers, 28% was delivered to EUT commercial and industrial customers, and the remaining 25% was delivered to EUT power generation customers (See Figure 24).

Given recent environmental and policy trends, the Company expects the relative percentages for natural gas demand from these customer categories to evolve. Specifically, the Company expects the percentage of GCR/GCC customer demand to decline due to increased energy efficiency and new technology options over the next 10 years. DTE Gas also anticipates power generation demand to increase due to the continued shift from coal to natural gas-fired power plants.

Considering these macro trends affecting natural gas demand, DTE Gas has several initiatives addressing natural gas consumption trends, including energy efficiency programs and continually working to expand the availability of natural gas to new customers. Details on these efforts are below, though generally, GCR/GCC customer demand guides the Company's gas supply strategies.

DTE Gas 2024 System Demand by Customer Type (Bcf) – Figure 24



Gas Supply

DTE Gas deploys three key strategies to ensure reliability and price stability of natural gas supply to meet customer demand: (1) Utilization of natural gas storage assets to respond to system demand throughout the year, (2) Ensure reliability of supply through a system of interconnects and transport agreements from multiple natural gas supply basins, and (3) Execute a natural gas purchasing strategy to minimize price volatility from changing market environments.

Another fundamental element of providing reliable service beyond securing adequate pipeline supply is ensuring sufficient deliverability across the customer demand curve, especially during critical peak time periods. DTE Gas models three key components of the system to develop the Company's peak day operations plan: (1) Forecasted natural gas demand (including weather extremes), (2) Compression and surface facility capabilities, and (3) Storage field balances.

Actual annual sales

For 2024, DTE Gas served approximately 1.34 million sales customers of all types. In total, these customers consumed approximately 138.4 Bcf. Calendar year 2024 was, however, warmer-than-normal. Consequently, under normal weather conditions, those customers are estimated to have consumed 157.5 Bcf on a normalized basis. Note that "normal weather" is considered to be the 2010-24 15-year average of HDDs for Detroit, Grand Rapids, Muskegon, Traverse City, Alpena, Sault Ste. Marie, and Iron Mountain. These customers can be separated into six separate rate categories: Rate A, Rate 2A (Meter I), Rate 2A (Meter II), Rate GS-1, Rate GS-2, and Rate S.

NORMALIZED

Rate A: 1.2 million customers - 111.4 Bcf (93 Mcf/Customer)
Rate 2A I: 1.4 thousand customers - 0.3 Bcf (214 Mcf/Customer)
Rate 2A II: 4.7 thousand customers - 3.7 Bcf (787 Mcf/Customer)
Rate GS-1: 91 thousand customers - 39.4 Bcf (433 Mcf/Customer)
Rate GS-2: 76 customers - 1.1 Bcf (14,474 Mcf/Customer)
Rate S: 220 customers - 1.6 Bcf (7,273 Mcf/Customer)

Forecasted annual sales (2030/2035)

For 2030, DTE Gas expects to serve approximately 1.4 million customers of all types. In total, these customers are expected to burn approximately 152.6 Bcf under normal weather conditions (a rate of approximately 109 Mcf/customer).

2030 FORECAST

Rate A: 1.3 million customers - 109.6 Bcf (84 Mcf/Customer)
Rate 2A I: 1.4 thousand customers - 0.3 Bcf (214 Mcf/Customer)
Rate 2A II: 4.4 thousand customers - 3.2 Bcf (728 Mcf/Customer)
Rate GS-1: 92 thousand customers - 39.4 Bcf (409 Mcf/Customer)
Rate GS-2: 63 customers - 0.7 Bcf (10,798 Mcf/Customer)
Rate S 191 customers - 1.3 Bcf (7,001 Mcf/Customer)

In accordance with the Company's latest projections, total customer count is expected to grow at a rate of approximately 11,000 to 12,000 customers per year to 1.4 million customers by the end of 2030. The load associated with this growth, however, is expected to be offset by demand reduction due to the Company's energy efficiency plan. Consequently, the total GCR demand after accounting for this customer growth is expected to be 152.9 Bcf, or 111 Mcf/customer.

Beyond 2030, it is reasonable to assume that growth continues at the 9,500-10,000 rate consistent with growth over recent years, but that energy efficiency savings may be reduced. See below for the present estimation of demand in 2035:

2035 FORECAST

Rate A: 1.4 million customers - 108.1 Bcf (80 Mcf/Customer)
Rate 2A I: 1.3 thousand customers - 0.3 Bcf (200 Mcf/Customer)
Rate 2A II: 4.0 thousand customers - 2.7 Bcf (681 Mcf/Customer)
Rate GS-1: 92 thousand customers - 35.8 Bcf (390 Mcf/Customer)
Rate GS-2: 76 customers - 0.8 Bcf (10,085 Mcf/Customer)
Rate S: 187 customers - 1.2 Bcf (6,556 Mcf/Customer)

Gas Demand Efforts

Energy Efficiency (EE) Programs

The Company's energy efficiency program launched in June 2009 as a result of the Clean, Renewable, and Efficient Energy Act, also known as 2008 Public Act (PA) 295. In 2016, PA 342 was signed into law, amending PA 295 to set the minimum energy savings standards to 0.75% of total annual retail gas sales. In 2023, PA 295 was further amended to increase the minimum energy savings standards to 0.875% of total annual retail gas sales.

In 2018, DTE Gas moved to exceed PA 295's requirements by increasing the level of energy savings from 0.75% to 1.00% in its commitment to reduce customer energy waste. In 2023 DTE Gas further expanded this commitment by increasing its energy savings target to 1.05%, and maintained that savings level in 2024. Lowering customer gas usage through energy efficiency programs saves customers money and also reduces GHG emissions. From its inception in 2009 through 2024, it is estimated the DTE Gas energy efficiency programs have saved over 24,182 MMcf of energy with more than 5.4 million customer participations. The natural gas savings are equivalent to the energy required to power about 168,000 homes for one year. The commitment DTE Gas has for energy efficiency programs is a critical aspect of its goal to assist customers with managing their energy use while also reducing CO_2e.

Demand Response pilots

Demand response programs assist system operators with meeting supply needs during peak natural gas demand design periods or when operational conditions require a reduction in load. DTE Gas developed three demand response (DR) pilots, two of which launched in the winter of 2021/2022. The objectives of the pilots were to determine the effectiveness of natural gas demand response and identify opportunities that could lead to lower future investments. The pilot period ended at the conclusion of the 2022/23 winter season, and all participating customers were unenrolled from their gas DR pilots. In Case No. U-21291, the Commission encouraged DTE Gas to continue the Smart Savers gas pilot programs, which the Company plans to relaunch as the Smart Savers Gas pilot program beginning in the winter of 2025/26.

The Smart Savers Gas pilot, which is a Bring-Your-Own-Device (BYOD) initiative, where natural gas customers who already own combo gas and electric Wi-Fi enabled smart thermostats receive an incentive to enroll.

The Company plans to target current gas and electric customers who already participate in DTE Electric's Smart Savers electric program to participate and may expand the pilot to gas-only customers. The Company plans to collaborate with stakeholders to design a framework for the program to identify additional benefits for the pilots that were not observed in the previous pilot. In setting up the pilot, the Commission encouraged the Company to establish clear objectives and evaluation criteria for the pilot. DTE Gas is working with the MPSC Staff to address objectives, framework, and other information that needs to be assessed. The pilot is also planned to be used to explore the potential of NPAs. To further establish goals and objectives for the pilot and improve the pilot from the previous version, the Company plans to continue to benchmark with other utilities that have a similar offering to establish best practices.

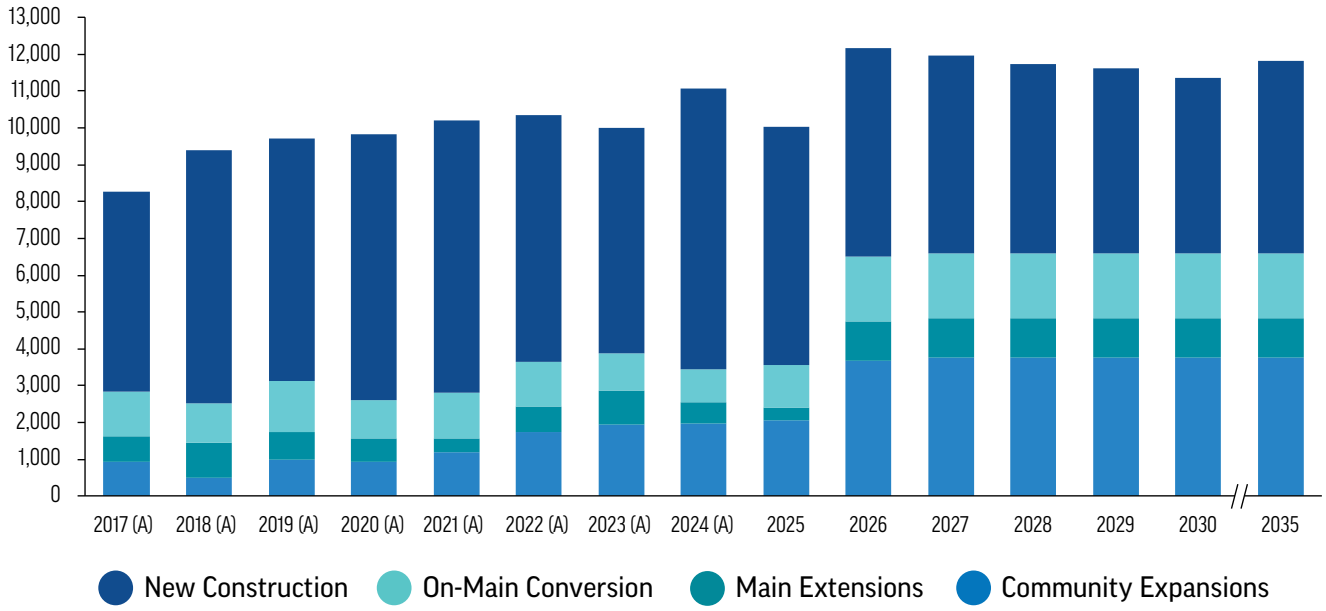
Expansion of DTE Gas natural gas service

Natural gas service expansion provides affordability benefits to all customers as it allows system operators like DTE Gas to spread fixed operating costs across a larger customer base. From 2020 through 2024, DTE Gas experienced a steady rate of new residential and small commercial customer attachments of approximately 10,300 per year (See Figure 25). New attachments are initiated both internally and externally:

- Internally initiated new attachments include on-main fuel conversions, main line extensions, and community expansion projects. Almost all internally initiated new attachments result in a customer converting from propane to natural gas. In addition to economic savings for the customer, this switch also benefits the environment, as natural gas combustion emits nearly 14% fewer pounds of CO_2 per million Btu than propane combustion
- Externally initiated growth is primarily driven by new home construction. This has been a historically consistent trend, and the Company expects this trend to continue for the next 10 years

Looking ahead, DTE Gas anticipates sustained strength in new customer attachments over the next decade, building on a record-setting year in 2024 with over 11,000 new attachments. This continues a steady upward trend, with approximately 10,000 new attachments recorded in both 2022 and 2023. While new construction activity is expected to gradually decline during this period, the Company's strategic focus on proactive growth channels–such as community expansion projects and on-main conversions–will continue to drive strong performance. The increase is also supported by a significant rise in inbound inquiries, indicating strong and sustained interest in natural gas service across its service territories. This diversified approach ensures that even amid an expected softening construction market, DTE Gas remains well-positioned to meet growing demand and deliver consistent results across its service territory.

Historic and Projected New Attachments by Category – Figure 25



Gas Supply Strategies and Deliverability

Supply strategies for reliability and price stability

DTE Gas is engaged in several strategies to ensure reliability and price stability of supply. The Company's overall system capacity, storage capabilities, and more than 30 interconnects provide the ability to adapt to varying operational conditions and move significant volumes of natural gas to where it is needed.

The Company's supply strategies that leverage these inherent system characteristics include:

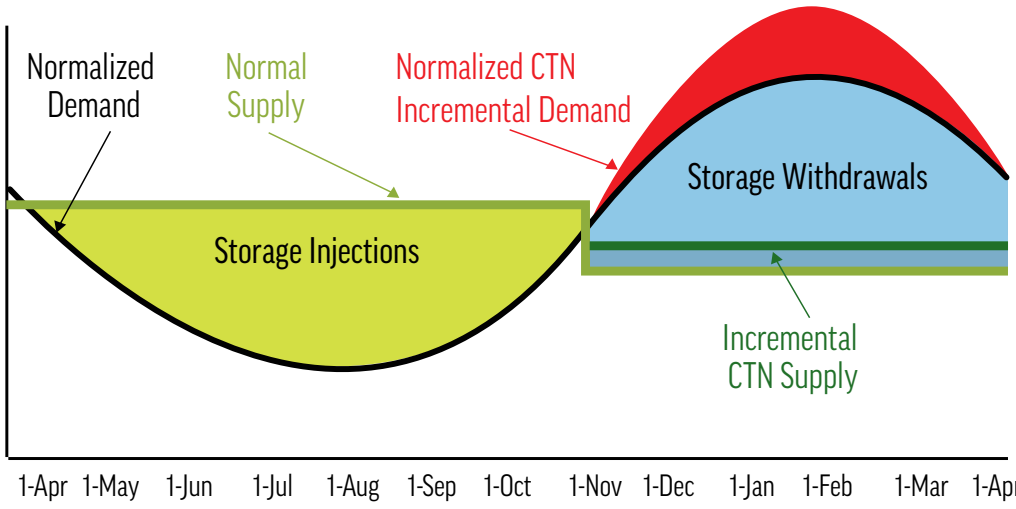
1. UTILIZE STORAGE ASSETS TO MANAGE SYSTEM DEMAND THROUGHOUT THE YEAR

As discussed previously, DTE Gas owns and operates four gas storage fields in Michigan. This storage capacity represents approximately 50% of expected winter GCR/GCC demand and plays a critical role in providing safe and reliable natural gas service in an affordable and environmentally responsible way. During the critical winter months, the Company fulfills customer demand by utilizing natural gas flowing onto the DTE Gas system on transportation contracts, as well as gas that is withdrawn from its storage fields. Storage is the balancing mechanism that allows DTE Gas to quickly adjust to changes in daily requirements and provides the flexibility to quickly ramp up or down the amount of natural gas distributed to meet customer needs. For example, when temperatures drop and customer demand increases, storage allows for natural gas to be withdrawn and added to the Company's system to meet this higher demand. Over the winter, DTE Gas maintains the required balance between flowing winter supply and storage withdrawals to meet customer needs. In 2025, design day demand is forecasted to be 6.2 Bcf, with 2.5 Bcf coming from storage.

Storage operations are especially important during the coldest months to protect for peak day operations and exposure to Colder-Than-Normal (CTN) weather. The GCR/GCC storage target is 70.1 Bcf at the start of the winter withdrawal season (November through March). The Company plans on 59 Bcf of the GCR/GCC withdrawn from storage gas each winter while around 11 Bcf of gas is targeted to be available for DTE Gas' customers in the event of CTN weather or otherwise increased customer demand. In an average year, it is expected that this gas will remain in the ground. Gas is injected during the summer injection season (April through October), defined as April through October, to meet the 70.1 Bcf GCR/GCC storage target (See Figure 26).

DTE Gas designed a supply plan to meet the required minimum storage inventory balances to ensure the Company can meet specific storage withdrawal rates necessary to meet peak day requirements. On a January peak day, approximately 65% of GCR/GCC demand is served utilizing gas from storage. Storage also holds a portion of the CTN protection volumes and must be managed on both a seasonal and daily basis. This storage strategy allows DTE Gas to be prepared to reliably supply gas in CTN weather while minimizing costs. During the winter heating season DTE Gas maintains 8 Bcf of Colder-Than-Normal Protection (CTNP) gas in storage to be utilized if the service territory experiences CTN temperatures. Each month during the winter season, DTE Gas analyzes the levels of CTNP gas and replenishes it as needed, to ensure adequate protection of system reliability.

Illustrative DTE Gas Storage Annual Cycle – Figure 26



2. ENSURE RELIABILITY OF SUPPLY THROUGH A SYSTEM OF INTERCONNECTS AND TRANSPORT AGREEMENTS FROM MULTIPLE SUPPLY BASINS

The interconnectedness of the DTE Gas system allows the Company to utilize a diverse supply portfolio of primary firm interstate natural gas transportation contracts. DTE Gas purchases and delivers natural gas from multiple supply regions to manage system operating requirements and ensure reliable gas supply. DTE Gas holds firm transportation contracts to meet requirements for normal weather, CTN weather, design day (detailed later in this section), and Supplier Of Last Resort (SOLR) for GCC customers. As a SOLR, DTE Gas will continue to provide natural gas service to GCC customers if any GCC supplier(s) fail to meet their obligations due to insolvency, loss of license, or other unforeseen circumstances. While MichCon Citygate supply is an important portion of the DTE Gas supply portfolio (approximately 20% of the total GCR supply), to solely rely on it nullifies the diversity benefits that firm interstate transport capacity provides in managing systemic risks in meeting design day and CTN weather loads.

DTE Gas has multiple points where it can receive natural gas supply throughout the transmission system. This includes over 30 major interconnects with nine different pipeline companies. Receipt capacity at these interconnects totals over 10 Bcf per day. In addition to comprising a diverse supply portfolio, these interconnects also contribute to the overall reliability and resiliency of the transmission system by providing gas supply flexibility should one of the interconnects lose supply. An example is Willow Station, which feeds the Southeast Michigan (SEMI) market and is connected to the DTE Gas primary transmission system. Willow Station is interconnected with three different interstate pipelines: ANR, Panhandle Eastern Pipeline Company (PEPL), and NEXUS. This station can be reconfigured to send supply to SEMI from any of these interconnects.

Additionally, if there was a significant operational emergency on the Company's system, supply diversity allows DTE Gas to communicate with interconnected pipeline companies and request assistance for additional flowing natural gas at other receipt locations where it would benefit operations and maintain reliability. As an example, when Consumers Energy experienced a fire at its Ray compressor station in 2019, DTE Gas provided additional supply at the Northville Interconnect, which benefited Consumers Energy and its customers. To further enhance the operational flexibility of the two systems, DTE Gas and Consumers Energy are collaborating on the addition of one other interconnect; the Oakland Resilience Interconnect, which is described in further detail in the Transmission Asset Plan section.

DTE Gas' customers also benefit from a regionally diverse supply strategy through increased supply reliability and muted price volatility. Security of supply and increased options for supply sources are the primary reasons DTE Gas holds regional interstate transportation capacity (summarized in Table 6).

Supply basin diversity helps the Company mitigate adverse effects of major disruptions in the industry and the possible exposure to high natural gas costs for customers. If upstream supply becomes constrained in a particular basin, the Company's diverse supply portfolio provides options to help insulate DTE Gas and its customers from the risk of potential supply disruptions in that area.

DEPENDABLE

EFFICIENT

3. EXECUTE A PURCHASING STRATEGY TO MINIMIZE PRICE VOLATILITY ASSOCIATED WITH EXTREME WEATHER EVENTS

DTE Gas mitigates price uncertainty by utilizing the Volume Cost Averaging (VCA) methodology of purchasing fixed-price supply. DTE Gas' natural gas supply pricing strategy is a mixture of both fixed-price supply, where the price is known months in advance of delivery, and indexed-price supply, where the price is uncertain until delivery begins.

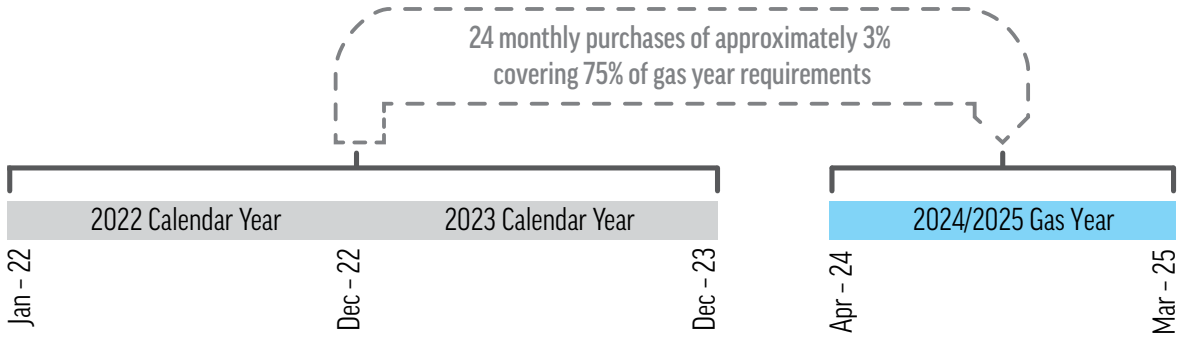
The VCA program is a methodology used to create price certainty for natural gas volumes that will be delivered at a future date. VCA provides upward price protection, downward price participation, and a year-over-year smoothing effect on the price GCR customers pay. Most importantly, it is also a simple and effective way to manage price fluctuations and dampen natural gas price uncertainty for GCR customers under a variety of actual and potential market conditions. In general, DTE Gas fixes the price of its future natural gas supply over a two-year period prior to the start of delivery during the GCR period. As a result, the price for 75% of DTE Gas' supply will be known before the start of the GCR period. It is imperative to leave 25% in an open position to provide flexibility to respond to changes driven by conditions such as weather and customer demand (See Figure 27).

DTE Gas employs a methodology allowing for continual market participation, consistent with the philosophy that one should not try to "beat the market," but instead regularly purchase volumes over an extended period, which is a reasonable and prudent method for mitigating price fluctuations or volatility.

DTE Gas Transportation Portfolio – Table 6

Supply Basin Percentage of Total	Winter 24-25
Canadian	
Great Lakes Gas	8.2%
Viking	5.2%
Vector	4.4%
Alliance	12.5%
	30.3%
Mid-Continent	
ANR Southwest	16.0%
Panhandle Eastern	16.2%
	32.2%
Appalachian	
PEPL Falcon	3.7%
Shelbyville	15.0%
NEXUS - Kensington only	9.4%
NEXUS - Clarington/Teal	9.4%
	37.5%
Total All Pipelines	**100%**

DTE Gas GCR Volume Cost Average Program Example – Figure 27



System deliverability as a key element of overall system reliability

Another fundamental element of providing reliable service beyond securing supply to meet demand is ensuring that sufficient gas pipeline pressure exists at any given time to safely deliver natural gas to the transmission and distribution system.

DTE Gas defines system deliverability as the ability to provide the appropriate pressure and supply to have natural gas flowing to customers when they need it. Gas flow needs vary throughout the year based on weather and other factors, so DTE Gas must ensure the system is ready to supply natural gas at any time, regardless of weather and temperature conditions. In addition, considering the holistic interdependency of the Company's system, the concept of deliverability applies to each of its assets, which all play a key role in maintaining the ability to supply natural gas to customers.

When designing for winter operations, DTE Gas evaluates each aspect of its system to ensure that conservative assumptions are used. This ensures that there is enough natural gas supply to meet the highest forecasted demand during extreme cold weather, referred to as a winter design day. The inputs for a winter design day are defined to assure operational integrity even during extreme conditions. These inputs are reviewed each winter to reflect the most up-to-date design day scenario assumptions. DTE Gas models the following three components of the system to develop the Company's peak day operations plan:

1. FORECASTED GAS DEMAND (INCLUDING WEATHER EXTREMES)

Forecasted markets for residential and small commercial customers are driven by weather and expected economic conditions. Colder temperatures result in higher natural gas demand. Design day temperatures are derived by identifying the lowest historical temperatures experienced over the last 70 years, in 16 separate regions throughout DTE Gas' service territory. The Company then assumes that the coldest temperature in each of the 16 regions occurs on the same day. Temperatures are updated each time a new record is set, and the Company reviews the inputs annually. The relationship between temperatures and system-wide natural gas demand is developed by performing a predictive analysis based on customer usage and weather history. The resulting model then calculates corresponding markets at design day temperatures and is updated annually based on the most recent customer usage data available.

2. COMPRESSION AND SURFACE FACILITY CAPABILITIES

DTE Gas also models storage field, compressor units and surface facility capabilities (which include gas dehydration). Each component is then integrated into a single system-wide model to gain a sophisticated view of system capabilities under various conditions. To add to the conservativeness of a design day forecast, several compression assets are assumed in reserve to increase system resiliency during unexpected outages.

3. STORAGE FIELD BALANCES

The Company assumes storage field balances are set at minimum levels for all DTE Gas' customers. This ensures that the Company plans for sufficient storage deliverability on a design day, even at the lowest possible field balances.

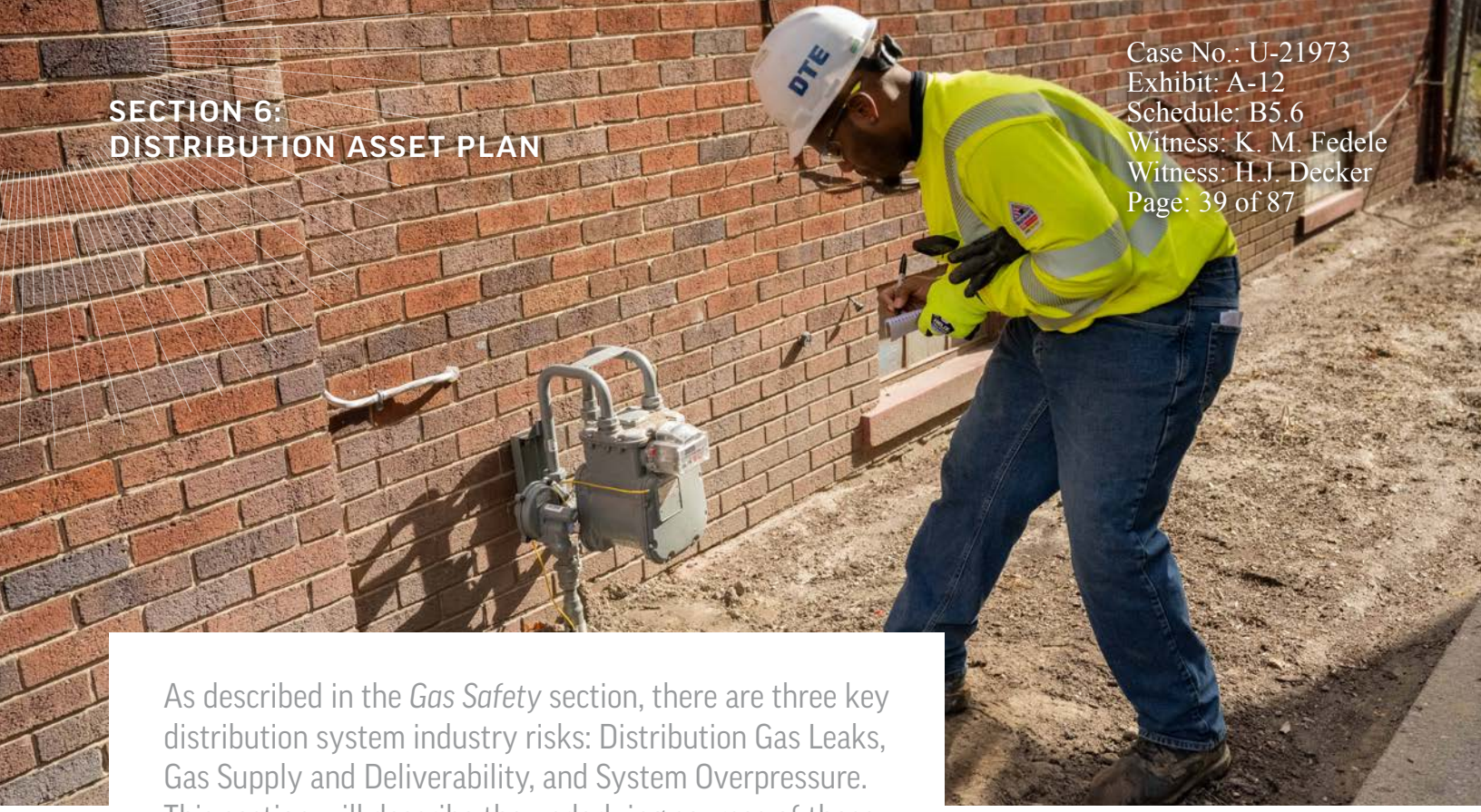
The role storage plays in providing the deliverability needed to meet customer demand is paramount. During the polar vortex of 2014, DTE Gas assets were tested under unprecedented circumstances, which resulted in a robust evaluation of the assets under extreme weather conditions. The learnings from this experience resulted in capital improvements to the Columbus storage fields and surface facilities that were reviewed by the Commission in a previous DTE Gas rate proceeding (Case No. U-17999). Three new horizontal wells in the Columbus storage field, a liquid extraction unit, an additional dehydration unit at Columbus Compressor Station, and two new compressor units at Belle River Compressor Station were added to enhance storage deliverability. In the aftermath of the 2019 Consumer's Energy storage field outage, DTE evaluated critical redundancy gaps at its most impactful storage field. The result of this evaluation was an investment in a redundant dehy unit at Belle River storage field, further re-enforcing our ability to meet peak customer demand during cold weather. These facility enhancements mitigated deliverability shortages under similar conditions and enhanced the reliability and resiliency of the system.

By continually updating and reviewing the forecasts and planning for the scenarios listed above, DTE Gas ensures the reliability and resiliency of its transmission, storage, and compression systems for adequate deliverability that aligns with the seasonal needs and constantly fluctuating demands.

Summary

The Company prioritizes projects that enhance the reliability and deliverability of the system. By maintaining a diverse portfolio of transportation contracts and expanding interconnects, the Company plans to continue to focus on natural gas buying strategies that lead to stable commodity costs and reliable supply for customers.

Case No.: U-21973
Exhibit: A-12
Schedule: B5.6
Witness: K. M. Fedele
Witness: H.J. Decker
Page: 39 of 87



As described in the *Gas Safety* section, there are three key distribution system industry risks: Distribution Gas Leaks, Gas Supply and Deliverability, and System Overpressure. This section will describe the underlying sources of those risks and DTE Gas' efforts to mitigate them.

Distribution gas leaks: Contributing factors are primarily pipeline age and material as well as the presence of inside meters. DTE Gas has six programs to help mitigate the risk of leaks, while also reducing fugitive emissions:

- Gas Renewal Program (GRP)
- Meter Assembly Check (MAC)
- Leak Remediation
- Ground Movement Mitigation Program
- Cross Bore Inspections
- Distribution Renewal Program (DRP)

GRP, which includes main renewal and meter move out, is DTE Gas' largest initiative and plans to account for approximately 40% of DTE Gas' capital expenditures over the next 10 years.

Gas supply and deliverability:
The primary risk factor is a single distribution pipeline or regulator station supplying a distribution system.

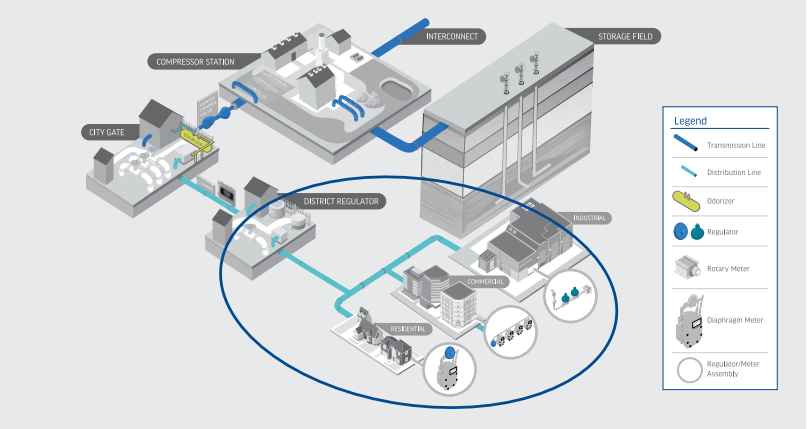
To help mitigate this risk, DTE Gas created a Distribution System Planning team to update and maintain hydraulic system models to identify potential routine natural gas supply improvement projects which are completed in the System Reliability Program. This program includes the installation, replacement, uprating, or repair of regulator stations, valves, fittings, and mains to ensure safe and reliable natural gas supply to DTE Gas customers. These actions address general growth, regulatory compliance, and obsolescence.

System overpressure: The primary risk factors are failures of separation valves, regulators, and overpressure protection devices, including common mode failure events for regulator stations. DTE Gas is developing a risk-based Regulator Station Replacement Program (RSRP) and accelerating the Company's routine capital System Reliability Program to renew or upgrade regulator stations to mitigate this risk.

Distribution Assets Overview

DTE Gas' distribution system serves more than 1.3 million customers throughout Michigan. The system consists of approximately 21,500 miles of main, 1.2 million service lines, 2,150 district regulator stations, and 1.3 million customer meter sets.

Natural Gas System – Illustrative – Figure 28

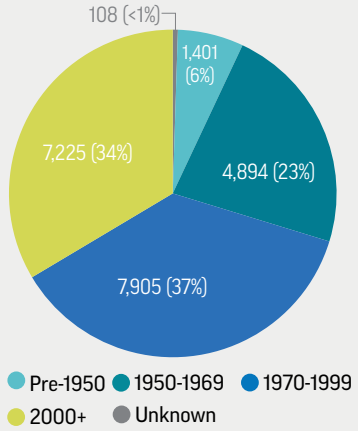


Distribution Pipeline Age and Material Risk Factors

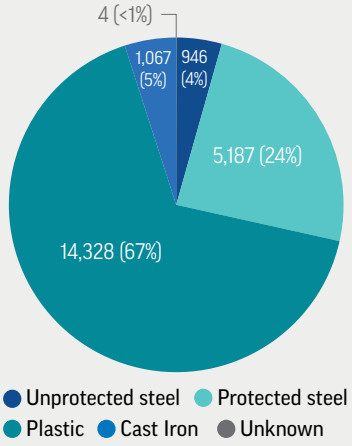
Approximately 30% of DTE Gas' existing distribution main was installed prior to the issuance of the federal pipeline safety standards in 1970 (See Figure 29). These older pipelines include more than 1,050 miles of cast iron and over 900 miles of unprotected steel, and lack protective coatings or cathodic protection, making them more prone to corrosion leaks after decades in the ground (See Figure 30). Moreover, older construction practices often used less sound pipe joining methods than current welding practices, such as mechanical couplings and lower-quality welding techniques. Accordingly, replacing aging, low-pressure infrastructure through the GRP is a large part of the Company's investment plan to improve distribution system safety and reliability.

Similarly, approximately 60% of DTE's approximately 1,300 miles of high-pressure (≥100 psig) steel distribution main was installed before 1970. A disruption event on these high-pressure pipelines, particularly in a populated area, could have a significant impact and consequence on both safety and reliability. DTE Gas is developing a Distribution Renewal Program, which is discussed later in this section, to identify and prioritize remediation of these high-pressure distribution pipelines (See Figure 31).

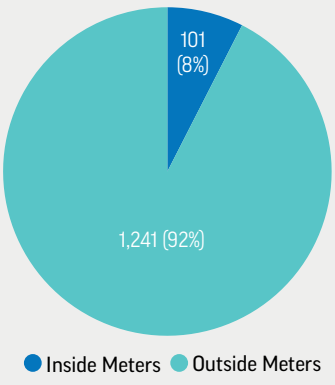
Distribution System Mileage by Installation Decade – Figure 29



Distribution System Mileage by Material – Figure 30



DTE Gas Meters by Location (in Thousands) – Figure 32

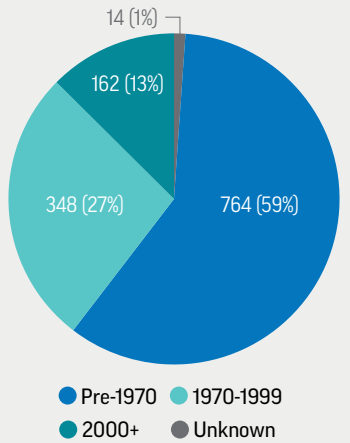


Inside Meter Risk Factors

DTE Gas has approximately 100,900 inside meters remaining to relocate outside, which reduces the risk of natural gas leaks inside buildings and allows DTE Gas and first responders faster access to the meter should an urgent need arise (See Figure 32).

DTE Gas utilizes GRP which includes main renewal projects and meter move grids to move meters and regulation to the outside of the building wall.

High-Pressure Distribution Steel Main Miles (100 Psig or more) by Installation Year – Figure 31



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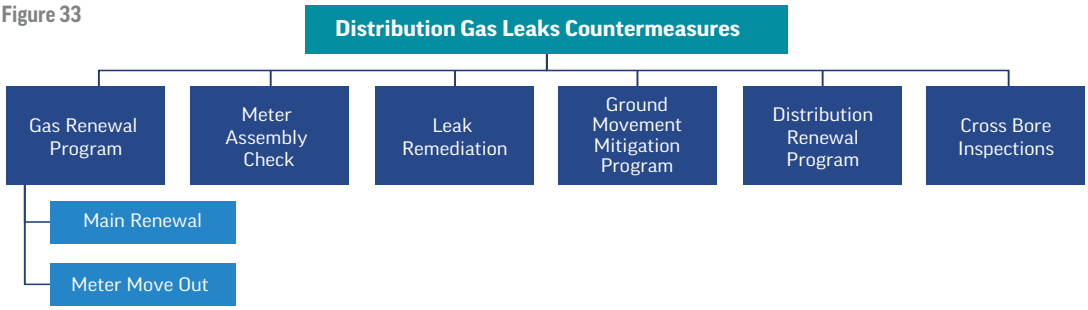
Distribution Risk Countermeasures

Figure 33



Gas Renewal Program (GRP)

DTE Gas initiated the GRP in 2011 to modernize its distribution infrastructure. The program targets the removal of legacy mains and inside meters from the DTE Gas distribution system.

DTE Gas GRP plays a critical role in enhancing the safety and reliability of the Company's natural gas delivery system. By proactively replacing aging pipelines with modern, corrosion-resistant materials, the Company significantly reduces the risk of leaks and system failures. This not only protects its customers and communities from potential hazards such as gas leaks and explosions but also supports environmental stewardship by minimizing methane emissions. This initiative supports sustainability goals and is projected to account for a reduction of up to 500,000 metric tons of emissions by the time the program is completed.

A particularly salient example of the recognized value of the GRP work occurred during the Southwest Detroit flooding after a significant water main break in February 2025. The legacy mains in the affected area had already been replaced through the GRP. The upgraded infrastructure demonstrated exceptional resilience while maintaining natural gas service continuity and avoided any safety incidents. If mains were not replaced in this area, the consequences could have been severe including a weakened gas system that would lead to leaks, blocked gas flow reducing or halting gas delivery to homes and businesses, or frozen lines causing total service outages on a cold weather day.

Since 2011, DTE Gas has renewed over 1,900 miles of main and has moved more than 298,000 meters outside. The Company is on track to eliminate all wrought iron, cast iron, bare steel, and cathodically-unprotected coated steel main (e.g., "legacy" main), as well as relocate all feasible inside meters outside by 2037.

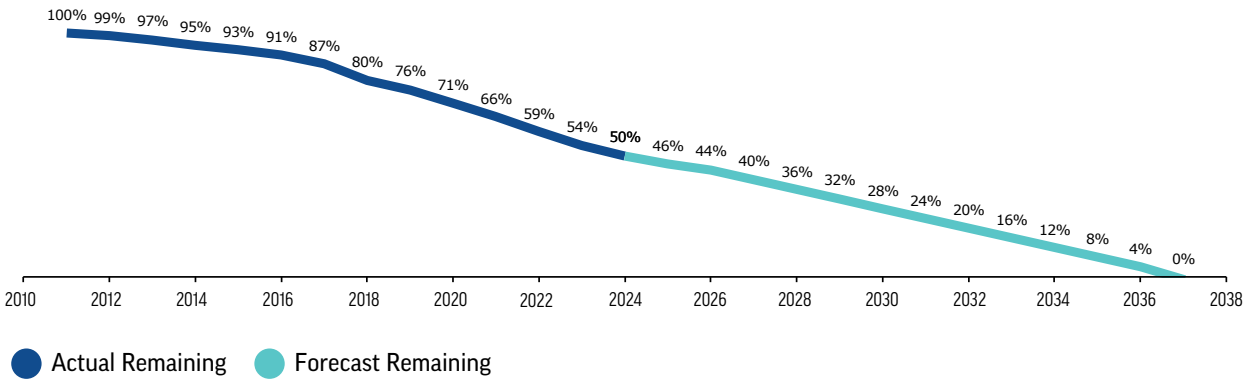
The Company plans to invest approximately $3.7B in the GRP over the next ten years (2026 - 2035).

GRP - LEGACY MAIN RENEWAL (LEGACY MILES REMEDIATED)

DTE Gas has implemented a long-term strategy to drive down leaks and reduce lost and unaccounted for natural gas (and associated GHG emissions) through renewal and retirement of legacy pipelines. DTE Gas uses a risk-based prioritization model, which allows for the systematic and efficient replacement of pipelines in large grid areas. This comprehensive, total-system approach strengthens the grid by replacing low pressure distribution systems with new, higher-pressure plastic systems. As shown in Figure 34, DTE Gas intends to continue replacing legacy mains at a 4% average program completion rate until 2037[1].

[1] Contingent upon regulatory approval

DTE Gas GRP Main Renewal Completion – Figure 34

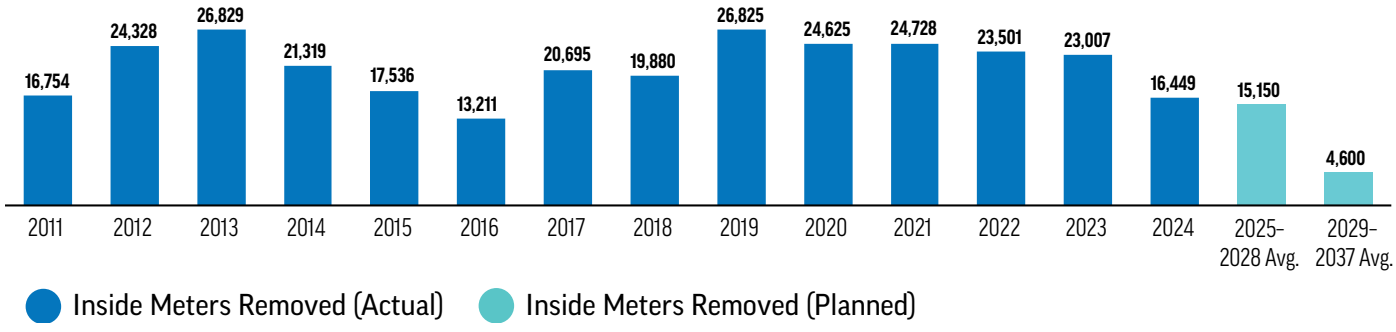


GRP - INSIDE METER MOVE OUT

The DTE Gas GRP also relocates gas meters outside in a systematic, grid-based, cost-efficient manner. The GRP minimizes the potential for inside building leaks and addresses the challenges of gaining access to inside meters to perform Meter Assembly Checks (MACs), which is a critical component of leak inspection.

DTE Gas plans to reduce the inside meter balance by an average of 15,150 meters per year through 2028, at which point approximately 97% of meters are planned to be outside. The remaining feasible inside meters are targeted to be moved outside by 2037 (See Figure 35).

DTE Gas Inside Meters Removed[1,2] – Figure 35

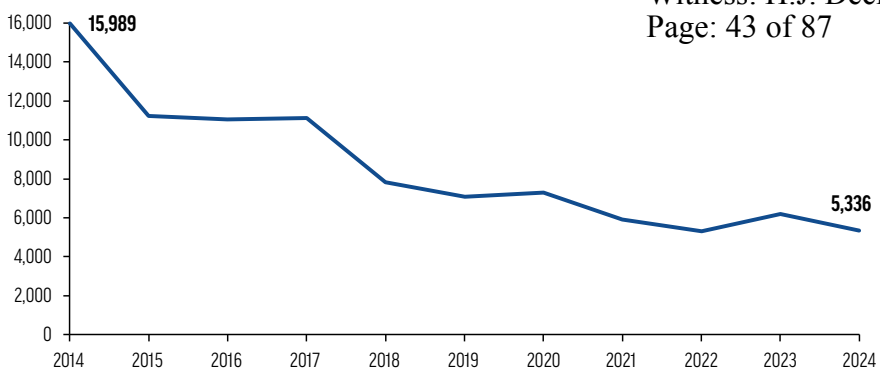


[1] Includes inside meters moved outside through routine, MAC MMO, and GRP work
[2] Remaining units for 2029 – 2037 will depend on project selection over the next 3 years

GRP LEAK REDUCTION RESULTS

Leak survey results demonstrate that infrastructure renewal is reducing leaks in the DTE Gas distribution system. The number of incoming leaks may be influenced by external environmental factors such as extreme cold, but the decrease has been consistent through the last three years (See Figure 36). This trend supports the benefits of GRP and the need to continue to modernize the Company's infrastructure.

Incoming Leaks by Year – Figure 36



Leak remediation

While GRP has demonstrated the benefits of eliminating leaks, the remaining aging infrastructure also continues to be at risk for leaks. To help mitigate this risk and preserve safety and reliability for customers, DTE Gas actively identifies and remediates leaks from its infrastructure. DTE Gas uses two methods to identify leaks:

- **Annual leak survey:** DTE Gas surveys all pipelines, service lines, and meters with leak detecting equipment. The Company conducts these surveys in accordance with regulatory requirements in the Michigan Gas Safety Standards. The Company surveys its cast iron pipelines and business district pipelines every year, and its residential area pipelines and services at least every five years.
- **Reported leaks:** The public also identifies and reports potential gas leaks. DTE Gas takes leak reports very seriously and investigates all such reports. In 2024, DTE Gas responded to leaks, on average, in 20.9 minutes.

DTE Gas Marketing works with the DTE Corporate Communications team to utilize both physical and digital outreach to educate customers about natural gas leak safety. Through targeted messaging and materials, DTE Gas informs the public on how to recognize signs of a leak and respond appropriately, reinforcing the shared responsibility for pipeline safety.

All natural gas leaks are graded to evaluate their severity and the requirements for remediation or monitoring. The natural gas leaks are documented in DTE's Gas Distribution & Transmission Procedures. Hazardous leaks receive immediate action (Table 7 and Table 8).

Field Conditions for Leak Classification – Table 7

Grade	Field Conditions
1	• Any indication of combustible gas which has migrated into or under a building, or into a tunnel or other enclosed space • Gas ignition • Congested area where pedestrians could be near a leak • Indication of combustible gas within 3' of a building wall • Any sustained reading of 4% combustible gas (80% of the Lower Explosive Limit (LEL)) or greater in small substructures • Any excavation-related damage resulting in a leak • Any leak that can be visually observed, heard, or felt, and is in a location that may endanger property or the general public
2	• Read of underground combustible gas greater than 3', and up to 20', from a building wall and the conditions dictate there will be no migration to the building wall • Reading of less than 4% combustible gas (80% of the LEL) in traffic control boxes, fire call boxes, or similar spaces • Reading of less than 4% combustible gas (80% of the LEL) in substructures such as water or sewer manholes, water services, gas services, telephone facilities, electric facilities, or other underground conduits
3	• Any sustained reading of less than 4% combustible gas (80% of the LEL) where the spread of gas is unlikely to migrate to a building wall or any underground in small gas-associated substructures, such as valve and tracing wire boxes • Any indication of underground combustible gas >20' from a building wall

Leak Classifications and Actions – Table 8

Grade	Classification	Action
1	Immediate Action	Leaks that represent an existing or probable hazard to persons and/or property. Grade 1 leaks require immediate repair or continuous action until the conditions are no longer hazardous
2	Scheduled Action	Leaks recognized as being non-hazardous at the time of detection but that require or justify a scheduled repair based on potential future hazard. Grade 2 leaks must be scheduled to be repaired or eliminated within one (1) year and must be rechecked after six (6) months if not repaired or eliminated
3	Deferred Action	Leaks that are non-hazardous at the time of detection and can be expected to remain non-hazardous. If not repaired or eliminated, Grade 3 leaks must be rechecked at least once each calendar year but not exceeding a 15-month interval

ADVANCED LEAK DETECTION

Picarro is a mobile leak survey system that uses high-resolution, vehicle-based equipment to detect methane. This technology is expected to improve the ability of DTE Gas to identify possible leaks within its system.

The Picarro technology enhances public safety and improves the reliability of the distribution system. Picarro utilizes more sensitive gas detection technology (parts per billion vs. parts per million), which aims to increase DTE Gas' ability to accurately identify existing leaks. By identifying leaks and quantifying GHG emissions, Picarro also enhances DTE Gas' environmental efforts.

The deployment and evaluation plan for Picarro involves using it to identify high methane emitting potential leaks in off-cycle routine survey areas. This enhances customer safety by identification of potentially larger leaks within the DTE Gas service territory. Picarro identified 300 high-emitting leaks in 2024. The prioritization of leaks based on emission level supports the Company's environmental actions to minimize methane emissions due to leaks. Additionally, the Company plans to integrate the emissions data into its Distribution Integrity Management Program (DIMP) model to help prioritize infrastructure improvements. Additional use cases for Picarro include performing quality checks on traditional leak surveys and conducting special surveys, such as high-consequence public events and when abnormal conditions are found.

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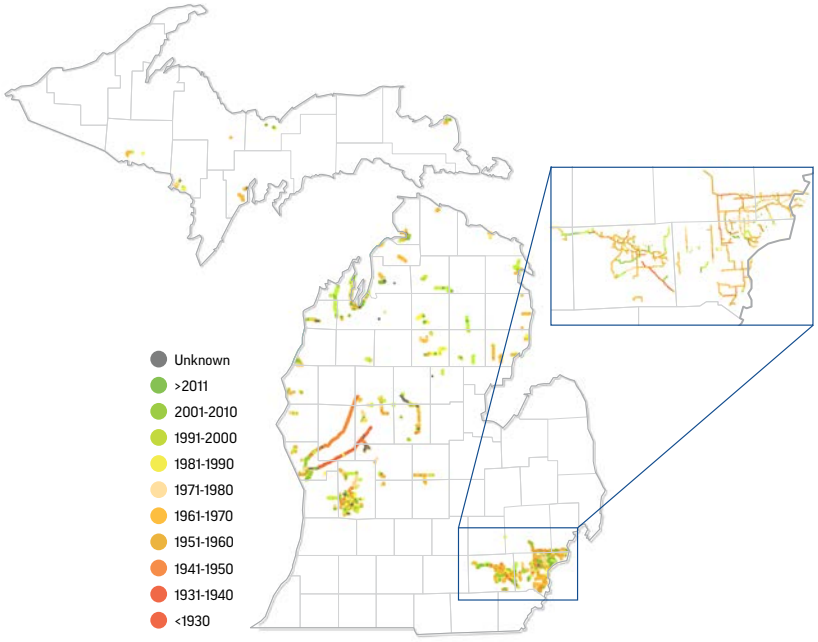
Distribution Renewal Program (DRP)

DTE Gas has approximately 1,300 miles of high-pressure (≥ 100 psig) steel distribution pipelines located throughout its service territory. More than 60% of these pipelines were installed before 1970 (See Figure 37).

DTE Gas has a Distribution Renewal Program (DRP) to identify high-priority pipelines, based on integrity and reliability factors. Integrity factors include legacy welding practices, ineffective cathodic protection, poor coating quality or lack of coating, mechanical couplings, thin wall pipe, third-party damage, population density, and proximity of the pipeline to buildings. Reliability factors include single source pipelines with high customer outage potential. This program differs from the Company's GRP in that it is focused on high-pressure steel distribution pipelines, while the GRP focuses on predominantly lower pressure cast iron and cathodically-unprotected steel pipe.

DTE Gas has created a Distribution System Planning team to (1) Support and continuously update hydraulic modeling tools consistent with the expectations identified in the MPSC's 2019 SEA report, (2) Develop an annual proactive distribution system planning process to identify potential customer deliverability and reliability risks, and (3) Provide optimization and efficiency analyses for major distribution capital infrastructure projects.

High-Pressure Distribution Pipelines by Installation Year – Figure 37



FORT STREET MAIN REPLACEMENT PROJECT

DTE Gas identified high-priority, high-pressure steel distribution pipelines for risk remediation based on integrity and reliability factors. The Fort Street main was identified as high-risk based on this analysis and was identified for remediation. This pipeline is being remediated in phases. The first two phases of the project were completed as a stand-alone project in 2019 by replacing 3,000 feet of mechanically joined main in Downtown Detroit. The other phases of the project include the installation of approximately 13 miles of main and retirement of approximately 14 miles of main from River Rouge Station to Jefferson Station along Fort Street in Detroit.

The Fort Street main replacement project is driven by several key factors. First and foremost, this project is needed to improve pipeline safety by retiring the 1940 and 1951 installed 24" mechanically coupled steel mains operating at 50 psig and 99 psig in a dense urban environment. Pre-1970 construction practices often used mechanical couplings that were not designed to withstand pullout forces to join pipe segments. These mechanically coupled joint segments are subject to a higher risk of leaks from third-party damage, corrosion, and ground movement due to natural forces or nearby construction activity. Second, completion of the entire project mitigates the potential outage risk of approximately 15,000 customers in Downtown and Southwest Detroit by creating a looped supply at 145 psig. Finally, prior to this project, there was no high-pressure natural gas supply available in the area east of Downtown Detroit, and a high-pressure natural gas supply was needed to supply the East Jefferson municipal coordination project and future 60 psig GRP grid projects. This portion of the project was completed in 2024 and the 145 psig high-pressure connection is complete and is supplying the East Jefferson project and the 60 psig system east of Downtown Detroit.

CARLTON MAIN REPLACEMENT PROJECT

The Carlton Main pipeline is identified as a high-priority replacement due to its declining condition, age, close proximity to residential homes, and it being a thin-walled steel pipe. The existing 6" pipeline was installed in 1940 and operates in three sections at 125, 100, and 45 psig. The Carlton Main supplies natural gas from Augusta Station and the Textile main to the City of Ypsilanti and Augusta, Sumpter, and Exeter Townships. The other risk factors related to the existing 125-psig Carlton Main pipeline is that it is supplied by a single source (i.e., no alterative supply of natural gas), and its failure during peak winter conditions could interrupt service to approximately 2,500 customers. Due to the age and safety concerns around welding to the thin wall of the pipeline, maintenance for this pipeline relies on long lead time mechanical fittings, which delays repairs and further compromises overall reliability. The Carlton Main Replacement Project will include 4.6 miles of new 12" steel pipeline operating at 274 psig, primarily along Tuttle Hill Road, connecting Augusta Station to the high-pressure system along Textile Road and will abandon 5.1 miles of the existing 6" 125 psig Carlton main. This upgrade is scheduled for construction in 2026 and expected to be completed and placed into service in 2027. It will enhance safety and simplify operation of the high-pressure system in the area by integrating multiple pressure systems. This integration will improve system reliability and increase operational flexibility, ultimately reducing the risk of service disruptions for approximately 1,800 of the 2,500 customers in the local distribution network. The remaining 700 customers are supplied from the south portion of the Carlton Main that will be reviewed and addressed in a future project. DTE Gas' cost estimate for this project is approximately $14M.

SOUTH GRAND RAPIDS PROJECT

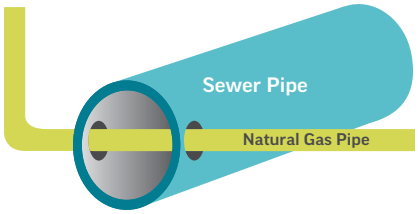
The South Grand Rapids Pipe Replacement project will replace an aging transmission pipeline with potential risks primarily due to legacy pipeline manufacturing and construction practices at the time of installation. Specifically, this line includes pipe manufactured by A.O. Smith, documented in the industry to contain long-seam defects and hard-spot defects. In addition, this line contains "wrinkle bends," a practice that is no longer used in the industry and that is known to create potential high-stress areas on the pipeline. To alleviate these concerns and to address potential unknown corrosion or other structural concerns within the current pipeline, DTE Gas plans to replace the pipeline by installing a new distribution main. The existing 2.6-mile pipeline, built in 1949, runs between the South Grand Rapids gate station and the Collindale regulator station in Walker, Michigan. This pipeline provides critical natural gas supply to the Grand Rapids distribution system. Loss of this natural gas line during peak-day winter conditions would result in loss of service to approximately 23,000 customers. The existing pipeline includes segments located in High Consequence Areas (HCAs) which require In-Line Inspection (ILI) assessments by 2029 under federal pipeline integrity assessment rules. Due to limitations in current ILI technology for lower pressure 22" pipelines, the existing line does not allow for adequate access to assess for long-seam integrity. To address this concern, the pipeline will be replaced with a new 24" 300 psig distribution pipeline that will operate below 20% of the Specified Minimum Yield Strength (SMYS) therefore transferring the integrity management of the new pipeline to DIMP. The project will also include the replacement of regulators and associated facilities at both the South Grand Rapids and Collindale stations to allow for operation at the new 300 psig Maximum Allowable Operating Pressure (MAOP). In addition to improving safety and reliability, the new pipeline will provide increased capacity and pressure that will allow for future system reliability upgrades in the Grand Rapids area.

DTE Gas' cost estimate for this project is approximately $30M.

Cross Bore Inspections

DTE Gas began piloting cross bore inspections in 2017 and has now fully incorporated them into its procedures as a countermeasure to mitigate against leaks in its distribution system. A cross bore occurs when a natural gas main or service is installed through another utility. A natural gas line cross bored through a sewer creates an elevated risk (See Figure 38), where, for example, a mechanical sewer drain cleaner could puncture the natural gas line.

Cross bore example – Figure 38



DTE Gas performs cross bore inspections when trenchless methods are used to install distribution pipes. The inspections are meant to locate sewer laterals prior to construction to avoid creating interference, or to verify that natural gas construction has not resulted in damage to underground sewer structures. The Company's goal is to either complete a pre- or post-construction sewer inspection for all distribution work utilizing HDD, to mitigate the risk of cross bore damage.

Performing pre- or post-construction sewer inspections allows DTE Gas to find, remediate, and analyze cross bore risk within the distribution system. DTE Gas also performs targeted inspections in areas based on historical data as needed. In 2022, DTE Gas began its Legacy Inspection Program targeting potential legacy cross bores through its risk assessment program and plans to continue the program into the future. In 2024, DTE Gas performed 25,634 sewer line inspections and plans to invest approximately $80M in capital on its pre- and post-construction cross bore inspections from 2026 to 2035.

Ground Movement Mitigation Program

On September 11, 2021, DTE Gas experienced a significant ground heave event caused by overloading of soils by a third party at a scrapyard in Detroit, Michigan. This event caused multiple cast iron natural gas pipe breakages, customer outages and threatened the integrity of high-pressure steel pipelines supplying natural gas to critical customers in the area. The Company responded by isolating affected natural gas pipelines to ensure public safety and rapidly constructing bypass pipelines to maintain critical natural gas supplies. DTE Gas then performed integrity testing of the affected high-pressure pipelines, conducted detailed engineering analyses to determine short term and long-term soil stability in the area, and began reconstructing impacted pipelines. These analyses resulted in the decision to permanently relocate the high-pressure pipelines away from the scrapyard to avoid future potential ground movement risks.

In response to the Fort Street and Dearborn Street event, DTE Gas developed a state-wide plan to identify sites with risk of ground movement, evaluate the impacts on its natural gas pipelines, and remediate any detrimental conditions. DTE identified 46 sites and completed engineering field investigations to evaluate the site conditions. As a result of this work, 15 sites were identified as requiring periodic monitoring, while the other 31 sites required no further action. Additionally, guidance was provided to field employees to assist in identifying sites with ground movement risk.

Based on the results of two years of periodic monitoring, the 15 monitored sites have shown no significant findings and require no further action (as they present low risk of geotechnical failure affecting DTE Gas natural gas pipelines based on current site conditions and operations). As a result, unless new sites are identified, the Company does not anticipate further action related to ground movement.

System Overpressure Countermeasures

In response to the Columbia Gas Merrimack Valley overpressure incident in 2018, DTE Gas took steps to enhance overpressure protection on its distribution system. This includes implementation of enhancements to the Company's regulator station maintenance program, development of a Regulator Station Replacement Program (RSRP) to enhance overpressure protection and to replace legacy regulators, and enhancement of pressure monitoring of the company's distribution systems. DTE Gas has included approximately $400M in its 10-year capital plan for overpressure risk remediation.

Enhanced Regulator Station Maintenance Program

Regulator station inspections are essential to maintaining the integrity and safety of the Company's assets. These inspections help proactively identify potential issues before incidents occur and support risk mitigation efforts.

In 2024, DTE Gas launched a pilot program to expand regulator station inspections across its distribution system. This initiative included targeted district regulator rebuilds incorporating the replacement of key regulator soft goods internal parts such as o-rings and diaphragms, as well as performing operability and integrity inspections of secondary and service line regulators. During this pilot, the Company completed inspections of 678 secondary regulators and 401 control line operated service regulators that did not have overpressure protection. Additionally, the Company rebuilt regulators at 16 district regulator stations, replacing soft goods in targeted locations where there was a higher potential for damage due to debris from recent construction and operational activities occurring upstream of the regulator stations. In 2025, the Company adopted these enhanced maintenance practices as part of its ongoing operations (See Table 9).

Additional Regulator Station Maintenance Activities – Table 9

Additional Maintenance Measures		
Station Type	**Frequency**	**Activity**
District Regulators	5 year cycle	Soft goods replacement**
Secondary Regulators	3 year cycle	Integrity & Operability Inspections
Service Regulators*	5 year cycle	Integrity & Operability Inspections

*Control line operated service regulators without overpessure protection
**Excluding legacy regulators for which soft goods are not available

Legacy regulators

DTE Gas currently operates approximately 2,500 regulator stations with legacy regulators, accounting for roughly 31% of the Company's total distribution regulator stations. These legacy regulators pose increased risks of overpressure and service outage due to their age, condition, and the limited ability to repair or rebuild them during maintenance periods. While the Company has been replacing legacy regulators annually through its System Reliability Program, the current pace of replacement is insufficient to address the large number of aging regulator assets within the distribution system and for this reason the Company is implementing a Regulator Station Replacement Program to accelerate replacement.

Regulator station risk analysis

In anticipation of new regulations stemming from the Department of Transportation's Protecting our Infrastructure of Pipelines and Enhancing Safety (PIPES) Act of 2020, DTE Gas is conducting an engineering assessment of its distribution regulator stations. Based on the results of this assessment, DTE Gas will develop a risk-based program to identify common mode failure threats at its district regulator stations. As part of this effort, DTE initiated a 2024 pilot project that evaluated 206 district regulator stations using Failure Mode and Effects Analysis (FMEA) to identify potential risks to the regulator stations including common mode failure risks where both the operating regulator and overpressure protection device could fail simultaneously due to a shared cause. The Company will complete FMEA evaluations across all district regulator stations in 2025. In parallel, DTE Gas is reviewing its secondary and control line operated customer service regulator stations to identify those without overpressure protection. This data will be incorporated into the Company's probabilistic risk models to aid in prioritizing remediation of its regulator stations.

Regulator Station Replacement Program

DTE Gas is implementing a Regulator Station Replacement Program targeted at replacing legacy regulators, mitigating common mode failure risks, and upgrading regulator stations lacking overpressure protection. The program is to be completed over a 20-year timeline with an initial three year ramp up to scale and will be guided by prioritization from the company's probabilistic risk analysis results. The program will be closely coordinated with the existing GRP to maximize efficiency, minimize operational disruption and, where practical to eliminate regulator stations by expanding the Company's lower pressure distribution systems. All district regulator replacements will include design enhancements to improve safety, reduce risk, and mitigate common mode failure threats.

Enhanced pressure monitoring

DTE Gas primarily monitors its distribution system using electronic chart recorders (e-charts), with limited deployment of SCADA technology. This monitoring provides critical data to validate hydraulic system models, identify low-pressure areas, and assess opportunities to enhance system reliability. Alarm-enabled monitoring allows for rapid operational response to abnormal conditions such as overpressure events or supply disruptions. The Company is investigating many options to improve system monitoring including:

- Installing additional e-charts
- Transitioning to SCADA for real-time pressure monitoring with faster data polling
- Incorporating advanced meter technologies

Beginning in 2018, DTE Gas upgraded its district regulator station designs to include installation of upstream and downstream e-chart monitoring, which provides improved tracking of regulator performance. In 2024, DTE Gas installed 54 additional e-charts at secondary regulators and other targeted locations to proactively identify potential overpressures. Transitioning to SCADA is expected to improve the data available to DTE Gas' Operations and Engineering teams and is expected to help DTE Gas identify potential problems before they occur. DTE Gas is also evaluating multiple new meter technologies that are capable of monitoring pressures and generating alarms on service lines downstream of secondary regulators as well as at customer delivery points. These potential pressure monitoring enhancements will be considered as part of the Meter Replacement Program.

Energy & Environmental Justice (EEJ)

EEJ is an evolving planning principle within DTE Gas. The Company has begun assessing the impact of its capital investments within EEJ communities, leveraging the MiEJ screening tool with a focus on the GRP.

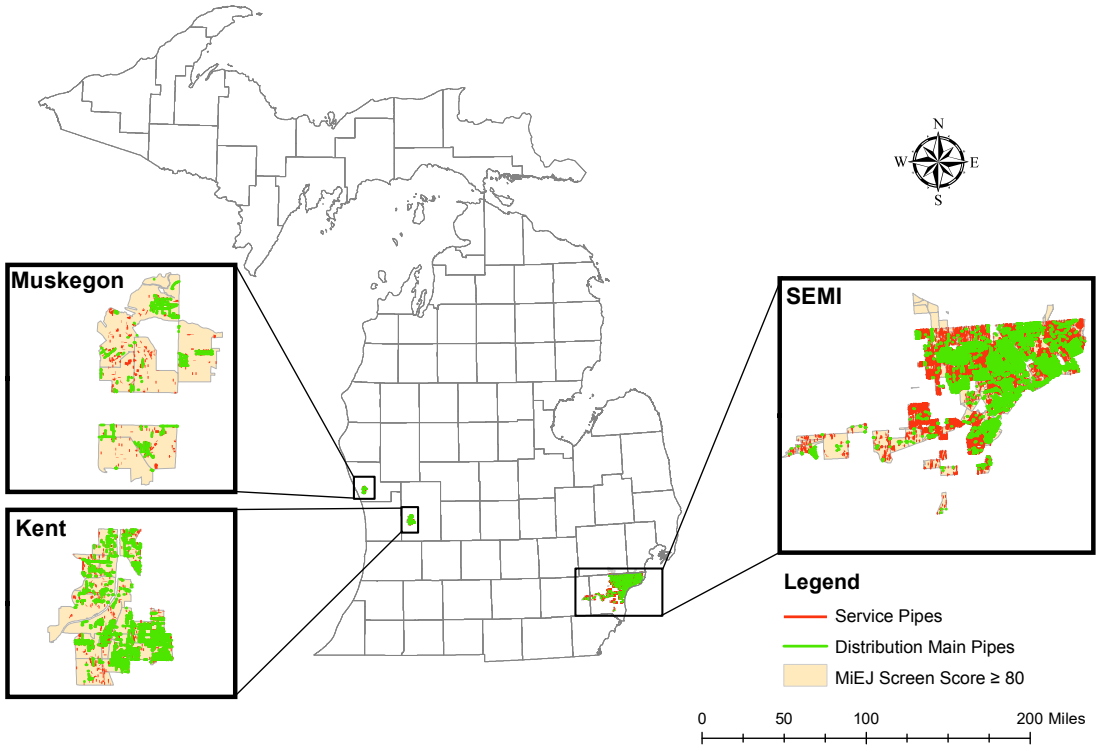
Utilizing the MiEJ screen tool hosted by the Michigan Department of Environment, Great Lakes**,** and Energy (EGLE), DTE Gas defines a vulnerable or EEJ community as one with a composite score at or above the 80th percentile.

Because the GRP represents almost 40% of the total forecasted capital spending in 2025-2027, the Company has focused its EEJ review on the completed and planned GRP capital work. This review demonstrates the impact GRP is making within these EEJ communities.

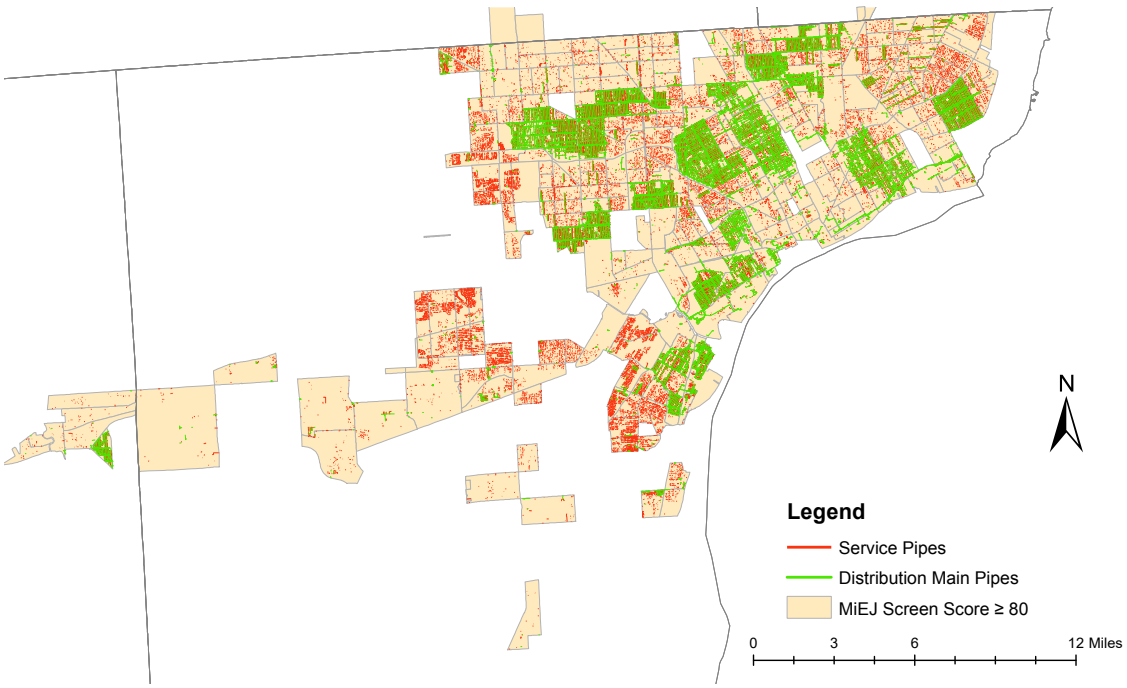
As previously mentioned, DTE Gas GRP plays a critical role in enhancing the safety and reliability of the Company's natural gas delivery system. By proactively replacing aging pipelines with modern, corrosion-resistant materials, the Company significantly reduces the risk of leaks and system failures. This not only protects its customers and communities from potential hazards such as gas leaks and explosions but also supports environmental stewardship by minimizing methane emissions.

Over the past 5 years, over 30% of GRP work has been completed within a vulnerable or EEJ community as illustrated in Figures 39 and 40.

Service and Distribution Pipelines in Michigan for MiEJ Area with Screen Scores ≥ 80 (2020 – 2024) – Figure 39

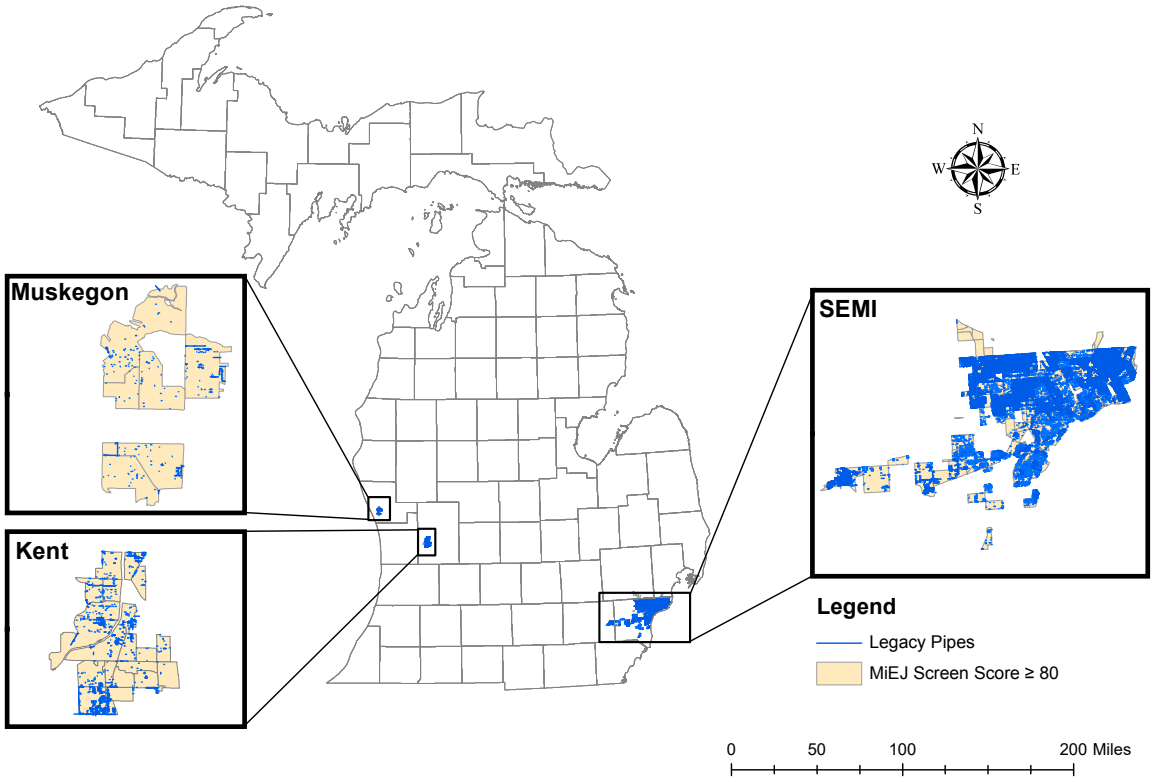


Service and Distribution Pipelines in SEMI for MiEJ Area with Screen Scores ≥ 80 (2020 – 2024) – Figure 40

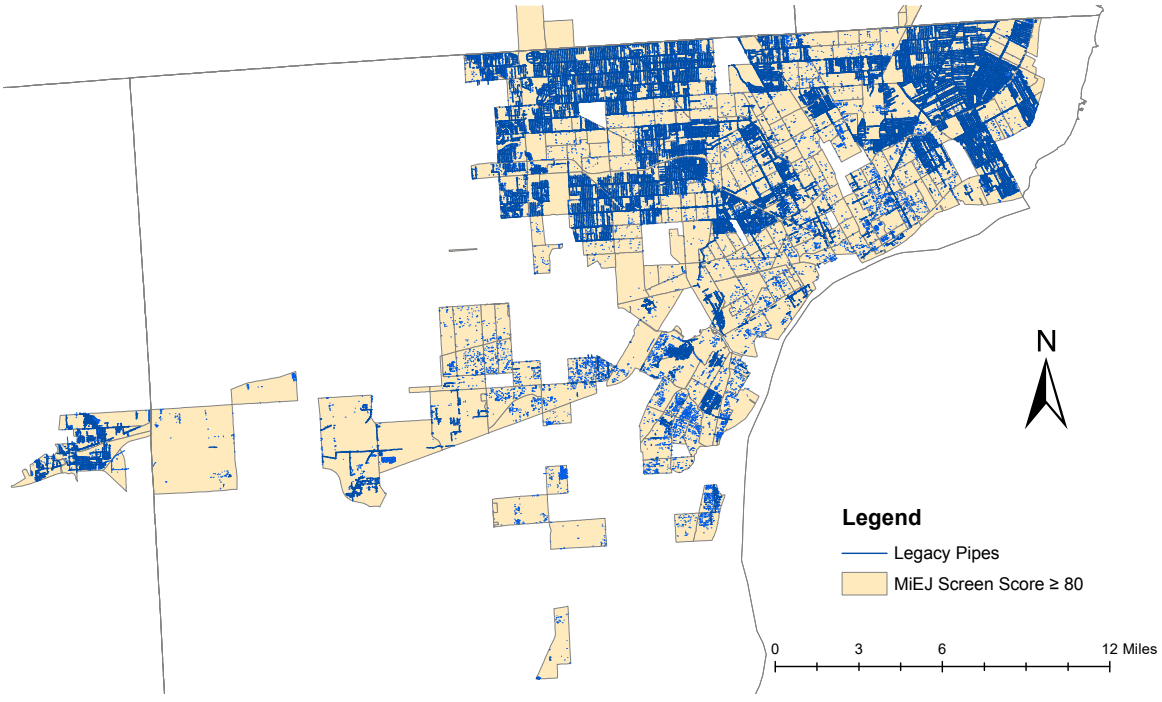


As DTE Gas refines its long-term GRP strategy, the Company plans to complete approximately 47% of its remaining work over the next decade within EEJ communities – demonstrating its commitment to environmental responsibility. The remaining legacy pipeline to be replaced is illustrated in Figures 41 and 42.

Legacy Pipes in Michigan for MiEJ Area with Screen Scores ≥ 80 – Figure 41



Legacy Pipes in SEMI for MiEJ Area with Screen Scores ≥ 80– Figure 42

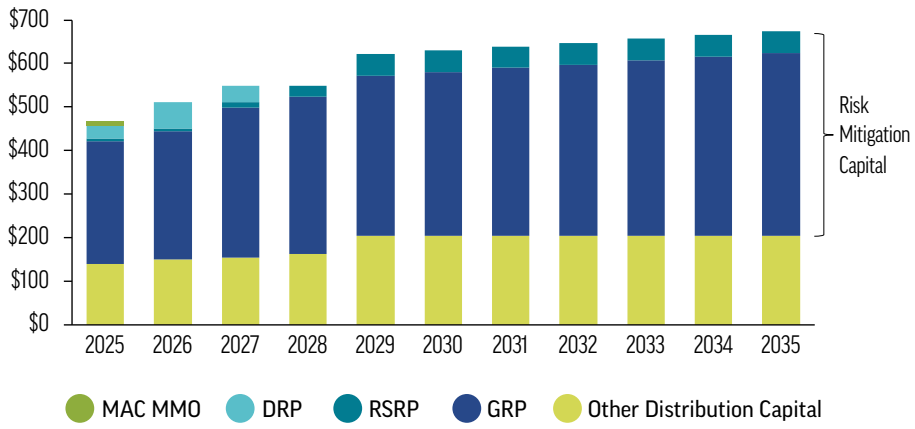


Distribution Capital Financial Summary

Over the next ten years, DTE Gas' largest distribution system capital investment plan will be its GRP, which targets to remediate more than 2,000 miles of legacy distribution pipeline by 2037. This effort will modernize distribution infrastructure to improve reliability and safety while also supporting the Company's environmental responsibility by significantly reducing methane emissions due to gas leaks. By 2037, the work under the GRP is expected to be completed when all feasible inside meters have been moved outside and legacy distribution mains have been retired. Another priority area of future distribution capital investment plans to be the DRP.

Overall, DTE Gas expects annual capital investment in the distribution system to remain between $510M and $675M per year, with 69% of this capital dedicated to risk mitigation activities. The remaining 31% is focused on other critical routine infrastructure projects such as service alterations and public improvements (See Figure 43).

Distribution 10-year Capital Plan ($M) – Figure 43



DTE Gas' distribution asset plan aligns with the Company's key objectives of mitigating risks for safety and reliability, avoiding future O&M expenses that would impact customer affordability, and reducing methane leaks to help achieve the net zero GHG emissions target for the distribution system by 2050.

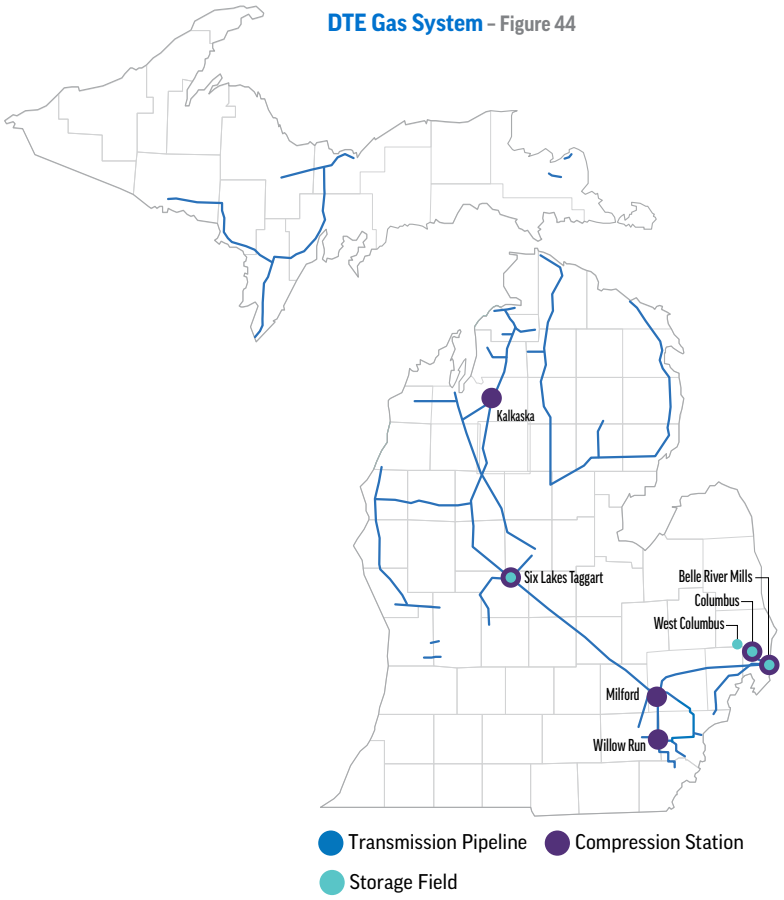
SAFE

DEPENDABLE

SECTION 7: TRANSMISSION ASSET PLAN

As described in the Gas Safety section, there are two key industry risks associated with natural gas transmission assets – Gas Supply and Deliverability, and Transmission Pipeline Failure. The main drivers for these risks are a lack of system redundancy and potential integrity issues largely due to the age of the natural gas transmission infrastructure (pre-1970).

DTE Gas System – Figure 44



The DTE Gas key countermeasures for these two risks are:

- Transmission Renewal Program (TRP)
- System redundancy
- Interconnects with other gas utilities
- In-Line Inspection (ILI) Expansion Program
- Stress Corrosion Cracking (SCC) pipeline assessments
- Class 1 and Class 2 facility integration into Geographic Information Systems (GIS) and the probabilistic risk model
- Transmission MAOP Records Remediation and Records Management Plan (previously discussed in the *Gas Safety* section)

DTE Gas is investing approximately $700M over the next 10 years to implement these countermeasures.

Transmission Assets Overview

DTE Gas' natural gas transmission system consists of approximately 2,000 miles of pipelines spanning the Upper and Lower Peninsula, as illustrated in Figure 44.

The function of the transmission system is to transport natural gas from interconnects and storage fields to city gate stations. Compressor stations, used in conjunction with the transmission system, increase the gas pressure for transport along the pipelines and inject into or withdraw gas from storage fields as needed.

Supply and Deliverability Risk

Two major factors impact supply deliverability. The first is the potential lack of supply due to a pipeline event. For example, when only one pipeline serves a region, referred to as a "single source" pipeline, and natural gas delivery is disrupted due to a pipeline incident, then there is potential for customer outages. Certain single source pipelines are at risk for significant customer outages. Alternatively, some pipelines are not single source, but the risk of high customer outages still exists because multiple sources are needed to supply the system during times of higher natural gas usage in the winter. In this case, an event on one of the pipelines in a multi-sourced area of the system creates the potential for customer outages during times of high natural gas usage. Redundant pipelines and alternate supply sources, including an additional interconnect, effectively mitigate this risk by improving system resiliency and reliability. DTE Gas is addressing its highest-priority natural gas supply and deliverability pipelines through its TRP projects, such as the Van Born Project (described below) and other similar projects.

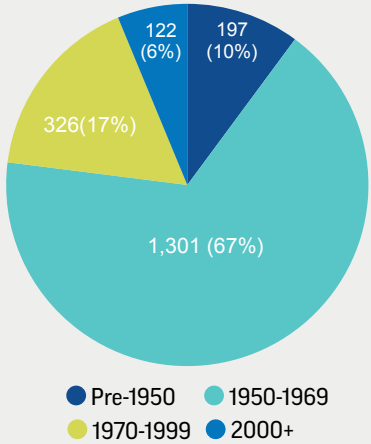
The second factor posing a risk to deliverability is a potential supply disruption driven by the lack of equipment redundancy. When evaluating natural gas storage field deliverability, it is essential that field capabilities and corresponding above-ground equipment are designed to meet the highest customer demand. Like the need for transmission pipeline redundancy, equipment redundancy is equally important to address unexpected events and ensure reliability. DTE Gas reviewed several options regarding how to address this risk at the Belle River dehydration plant and determined the optimal mitigation strategy was to install a redundant dehydration plant, which is described in further on page 58.

Transmission Pipeline Failure Risk

Approximately 77% (1,499 miles) of DTE Gas's transmission pipelines was installed pre-1970, prior to the issuance of the federal pipeline safety standards (See Figure 45).

Pre-1970 construction practices often employed welding techniques that are different from construction practices today. Additionally, pipelines manufactured pre-1970 could be vulnerable to seam quality issues whereas pipelines manufactured post-1970 are manufactured with more advanced methods and utilize steel with improved properties. Pre-1970 pipelines can be more susceptible to transmission events and are a main factor of transmission risk. As a preventative risk mitigation measure, DTE Gas routinely performs assessments of its transmission pipelines to identify and remediate any potential issues that could cause a pipeline event. However, the Company's system continues to age, and certain transmission lines will require remediation through the Transmission Renewal Program (TRP).

Transmission System Mileage by Installation Decade – Figure 45



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Transmission Risk Countermeasures

Transmission Renewal Program (TRP)

DTE Gas developed a risk-based Transmission Renewal Program (TRP) to address both gas supply and deliverability and transmission pipeline failure risks and to enhance the integrity and reliability of its natural gas delivery system.

The Company implemented a probabilistic risk model in 2021 for the Transmission Integrity Management Program (TIMP) to better model system risk. Using this new model, the Company now prioritizes pipelines that need upgrading or replacement based on the following main factors: pre-1970 installation, high stress in steel, corrosion growth rates, population density, customer outage potential, and comprehensive ILI data. Pre-1970 transmission pipelines were built before stringent federal codes were established. High stress in steel refers to pipelines that are operating near 50% of the Specified Minimum Yield Strength (SMYS). SMYS is the level of stress a pipeline can withstand before it deforms. Pipelines operating at stress levels 30% or greater are more likely to rupture rather than leak. DTE Gas is now utilizing corrosion growth rates to determine pipeline time-to-failure rates and ensure timely remediation of identified pipelines. A transmission pipeline failure would be a significant event, which is why a pipeline failure within a densely populated area is an important factor in the Company's risk model. Lastly, customer outage potential directly contributes to the Gas Supply & Deliverability risk as previously described. A major incident on a pipeline with high outage potential could disrupt natural gas supply to thousands of customers.

Top 10 TRP Pipelines* – Table 10

Rank	Pipeline / System	Risk Type	Mitigation
1	Milford – Belle River (E)	Integrity	Additional ILI, Defect Remediation, and Patrolling
2	Van Born 30"	Integrity	Segment Replacement
3	Evergreen	Integrity	Segment Replacement
4	Milford Loop (L)	Integrity	Additional ILI, Defect Remediation, and Patrolling
5	Belle River - Detroit	Integrity	Additional ILI, Defect Remediation, Patrolling
6	Austin – Detroit C	Integrity	Segment Replacement
7	Austin – Detroit B	Integrity	Segment Replacement
8	Austin – Detroit A	Integrity	Segment Replacement
9	Milford (K)	Integrity	Segment Replacement
10	Milford – Belle River (F)	Integrity	Additional ILI, Defect Remediation, Patrolling

* Regarding the top 10 transmission pipelines prioritized for remediation, not all the pipelines are planned for replacement (see Table 10) due to segment replacement not being a viable option for risk reduction. The reason is replacement will not always eliminate the risk of consequence. There may be other effective means to address the identified risk. The Company's focus project of Van Born and A&B Lines will be described further below.

The top 10 priority transmission pipelines for remediation (Table 10) have been updated from the prior GDP utilizing the Company's new probabilistic risk model. The inputs for risk evaluation are constantly evolving, and therefore, the risk ranking of pipelines has and will continue to change accordingly. For example, the Van Born 36" pipeline has shifted risk ranking position but continues to be a focus of DTE Gas due to the potential risk of significant customer outages from the failure of this pipeline being much higher than any other pipeline in the DTE Gas system. A major incident on this pipeline, the primary natural gas supply source to the southeast markets, could result in an unprecedented outage with unacceptable impacts to approximately 160,000 customers during the winter heating season. The largest outage DTE Gas experienced was in October 2011, in the Grand Rapids area, where 6,000 customers lost service on a relatively warm 50-degree Fahrenheit day. The recovery effort required 145 employees from across the state and took nearly four days to complete. An incident on the Van Born 36" pipeline would be 26 times larger and would require mutual aid. It could be further complicated due to winter conditions, potentially causing businesses to close and requiring the need for customer warming centers and/or temporary relocations. Hence, the Company prioritized the mitigation of the Van Born pipeline based on a broader and more impactful consequence of failure than the overall risk output. The Van Born Project began construction in May 2023 and is scheduled to be placed in service in 2025.

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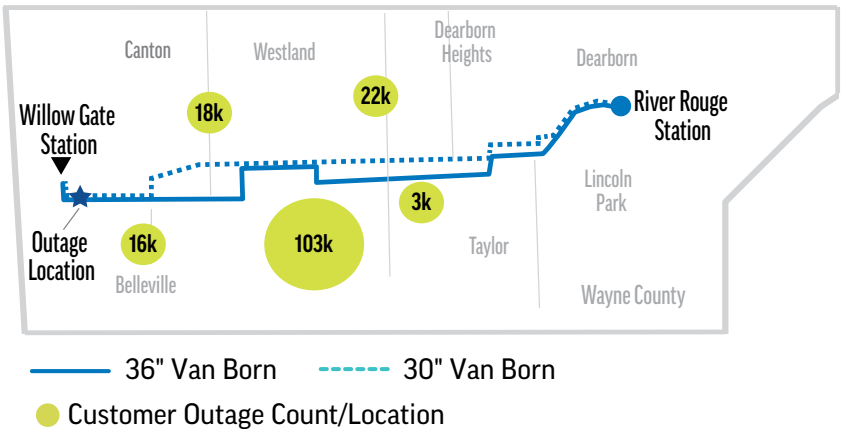
VAN BORN

The Van Born system consists of two pipelines. The first is a 30" 540 psig pipeline that supplies natural gas to two large industrial customers and the Miller Road District Regulation Station. The second is a 36" 300 psig pipeline that is a primary source of natural gas supply to the Company's SEMI residential, commercial, and industrial market. As stated above, a major incident on the 36" pipeline could result in an unprecedented outage with unacceptable impacts to approximately 160,000 customers during the winter heating season (See Figure 46).

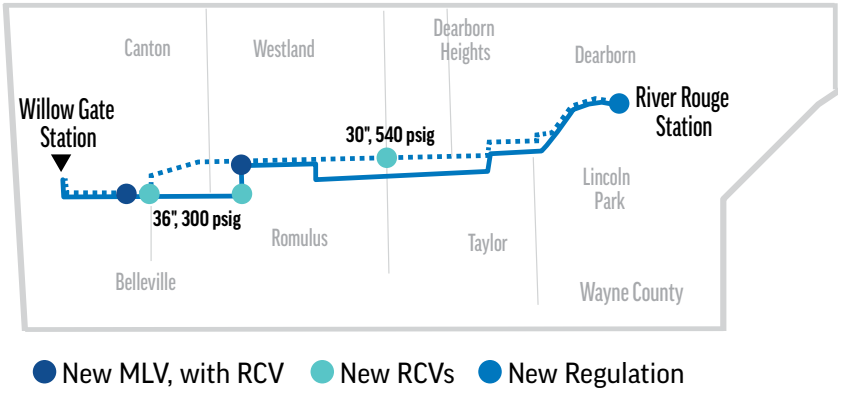
The Van Born remediation project (See Figure 47) consists of installing new regulation equipment at the Rouge Station, the installation of new main line valves (MLVs) to sectionalize the 36" 300 psig pipeline, and the installation of Remote-Control Valve (RCV) operators across the Van Born project to allow for a quick reconfigure of the system. These system modifications permit redundant natural gas supply to DTE Gas' SEMI service territory and reduce the risk of potential outages affecting 160,000 customers to fewer than 1,400 customers on a peak winter day.

The new regulation system at the Rouge Station takes natural gas from the 30", 540 psig system and reduces it to 300 psig for use on the 36" Van Born Pipeline. DTE Gas is forecasting to complete this project in 2025 for approximately $63.4M.

Van Born Customer Outage Potential – Figure 46



Van Born Project Plan – Figure 47



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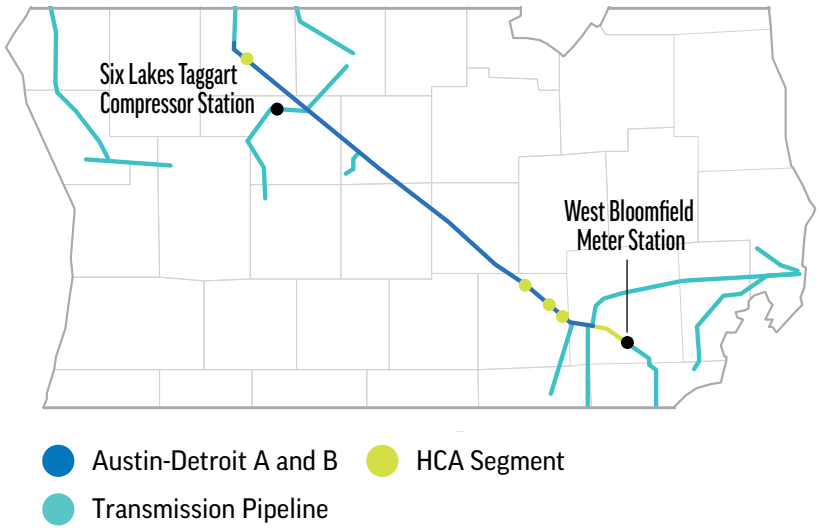
A&B LINES

DTE Gas' A&B Lines (Austin – Detroit A and Austin – Detroit B) connect the Six Lakes (Taggart) storage field to the SEMI market at the West Bloomfield Station as illustrated in Figure 48. These pipelines were originally designed and installed in 1948 and 1951, respectively. At the time these pipelines were installed, this area was designated as Class 1 locations. Since these pipelines were installed, the area has grown into a high density-population area. As shown in Table 10, the A&B Lines rank in the top 10 risk-ranked pipelines. The potential risk is primarily due to the legacy pipeline manufacturing and construction practices at the time of installation.

Specifically, the A&B Lines include pipe that was manufactured by A.O. Smith. The industry has learned over time that A.O. Smith pipes have potential defects on the long-seam and hard-spot defects. These defects have been alleged to be the cause of past industry pipeline failures. Some examples of industry failures that allegedly involved A.O. Smith pipe include a Panhandle Eastern failure in 2008 and Enbridge failures in 2003 and 2019.

Additionally, the 1940's construction practices of the Austin-Detroit A Line were not as robust as they are today. This pipeline is one of six transmission pipelines in DTE Gas' system that were constructed using "wrinkle bends" when the pipeline changed direction. This practice is no longer used when constructing pipelines today since "wrinkle bends" are known to create potential high-stress areas on the pipeline. These high-stress areas have been known to cause industry pipeline failures. Some examples of industry failures that involve "wrinkle bends" include a Southern Natural Gas failure in 2009 and a Kinder Morgan failure in 2010.

A&B Lines – Figure 48



The A&B Lines also require extensive remediation compared to the other pipelines in our system. This is due to the legacy manufacturing and construction methods mentioned above compounded by the additional assessment and more stringent remediation requirements from both the first and second MEGA rule implementations.

The A&B Lines are currently scheduled for ILI in 2025 and 2026 utilizing the Company's normal assessment tools including hard spot, with plans in 2027 to run EMAT tools, which are assessment tools not run on these lines in the past. By using these methods the Company can better assess the condition of these pipelines and identify areas of needed pipeline remediation. The plan is to incorporate findings from these assessments to update the proposed remediation plan for pipeline replacement prior to the next assessment in 2033.

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System redundancy

To ensure pipeline gas quality standards are met, natural gas withdrawn from storage usually flows through processing equipment to remove excess moisture. Moisture is removed to ensure compliance with pipeline quality standards permitting the natural gas to be delivered to customers and helping to ensure the integrity of the pipeline. While some excess capacity is incorporated into the design of the processing equipment, which consists of filtration and dehydration equipment, redundant equipment is not typically installed at the majority of DTE Gas' storage facilities.

BELLE RIVER DEHYDRATION PLANT (DEHY)

As part of the results of the MPSC SEA, and following Consumer Energy's Ray Compressor Station incident, utilities were required to review system vulnerabilities and address system redundancy gaps. Currently, DTE Gas relies on dehydration plant equipment associated with storage gas withdrawals to operate at maximum capacity to meet peak day design conditions (the highest possible demand that is projected to occur during extreme cold weather). In 2020, an impact analysis was performed based on modeled outages at each individual dehydration plant, and the Company determined that should a failure occur resulting in a prolonged outage at the Belle River dehydration plant, it would likely result in the Company losing the ability to deliver adequate amounts of natural gas during peak market demand.

On a winter design day, without this dehydration unit removing moisture from the natural gas withdrawn from the Belle River storage field, only a portion of such natural gas can be withdrawn from the field. Without the dehydration unit, any withdrawn natural gas would have to be blended with other natural gas from other storage fields to keep the moisture content below a specified level. Even when maximizing these blending capabilities, the amount of natural gas that can be withdrawn from the Belle River storage field is greatly limited.

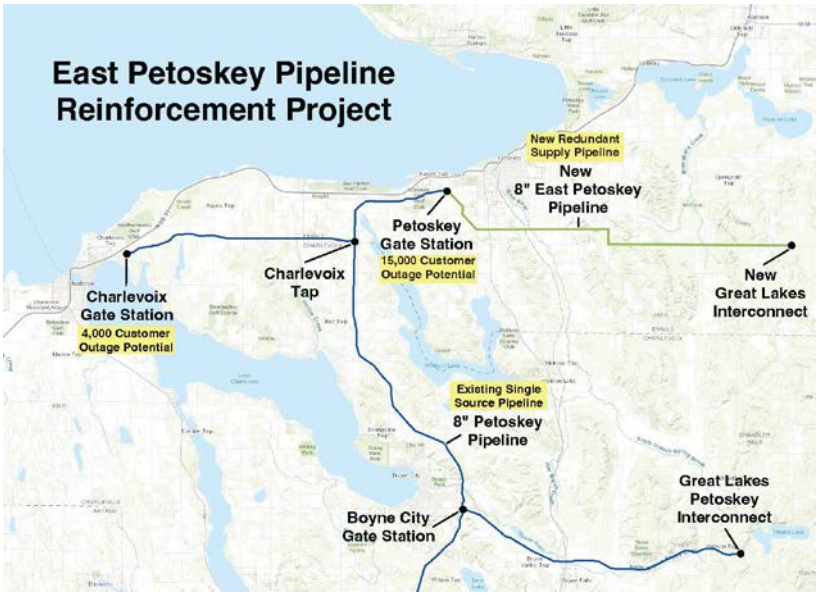
This loss of supply has the potential to create a natural gas supply deficiency within the Company's system. Due to the significant reliance on supply from this field and the impact of losing the dehydration plant at Belle River, the Company determined that the optimal mitigation strategy is to install a redundant dehydration plant. The plant was constructed in 2024 and was commissioned in 2025, with a total project cost of $30M.

EAST PETOSKEY PIPELINE REINFORCEMENT PROJECT

The existing 8" Petoskey Pipeline is a single source pipeline that is planned to be ILI in 2028. Assessing the existing pipeline through ILI mitigates potential pipeline rupture risks, in the event that the tool gets stuck due to lower flexibility during ILI, it would likely result in an unprecedented outage of up to 19,000 DTE Gas customers. Installation of the East Petoskey Pipeline will allow for pipeline integrity assessments to be conducted on the existing 8" Petoskey transmission pipeline using ILI by providing a redundant supply of gas to Petoskey, Charlevoix, Harbor Springs, and surrounding areas mitigating outage risks from a stuck inspection tool. The new pipeline will also mitigate potential third-party damage or other outage scenarios (See Figure 49).

This project includes construction of a new interconnection with Great Lakes Gas Transmission, a 13.5-mile 8" diameter East Petoskey distribution pipeline that will run from a new interconnect station to the Petoskey Gate Station. In addition to the new pipeline, new Remote-Control Valves (RCVs) are to be installed at Petoskey Gate Station, Charlevoix Tap, and Boyne City Gate Station. This project is estimated to cost approximately $40M and is scheduled to be placed in-service by September 2027.

East Petoskey Pipeline Reinforcement Project – Figure 49



PIPELINE INTERCONNECTS AND REDUNDANCY

The interconnectedness of the transmission system and existing pipeline redundancies contribute to system resiliency by allowing for operational flexibility during planned and unplanned outages.

As mentioned in the Gas Demand and Supply section, DTE Gas has more than 30 major interconnects with nine different pipeline companies. These interconnects increase the Company's diversity of natural gas supply. As recognized by the MPSC in their SEA report: "Within the transmission system, interconnections allow for redundancy by having multiple sources of supply." DTE Gas' historical interconnection projects include NEXUS which, in addition to increasing security and diversity of supply, has lowered the cost of gas for GCR customers.

To further enhance operational flexibility and supply diversity, and to increase protection against customer outages during an operational emergency, DTE Gas has collaborated with Consumers Energy to identify a mutually beneficial site for an interconnect between the two companies. The result of the collaboration was the identification of a location, in Oakland County's Orion Township, where the DTE Gas E-Line and the Consumers Energy Line 2700 are in very close proximity to each other. To improve resiliency, the strategy is to construct a bi-directional meter station at this location in 2025. Both companies have storage fields near this proposed new interconnect, making it an ideal location. This interconnection, also known as the Oakland Resilience Interconnect, is expected to help maintain reliable gas supply for both companies, especially during periods of high gas demand in winter. This interconnect is expected to have the capability to flow up to 500 MMcf/d and can be used by either party to receive natural gas in the event of an operational emergency. The importance of having interconnect capability was demonstrated in 2019, when DTE Gas was able to provide emergency supply to Consumers Energy at its Northville Interconnect during Consumer Energy's Ray Compressor station outage. This project will greatly expand each company's ability to assist the other during unexpected outages or other events affecting their ability to deliver natural gas to their customers.

This project is estimated to cost approximately $7.4M.

In-Line-Inspection (ILI) Expansion Program

The Company's ILI Expansion program is designed to increase the coverage of transmission integrity assessments beyond the minimum requirements specified in the Michigan Gas Safety Standards (MGSS), Subpart O, Pipeline Integrity Management. This program proactively addresses the risk of transmission pipeline failure by not only assessing the most densely populated (HCA) miles as required by regulations but also assessing the non-HCA companion miles with a tool that can identify potential pipeline anomalies and enable the Company to remediate necessary defects.

DTE Gas started implementing the ILI Expansion program following the completion of required baseline assessments in 2012. The ILI method was chosen for the integrity assessment expansion program because ILI gathers the most comprehensive data about pipelines, is the most versatile method in terms of coverage of pipeline threats, and therefore, is the method preferred by most operators (See Figure 50). Further, assessment by ILI provides information beyond HCA to develop a full picture of the integrity of the assessed segment for continued service. Lastly, ILI is the most cost-effective assessment method based on normalized cost per mile.

DTE Gas Crew Performing an ILI Inspection – Figure 50

In April 2012, the Interstate Natural Gas Association of America (INGAA), in response to an NTSB recommendation, responded with a white paper titled "Historical and Future Development of Advanced In-Line Inspection (ILI) Platforms for Natural Gas Transmission Pipelines." In this document, INGAA stated that "INGAA members recognize that improving technology is critical to achieving its commitments by making more of the [pipeline] system conducive to ILI." In addition, "ILI is our most predictive and preferred tool for determining fitness for service."

There is consensus amongst the industry regarding the superiority of ILI for assessing pipelines. A January 2015 safety report by the National Transportation Safety Board (NTSB) (NTSB/SS-15/01, PB2015-102735) on "Integrity Management of Gas Transmission Pipelines in High Consequence Areas" stated that "ILI yields the highest per-mile discovery of pipe anomalies and the use of direct assessment (DA) as the sole integrity assessment method has numerous limitations." In this report, the NTSB recommended: (1) Expanding the use of ILI, especially for intrastate pipelines and (2) Eliminating the use of DA as the sole integrity assessment method for pipelines.

Under this program, pipelines previously assessed by methods other than ILI are retrofitted with the appropriate bends, barred tees, launchers, receivers, and valves to permit the passage of ILI tools. The selection of pipelines under the ILI Expansion program is based on a combination of the pipelines risk ranking from the Company's risk model and reassessment schedule for that specific pipeline to ensure pipelines are made ILI assessable at the appropriate time to coincide when the next assessment is due.

From 2012 to 2024, within the Company's service territory, over 800 miles of natural gas pipeline have been retrofitted for assessment by ILI. This has increased the total assessable HCA miles by ILI to 96.9% in 2024. From 2023 through 2025, DTE Gas' ILI expansion plan included the retrofit of an additional 209 miles of pipeline for inspection by ILI. These retrofits targets will increase assessments of HCA to 97% in 2025 and 99% by 2027 (due to abandonments and derations in the transmission system). The remaining approximate 1% of HCA miles will not be assessable by ILI due to the challenge of running small diameter tools due to the length of tool required, differential pressure needed to move the tool, too low of a gas flow rate to keep the tool moving, or the HCA miles being located in a station where ILI assessments are impractical. For this mileage, DA will be used to assess the condition of the pipelines to ensure the Company is assessing 100% of HCA as required by regulations. After the completion of the ILI Expansion program, DTE Gas plans to address a total of seven pipelines that do not currently have permanent ILI launcher and receiver facilities, to reduce risks inherent in the transportation, retesting and installation of portable traps as well as the associated annual expenses. The average O&M expense for the ILI assessment every seven years is between $0.3M to $0.5M for these seven pipelines associated with transportation and installation of portable separators, piping, and pig traps.

Installing permanent traps will allow DTE Gas to eliminate these costs and would be consistent with the rest of the pipelines in the Company's system that have permanent facilities in place that allow assessment with ILI (See Figures 51 and 52).

Class 1 and Class 2 facility integration into GIS and the probabilistic risk model

To perform risk assessments of DTE Gas' transmission stations in Class 1 and Class 2 locations, these stations' pipeline attributes must be loaded into the Company's GIS system. Once this information is loaded, the Company will utilize the transmission probabilistic risk model to calculate potential risk and develop any potential countermeasures for these stations.

DTE Gas began executing a plan in 2022 by first locating and scanning the physical records related to these Class 1 and Class 2 transmission stations. After scanning, these records are incorporated into a central repository for the development of each sites' Station Feature Lists (SFL). The SFL will document the piping at each of these stations. Once an SFL is created, the Company will go through a QA/QC process prior to such records being loaded into GIS. The overall plan is to have all station piping in GIS by May 31, 2031, and perform risk calculations for the stations that are added every year with the ultimate goal of running risk for all station piping by June 30, 2031.

Stress Corrosion Cracking (SCC) pipeline assessments

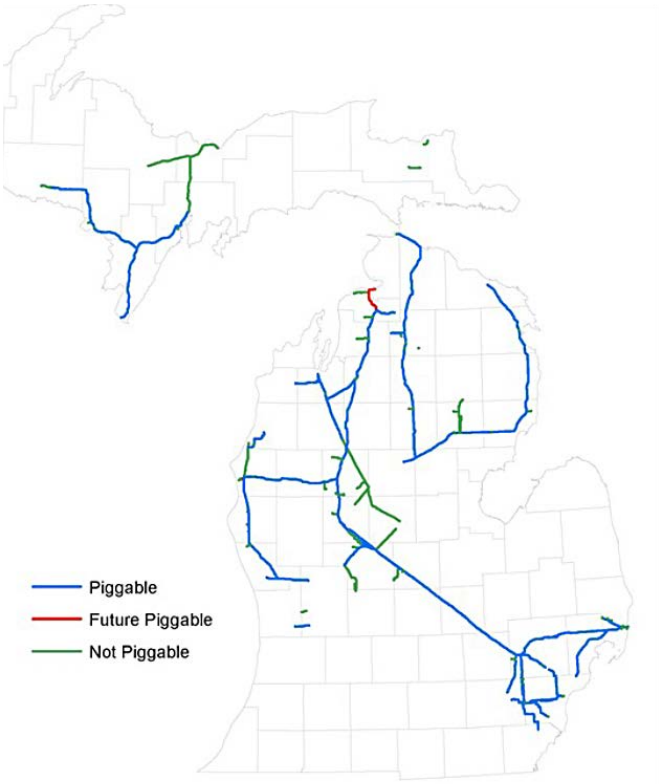
A potential natural gas pipeline threat is stress corrosion cracking (SCC). SCC is cracking resulting from a combination of (1) Stress on the pipeline due to the pressure in the line and (2) A corrosive environment that could lead to a transmission failure.

Various factors are required to determine if a pipeline could be susceptible to SCC. These factors include operating pipeline stresses above 60% SMYS, operating in temperatures above 100°F, pipelines operating within 20 miles of a compressor station, and the utilization of certain pipeline coating types. There are four pipelines on the DTE Gas system that meet this criterion and the Company is actively performing DA on these pipelines to look for any indications of SCC.

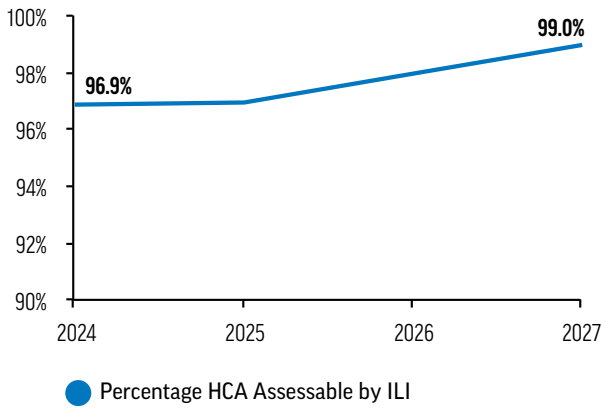
In addition, DTE Gas checks for SCC when performing remediation as part of regular pipeline assessment work (regular DA or ILI). The Company performs this additional check as a proactive step to minimize risk.

DTE Gas performed benchmarking with other utilities and found utilities that have previously had SCC-related failures are now utilizing Electro Magnetic Acoustic Transducer (EMAT) ILI tools, the best available technology to detect SCC. Typical ILI tools do not have the ability to detect SCC, and therefore, EMAT inspection is required for the purpose of detecting SCC.

Current and Future ILI Pipelines – Figure 51



ILI Annual Targets – Figure 52



Although DTE Gas has not had any incidents due to SCC and has not found any SCC on its system, the Company believes it is vitally important to proactively ensure it uses the best tools available to assess for possible SCC. Therefore, for the pipelines that could be susceptible to SCC, the Company commenced deployment of EMAT tools in 2022. The incremental O&M costs to perform these assessments total approximately $7.6M over the 10-year period, including anticipated remediation costs.

Transmission Operations Environmental Responsibility

Transmission Operations - Blowdown emissions reduction

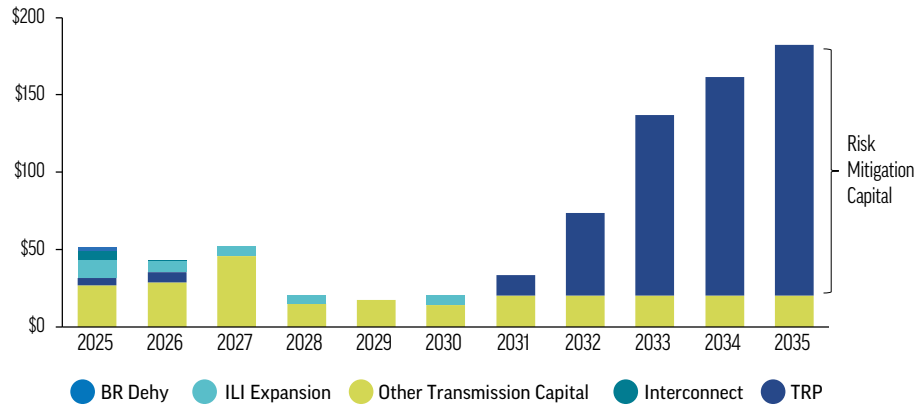
To enable the safe execution of pipeline construction activities, affected pipeline segments are isolated and gas is vented prior to construction. Under normal practice, venting typically occurs at pressures of approximately 200 psig.

To reduce overall GHG emissions from gas venting, DTE Gas is utilizing portable compression equipment to move gas from the intended work segment to an adjacent segment of the pipeline and then venting the work segment at pressure lower than 50 psig. DTE Gas used portable and stationary compression to reduce vented gas by 79% in the period of 2021 – 2024. DTE avoided venting over 550 million cubic feet of natural gas in that same period, this reduction resulted in approximately 250,000 metric tons of CO2e-avoided. This avoided venting is driven by the size and nature of the projects year to year. DTE Gas continues to investigate other alternatives to minimize the venting of gas directly into the atmosphere.

Additionally, the Company continues to monitor developments for the new proposed rules regarding GHG emissions reduction across the industry.

Transmission Capital Financial Summary

Transmission 10-year Capital Plan ($M) – Figure 53



DTE Gas plans to more than double the capital investments in its transmission system over the next 10 years as it continues to implement the TRP. Over the next 10 years, roughly 70% of DTE Gas' transmission capital expenditures are planned to be focused on the top countermeasures described herein. The remaining 30% will be dedicated to routine maintenance and special projects essential to the continued performance of the transmission system (See Figure 53).

By 2035, DTE Gas expects to have completed four TRP projects, mitigating outage risks for more than 250,000 customers, increasing safety and reliability by further preventing potential transmission pipeline events. The Company aims to utilize ILI to assess approximately 99% of its HCA mileage, while further increasing the interconnectedness of its system. DTE Gas' journey to modernize its transmission system will continue beyond 2035, however, and the Company plans to continue to prioritize future project needs based on its probabilistic risk model.

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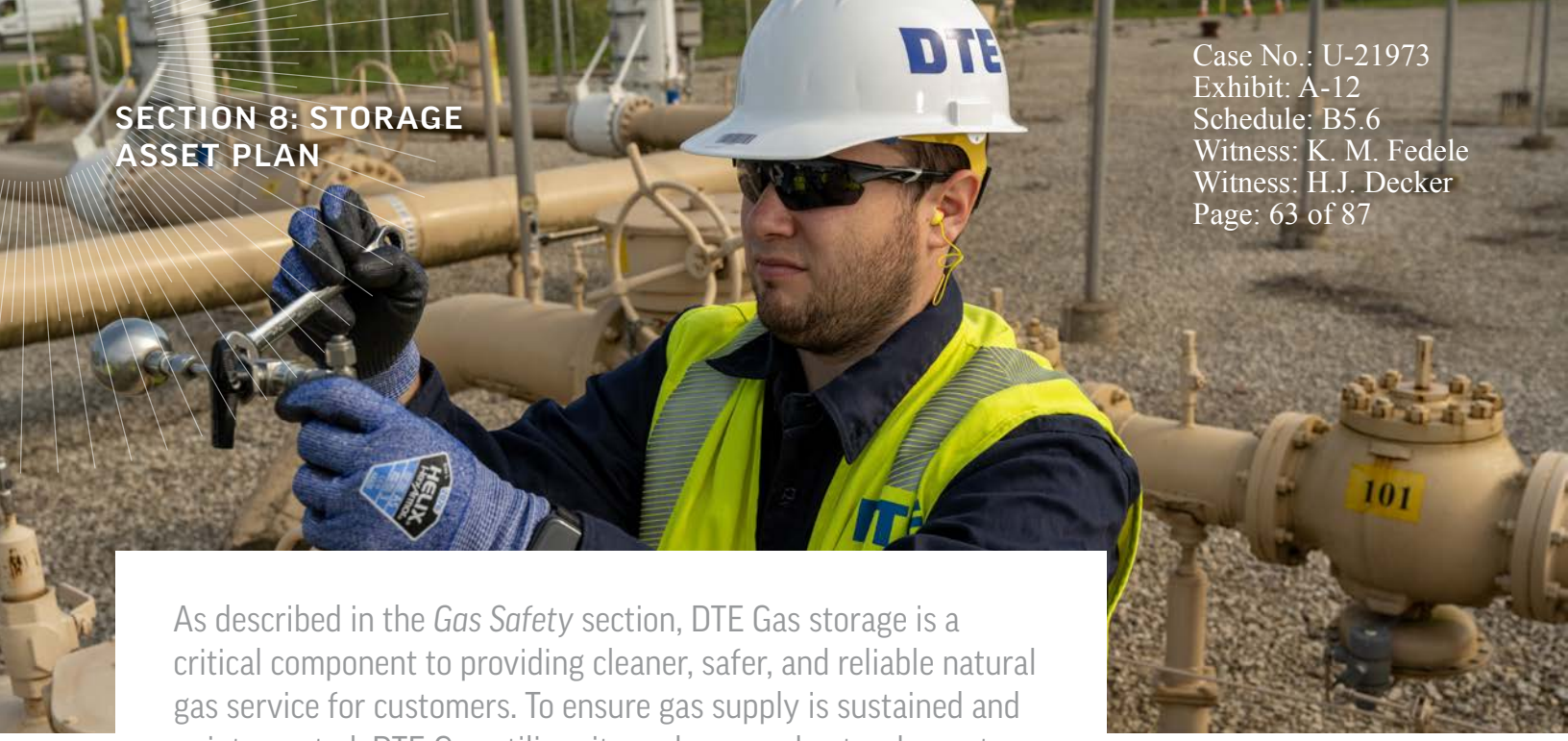


As described in the *Gas Safety* section, DTE Gas storage is a critical component to providing cleaner, safer, and reliable natural gas service for customers. To ensure gas supply is sustained and uninterrupted, DTE Gas utilizes its underground natural gas storage integrity management plan to identify and mitigate risks to its storage assets.

One of the top industry risks associated with natural gas storage is storage well unintended gas release. The likelihood of an unintended release of gas is very low but, due to the potentially severe consequences of such an event, the Company is working to mitigate the potential risk. The primary drivers of this potential risk are well entry loss of control, wellhead shear, and mechanical failure of the well casing. The three key countermeasures to such risk drivers are: (1) Well entry preventative maintenance activities, (2) the Well Pad Expansion Program (WPEP), and (3) the Well Renewal Program (WRP). DTE Gas is allocating approximately $34M over the next 10 years to implement these countermeasures and reduce the risk of a storage well unintended gas release.

Storage Assets Overview and Location

DTE Gas owns four underground natural gas storage facilities with 158 active storage wells located in its Lower Peninsula service territory. These four storage facilities hold a total of 139 Bcf of natural gas capacity (working gas) to support DTE Gas system reliability throughout the year. As illustrated in Figure 54, DTE Gas has:

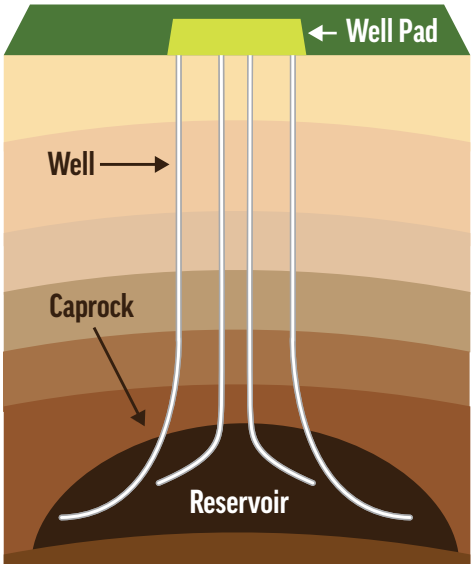
- One storage facility – Six Lakes – located in central Michigan.
- Belle River Mills, Columbus, and West Columbus – located in southeast Michigan, where DTE Gas' largest market is located.

SAFE

DEPENDABLE

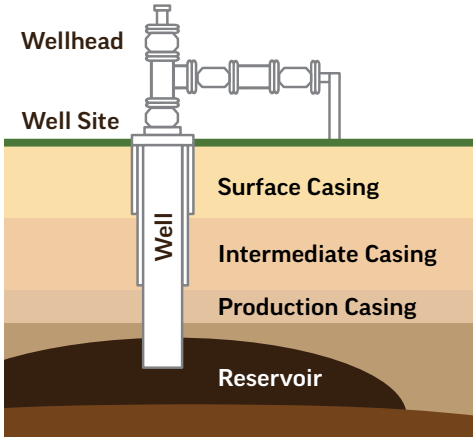
Michigan's geology is considered some of the most advantageous in the U.S. for underground natural gas storage operations due to the petrophysical properties of the reservoir rock. DTE Gas storage facilities are depleted natural gas reservoirs that were repurposed to natural gas storage in the 1950s, 1960s, and 1970s. They are ideally suited for gas storage due to their size, high deliverability, and tight sealing characteristics of the overlying caprock that held the native gas for millions of years (See Figure 55). Below is an illustration depicting natural gas storage wells connecting with the deep subsurface natural gas storage reservoir underground.

Natural Gas Storage Well and Reservoir – Figure 55

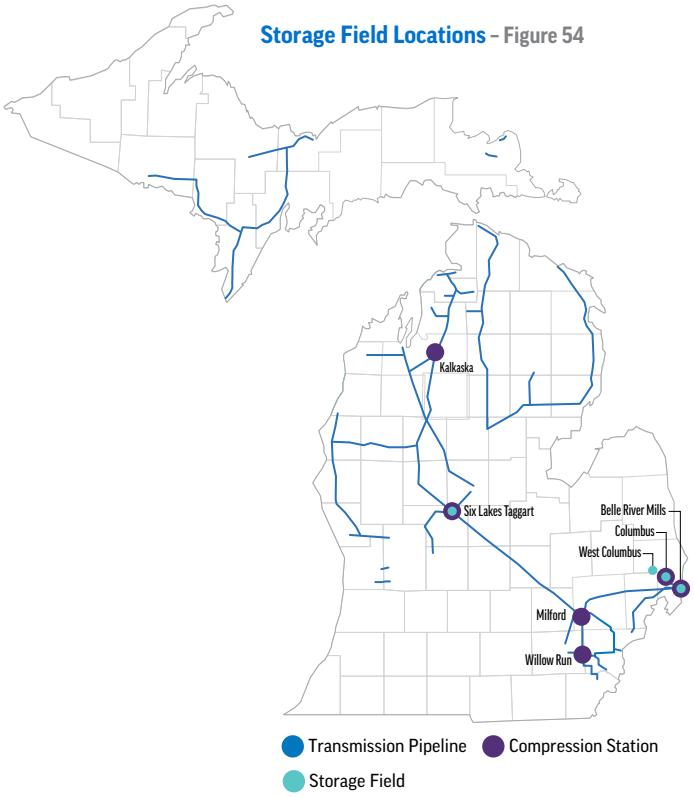


The wells at DTE Gas' storage facilities are constructed with concentric cemented casings. The innermost casing, the production casing, connects the surface transmission piping to the reservoir rock where natural gas is stored in summer months and withdrawn in winter months (See Figure 56).

Natural Gas Storage Well and Reservoir – Figure 56



Storage Field Locations – Figure 54



The Role of Storage in Customer Reliability and Affordability

DTE Gas storage facilities play a critical role in ensuring reliable and affordable natural gas supply to customers. DTE purchases most of its natural gas supply from production basins outside of Michigan. The purchased gas is stored (injected into the reservoirs) in the summer and withdrawn from storage as needed during the winter. As mentioned in the *Demand and Supply* section, storage is the mechanism that allows DTE Gas to quickly adjust to changes in daily requirements and provides the flexibility to instantaneously ramp up or down the amount of natural gas that is being distributed to meet customer needs. This storage plan is key to ensuring customer affordability and minimizing price volatility.

The close proximity of the Company's storage facilities to customer demand locations is ideal to reduce the risk of supply interruption during times of peak winter demand, and their design and operability characteristics, as illustrated in Table 11, help ensure reliable supply under a 10-year worst case weather scenario.

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DTE Gas' Storage Facility Characteristics – Table 11

Storage Facilities	Maximum Delivery Rate (MMcf/d)	Working Gas (Bcf)	Winter Usage
Belle River	1,483	60.0	Intermediate
Columbus	501	16.3	Base Load
Six Lakes	658	40.0	Base Load
West Columbus	1,110	22.5	Peaker
Total Storage	**3,752**	**138.8**	

Baseload storage facilities withdraw natural gas consistently throughout the winter season to meet the minimum daily level of demand. Peaker storage facilities typically operate during colder weather periods when base load facilities cannot provide a sufficient delivery rate to meet demand. The intermediate Belle River storage facility can be operated interchangeably as it has enough working capacity to provide base load volumes and has high enough deliverability to serve as a peaking facility.

DTE Gas Routine Storage Program

DTE Gas employs a robust, routine storage program that has contributed to its long-standing safety and reliability record in storage operations. Key subprograms included in DTE Gas' routine storage program are:

- **Corrosion Logging** – Annual program to evaluate wells for metal loss that could potentially lead to integrity issues
- **Well Stimulations** – Annual program to improve well performance to maintain storage field deliverability requirements
- **Well Plugging** – Annual program to lower maintenance expenses and improve reservoir integrity by re-plugging and eliminating older wells
- **Wellhead Upgrades** – Annual program to replace old wellhead equipment and upgrade wells with annulus pressure measurement and electronic flow measurement to monitor for abnormal pressure and flow conditions
- **Geological Characterization** – Annual program to ensure adequate buffer zone size, completeness of mineral rights ownership, observation/edge well pressure management, and integrity of third-party well penetrations to ensure containment of the gas within the storage boundaries

DTE Gas plans to continue these routine O&M and capital programs into the future.

Storage Risk Factors

While DTE Gas is proud of its robust routine storage program, the nation's largest natural gas unintended well leak incident (SoCal Gas' Aliso Canyon facility in 2015) heightened the awareness and necessity for underground storage safety regulations. In December 2016, PHMSA published 49 CFR Part 192.12 Interim Final Rule (IFR) which adopted the American Petroleum Institute (API) industry standard API RP 1171 and required the development and implementation of an integrity management program. PHMSA published the final rule in the federal register in February 2020. Specifically, API RP 1171 emphasizes the need for integrity management risk-based decision making in reservoir and well design, construction, operations, monitoring, and maintenance.

DTE Gas plans to ensure the health of gas storage reservoirs and wells through its Underground Natural Gas Storage Integrity Management Program (UNGSIMP). Through risk modeling, the Company has identified an unintended well gas release as one of the top industry risks to its system driven by three factors: (1) Well entry loss of control, (2) Wellhead shear, and (3) Mechanical failure of the well casing.

Well entry loss of control

The risk of an unintended gas release from a well is highest when work requires entry to the well. Loss of well control can occur during well entry operations, such as drilling, stimulations, corrosion logging, and plugging. While DTE Gas is proud of its long-standing safety record during its 70-year storage operating history, one well entry loss of control event occurred in 1974 during a re-plugging operation. No injuries or fatalities resulted, but the incident is a reminder of the potential safety hazards during storage operations and, more specifically, reinforces the potential risk associated with working directly on an active well.

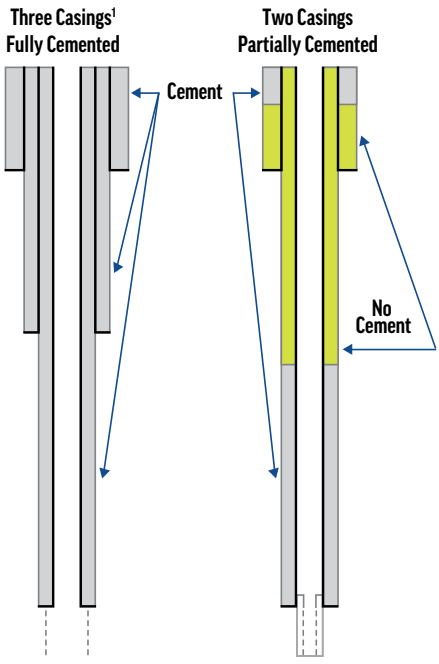
Wellhead shear

Loss of well control can occur as a result of a third party striking and shearing the wellhead below the master gate valve, causing an unintended release of natural gas. DTE Gas has never experienced a recorded wellhead shear event, but the Company continues to focus on reducing this risk where the wellheads are in close proximity to active farming areas.

Mechanical failure of the well casing

Loss of well control can occur as a result of mechanical degradation due to corrosion or fatigue. No mechanical failures have been recorded in the Company's history, likely due to DTE Gas' early adoption of corrosion logging technology and modern integrity monitoring practices, such as annulus pressure testing and real-time electronic pressure and flow monitoring. However, the direct cause of the Aliso Canyon well leak incident mentioned previously was corrosion of the surface and production casings that were not cemented to the surface (also referred to as low cement top wells). Low cement top wells lack a secondary containment barrier, and therefore, have a higher inherent risk for corrosion than wells with casings cemented to the surface. Low cement top well construction is an older design methodology that is no longer used by DTE Gas. Today, the Company's well casings are all designed to be cemented to the surface (per API RP 1171). In addition, current Michigan regulations require Niagaran wells, such as Belle River, Columbus, and West Columbus wells, to be designed with three casings providing an added layer of protection (See Figure 57). Since DTE Gas' storage fields pre-date current well design standards, the Company has 31 wells that are similar to Aliso Canyon and are a primary focus of the Company's risk mitigation efforts.

Example Well Designs – Figure 57



[1] Current Michigan regulation requires Niagaran wells (Belle River, Columbus, and West Columbus) to be designed with three casings and Mississippian wells (Six Lakes) to be designed with two casings.

Storage Risk Countermeasures

Well Entry Loss of Control Preventative Maintenance

The primary countermeasure to minimize the risk of well entry loss of control is preventative in nature, and focuses on limiting well entry work, ensuring on-site supervision, adherence to procedures, and training and preparation in emergency response. Preventative maintenance measures to reduce this risk include employee training, hiring additional staff, and emergency response training.

Well Pad Expansion Program (WPEP)

In 2018, DTE Gas developed and implemented a WPEP as a prevention measure to reduce the risk of an unintended well gas release due to wellhead shear, which targets the highest risk storage wells located in farmlands, near highways, and near industrial operations. The program's main objective is to protect well sites that have a history of trespass by expanding the dedicated wellhead buffer clearance to 50-75' and if needed, adding fencing and protective barriers as illustrated in Figure 58, and reducing the count of vulnerable wells through plugging and abandonment.

Well Site Protective Barriers – Figure 58

As a result of this program, a total of 134 wells have been identified for remediation. The Company is in its seventh year of implementation and has a target to remediate all identified wells by 2025. The program is planned to be completed in two phases. Phase I aims to expand the well pads, and Phase II plans to include the installation of protective barriers (See Figure 59 for the program plan for both phases). DTE Gas has included in its plan approximately $11M in its 10-year capital plan to protect its wells from the risk of wellhead shear.

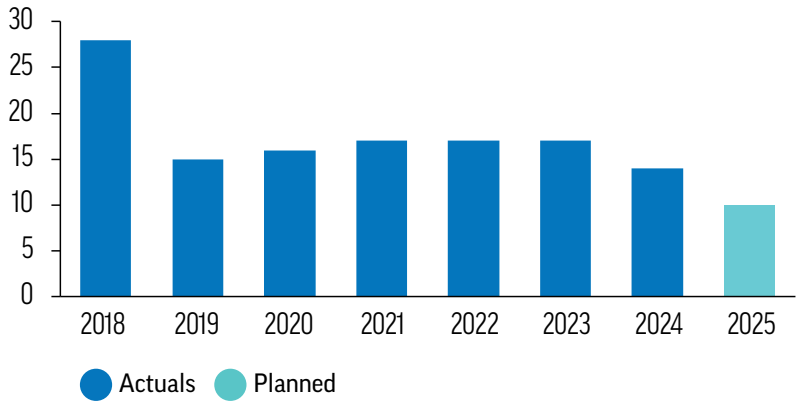
Well Renewal Program (WRP)

To address the risk of well unintended gas release due to mechanical failure, DTE Gas is developing a Well Renewal Program (WRP), that is preventive in nature. The program utilizes a risk-based approach to prioritize remediation of wells based on metal loss of the production casing and lack of secondary barriers, making low cement top wells a primary focus.

DTE Gas has 31 low cement top wells which have been prioritized for remediation as part of the WRP. Those wells planned to be remediated in the 10-year plan are listed in Table 12. Remediation of identified well include one of three methods: (1) Plug and abandonment, (2) Plug and abandonment and replacement, or (3) Renewal. Until these wells have been remediated, as an added measure of protection, each well has been equipped with real time annulus pressure measurement to monitor for leakage between the casings. In addition, the frequency of corrosion logging (evaluation of metal loss) has been accelerated to two to five years for all low cement top wells.

DTE Gas has included approximately $22M of capital for the implementation of the WRP in its 10-year plan.

Well Pad Expansion Program Plan (Wells/Year) – Figure 59



Storage Capital Financial Summary

DTE Gas storage capital investments are planned to remain stable through 2026. By 2027, the implementation of the Well Renewal Program is planned to begin adding approximately $2-4M per year. By the end of the 10-year period, the Company is planning to invest approximately 46% of its storage capital investments on key risk countermeasures to mitigate storage well risks (See Figure 60). The remaining storage capital expenditures will be dedicated to other well integrity programs that also play a key role in the DTE Gas storage risk mitigation plan.

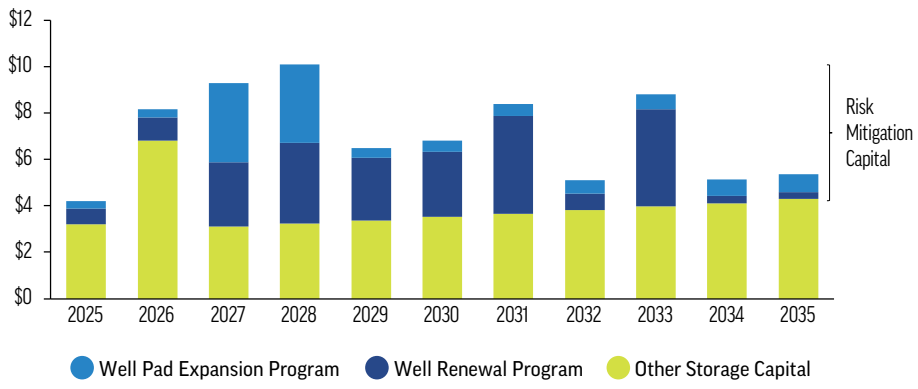
By 2035, DTE Gas expects to have completed all the well pad expansions and addressed 21 of its 31 low cement top wells through its Well Renewal Program. The remaining 10 low cement top wells are planned to be remediated by 2042. The Company also plans to continue its preventative maintenance measures reducing the risk of well entry loss of control.

Low Cement Wells Remediated in 10-Year Plan – Table 12

Low Cement Top Wells	Storage Field	Remediation Action	Anticipated Remediation Year
Nelson & Nielson 1	Six Lakes	Lined in 2024	2024
SL 29	Six Lakes	Plug	2025
SI 6	Six Lakes	Renew*	2025
Dupont 1	Columbus	Plug	2025
Shorat-Schunck 1	Belle River	Renew*	2025
Buczkowski 1	Belle River	Plug	2025
Scott Community 1	Belle River	Plug	2025
Fairbanks Est 1	Six Lakes	Renew*	2026
SL 420	Six Lakes	Renew*	2026
SI 91 (Houghton)	Six Lakes	Plug	2026
SL 290	Six Lakes	Renew*	2026
Caughell-Campbell 1	Columbus	Plug	2026
Ackerman-Novak 1	Columbus	Plug and replace	2028
Parinello-Harvey 2	Columbus	Plug and replace	2028
E. Schunck 1	Belle River	Plug and replace	2029
Rood Estate 1	Belle River	Plug and replace	2030
BR 3	Belle River	Plug and replace	2031
R Beier 1	Belle River	Plug	2032
BR 9	Belle River	Plug and replace	2033
U Doauglass-Sun 1	Belle River	Plug	2035
BR 2	Belle River	Plug and replace	2025/2035
Jann3	Belle River	Plug	2036
Jensen 1	Six Lakes	Renew*	2036
BR 7	Belle River	Plug and replace	2036

*Renew options include: Lining, backing off, or perforating to eliminate the low cement top in the well.

Storage 10-Year Capital Plan ($M) – Figure 60



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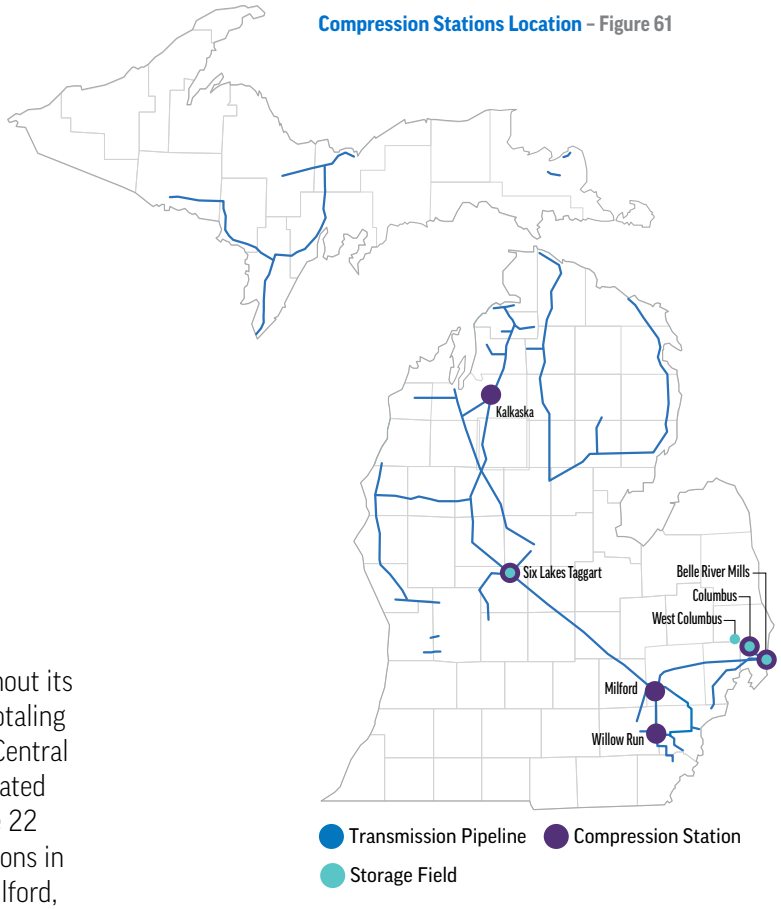
DTE Gas' compression assets play a key role in ensuring reliable natural gas deliverability to its customers. DTE Gas has strong preventative maintenance programs in place to enable high equipment reliability at reduced overall lifecycle cost; however, over half of its compressor units were installed more than 61 years ago, and it is becoming increasingly difficult to secure replacement parts in a timely manner due to obsolescence. As a result, the Company has developed a Compression Replacement Program (CRP) to replace its older assets and ensure reliable compression horsepower for decades to come.

Compression Assets Overview and Location

DTE Gas has six compressor stations located throughout its service territory consisting of 46 compressor units totaling approximately 177,000 horsepower (HP). The North Central region has 24 units (or approximately 48,100 HP) located at two stations (Kalkaska and Taggart stations) while 22 units (or approximately 129,000 HP) are at four stations in the Southeast region (Belle River Mills, Columbus, Milford, and Willow stations) (See Figure 61). HP distribution is driven by system load based on customer population, location, capacity of storage fields, and natural gas transportation requirements.

Compression Stations Location – Figure 61



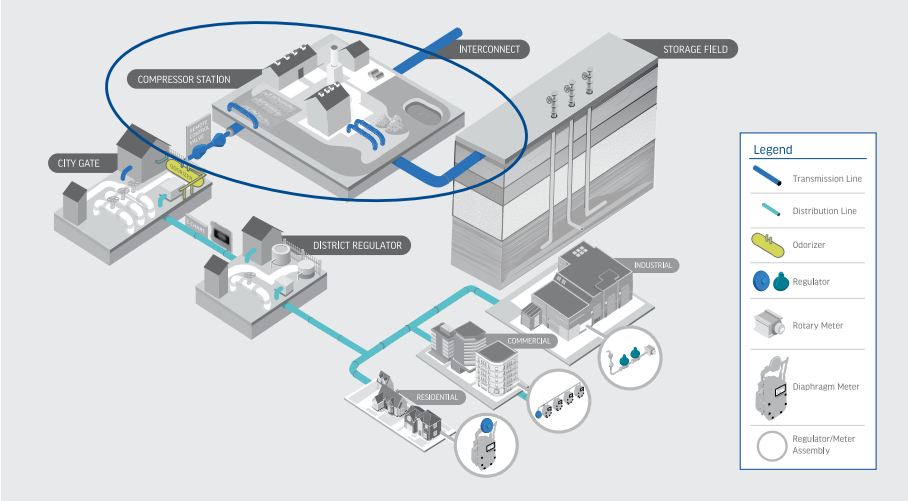
Compression Asset Management

Utilization of compression assets

Compressor stations play a vital role when injecting natural gas into or withdrawing natural gas from storage fields (Figure 62). Specifically, compression is used when the gas in the pipeline connected to the storage field reaches the same pressure as the storage field. Compressor stations are also used at strategic locations along a pipeline to increase the natural gas pressure for transport to meet system and/or contractual requirements of flow and pressure. DTE Gas Control communicates pipeline flow requirements to the station operators who determine if compression is needed and, if so, which units will be started to satisfy the flow requirements. Compression utilization varies significantly based on the season.

DTE Gas compressor utilization reflects seasonal injection and withdrawal operations, consistent with system flow requirements in the summer and winter. The highest levels of compression utilization happen during the summer when the Company injects natural gas into storage, followed by the winter when gas is withdrawn from storage. Based on the 2024/2025 capacity release study (a biannual report forecasting monthly operational activity required for both peak and minimum markets), the maximum utilization forecast for the entire fleet is approximately 65% for injection and 55% for withdrawal, averaging 60% for the year. However, the maximum utilization forecast by individual stations is as high as 98% in the summer and 88% in the winter (See Figures 63 and 64). By comparison, the actual average fleet utilization over the last five years (2020-2024) was approximately 29% (See Figure 65).

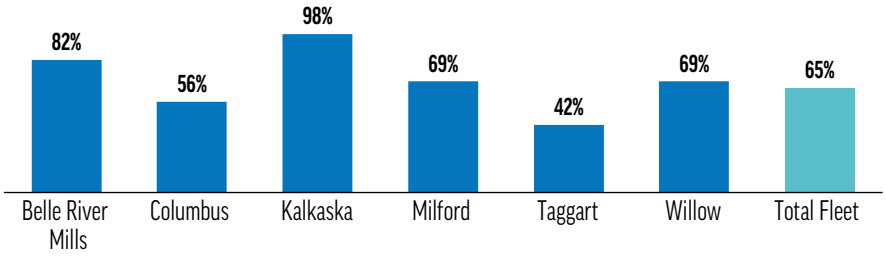
Natural Gas System - Illustrative – Figure 62



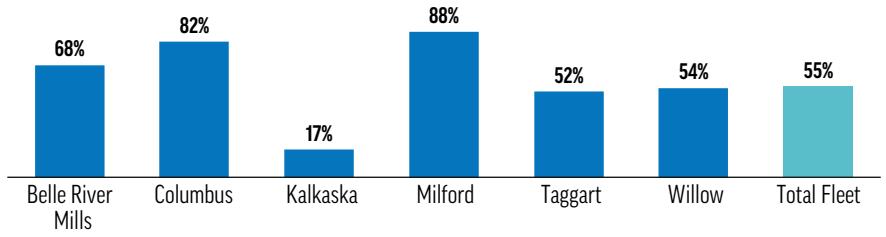
From 2020 to 2022, the Taggart Compressor Station demonstrated stable performance, maintaining an average utilization of approximately 22%. In 2023, utilization jumped to 37%, followed by a slightly lower but still robust 34% in 2024. Over this two-year period, utilization averaged around 35%, representing a notable 59% increase compared to 2022. Across the five-year period, Taggart's utilization averaged 27%, underscoring its role as a vital station in the system. This increase in compression utilization at Taggart is primarily due to changes in interconnect delivery points, requiring transportation of large natural gas volumes over a longer distance, resulting in lower delivery pressures at Taggart, which requires higher compression HP to boost pressure for injection or delivery to customers. The increased compression is also helping maintain supply to the northern system to compensate for declining Michigan natural gas production.

A similar trend is shown for Milford, due to the transportation of NEXUS gas to the rest of the system. Beginning at 36% utilization in 2020, Milford consistently showcased strong performance, peaking at 50% utilization in both 2023 and 2024. Its five-year average utilization stood at 44%, emphasizing Milford's critical role in supporting the system's overall operations.

Summer Injection (April 2024-October 2024) Maximum Utilization Forecast by Compressor Station – Figure 63



Winter Withdrawal (November 2024-March 2025) Maximum Utilization Forecast by Compressor Station– Figure 64

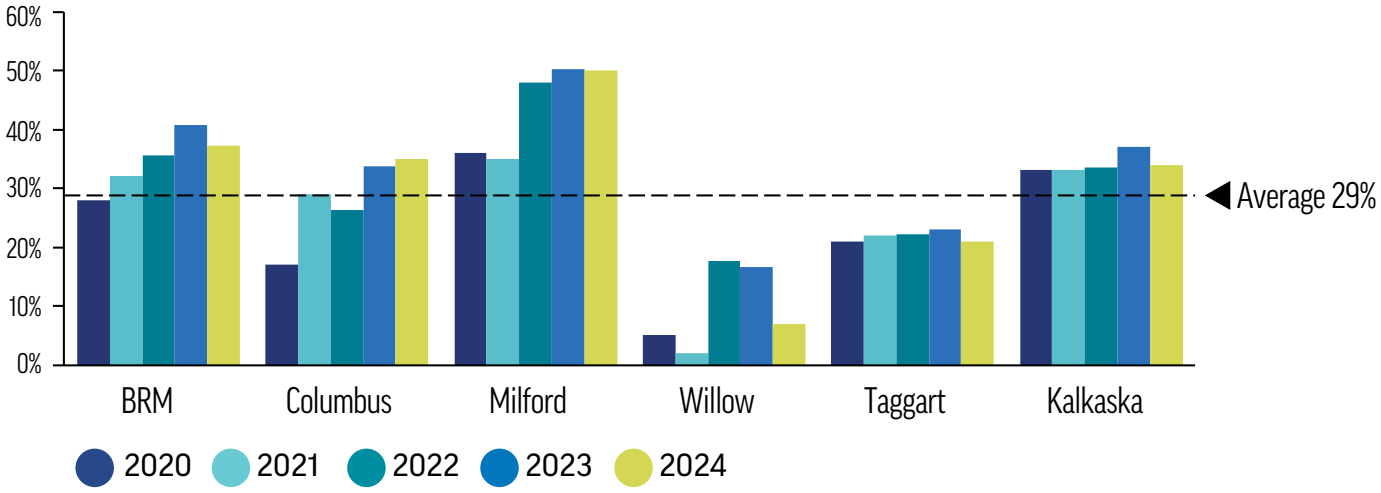


Peak utilization is what drives requirements at each station needed to meet customer demand including redundancy to maintain supply in the event of unit outages. The actual average annual utilization is based on the sum of rated power output by the units and since compressor units rarely run at max HP, the percentages in terms of number of units running are higher. For example, during the polar vortex of January 2019, all 40,000 HP (21 units) at Taggart Station were utilized.

Asset Management Foundational Capabilities (AMFC)

DTE Gas believes preventative maintenance is a critical component of risk management and customer affordability. By extending the life of its assets, major capital investments can be minimized, in turn reducing customer costs. AMFC is a set of five capabilities, which provide a structured approach to achieve best-in-class maintenance strategies for DTE Gas. AMFC focuses on preventative, predictive, and corrective maintenance by analyzing the system to determine the most critical assets, and by developing an effective work management process to realize high equipment reliability at reduced overall lifecycle cost.

Actual Average Annual Utilization by Compressor Station – Figure 65



AMFC capabilities

1. Provide Supportive Management and Work Culture
2. Establish Asset Management Strategies
3. Conduct Maintenance Activities
4. Monitor Asset Condition and Performance
5. Perform Corrective Actions

Effective leadership and work culture

DTE Gas has a strong AMFC governance board that meets regularly to review program performance and ensure adherence to targets. Training has been provided to more than 121 employees in the Company on the fundamentals of AMFC, and we continue to assess training needs for applicable employees to enhance knowledge of AMFC and its criticality in maintaining a high reliability for our aging assets. An external entity is also utilized to conduct periodic assessments to determine program maturity and identify opportunities to enhance the effectiveness of the program.

Asset risk management

DTE Gas has performed a risk assessment at all transmission and storage compressor stations. The results of this assessment have been used to enhance and prioritize preventative maintenance and execute capital upgrades on critical assets to improve asset reliability.

Optimizing maintenance

In the past, the Company used a manual maintenance and work management process to direct maintenance and routine work. This practice was subject to loss or degradation of paper documentation and the inability to correctly trend performance. Recognizing that a robust maintenance plan along with an electronic work management system is essential for a more efficient operation and management of company assets, DTE Gas deployed technology and enhanced processes in 2017. These enhancements focused on work management and furtherance of maintenance cost transparency. This tool houses all of the preventative maintenance and code-required work and self-generates work orders at a specific timeframe required for the task.

This tool also enables employees to surface corrective maintenance issues, which are escalated to supervisors who then assign the proper resource for corrective work. DTE Gas is also developing solutions to modernize the record-keeping process and enhance the integrity of maintenance records.

Preventative maintenance tasks have been developed at normal weekly, monthly, quarterly and annual intervals and are completed by DTE Gas personnel. These tasks are based on the engine/compressor unit Original Equipment Manufacturer (OEM) recommendations, yet still accommodate for deviations in maintenance required among the different units in the DTE Gas fleet. Major overhauls are also planned based on OEM recommendations while taking into account overall engine performance and run time. The AMFC program uses continual assessment to improve the program maturity and enhance the effectiveness of the preventative maintenance of the Company's critical assets.

DEPENDABLE

EFFICIENT

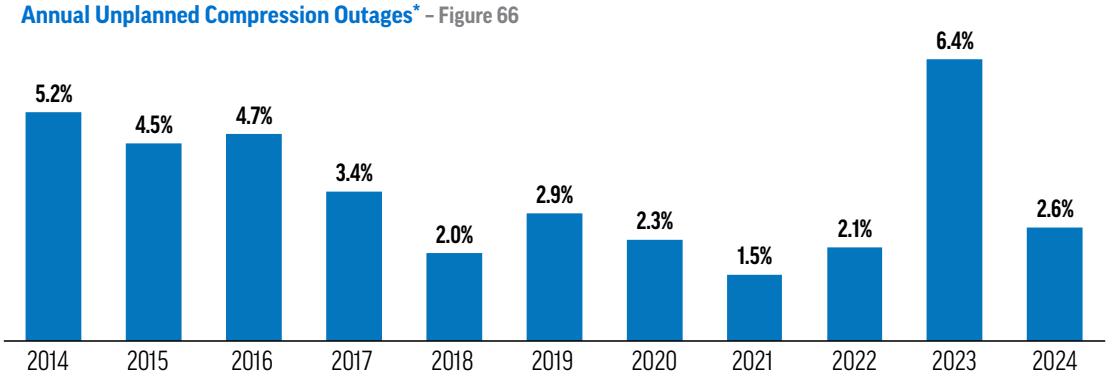
To augment preventative maintenance, DTE Gas is implementing predictive analytics to trend key asset parameters and identify abnormal trending, in turn driving proactive corrective measures. These analytics are designed to go above and beyond original equipment manufacturer specifications for monitoring equipment to help minimize asset failure and ensure reliable and efficient operation.

DTE Gas is also utilizing Management Of Risk Tree (MORT), a widely recognized Root Cause Analysis (RCA) template. The Company has successfully utilized MORT to assist investigation of recent pipeline and compression incidents. The deployment of the AMFC program described above to manage the maintenance of the compression fleet has continued to yield positive results, ensuring reliable service and reducing unplanned compressor outages over the past decade. Since 2014, the program has contributed to a steady decline in annual unplanned compression outages from 5.2% in 2014 to 2.6% in 2024 (see Figure 66), marking an overall reduction of 50.6% in random outages and significantly improving the Company's compressor station reliability.

While steady improvements were observed year over year, a notable failure occurred in 2022, when Taggart experienced significant crankshaft damage on a unit, contributing to a rise in outages to 2.1% that year, and impacting availability in subsequent years. The affected unit remains out of service, directly contributing to the spike in unplanned outages in 2023, which surged to 6.4%, and the continued elevated rate of 2.6% in 2024. This prolonged downtime highlights the urgency of advancing the compressor replacement program to restore reliability and mitigate further availability impacts.

Despite the benefits of DTE Gas' asset maintenance program, many of the Company's compressor units are more than 61 years old. To mitigate reliability risk driven mostly by obsolescence of parts and to sustain reliable service for the foreseeable future, DTE Gas has developed a Compression Replacement Program (CRP) to replace select compression assets over the next 10-12 years.

Annual Unplanned Compression Outages* – Figure 66



*2019-Abnormal year because the failure of compression equipment was driven by upstream separation equipment at W10 station. The spike in 2023 was due to the delay in securing funding to repair a failed turbine unit.

Compression Replacement Program (CRP)

As depicted in Table 13, 52% of DTE Gas' compressor units were placed into service more than 61 years ago. While these older units represent over half of the fleet by count, they contribute to 25% of the fleet's total horsepower capacity, as illustrated in the graph. The average age of the DTE Gas compression fleet is 48 years with compressor age as old as 70 years. The oldest units are the 11 units at Taggart Plant 1 (70 years old) and the 10 units at Taggart Plant 2 (66 years old) (see Table 12). As these units continue to age, the availability of replacement parts has become increasingly limited. Many components, including some electronic devices that are critical to automatic operation of the units, are now obsolete or difficult to source, which significantly increases the risk of prolonged outages when failures occur.

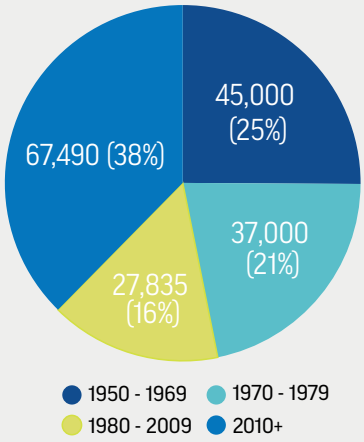
The ongoing obsolescence of key components has created significant operational and financial challenges, particularly related to KVS units located at the Taggart Station, Z330 and GMVC units located at the Belle River Station, and Delaval units located at the Columbus and Milford stations. Casting of many mechanical components such as heads, master rods, and other major internal engine components by OEM has discontinued, resulting in a reliance on refurbished, scavenged, or rebuilt parts sourced from decommissioned or abandoned units.

These conditions directly impact the long-term reliability and cost-efficiency of our gas delivery infrastructure in many ways including:

- Component obsolescence has reduced maintenance predictability and heightened the risk of gas storage interconnects, and pipeline delivery interruptions.
- Sourcing refurbished parts from abandoned units has created operational inconsistencies and limited flexibility during outage restoration or planned upgrades.
- Cost implications driven by increased labor and procurement, heightened quality assurance needs, and outage risk due to part unavailability, which could result in supply and or delivery curtailments during peak operations.
- System sustainability is threatened by dependence on legacy infrastructure, requiring long-term planning for equipment modernization.

To mitigate these risks, a compressor replacement program will focus on aging and obsolete infrastructure. This program will serve as a critical step toward restoring long-term reliability, mitigating unplanned outages, and reducing dependency on salvaged parts. Simultaneously, strategic investments will continue to sustain current delivery commitments while laying the groundwork for a transition to modern, OEM-supported systems. These efforts are embedded in our capital planning approach, which prioritizes infrastructure resilience, lifecycle cost reduction, and uninterrupted service to customers.

Compression HP by Age – Figure 67



This aging compressor fleet is a clear example of the broader obsolescence challenges we are facing across our infrastructure. In addition to mechanical systems, our control and electronic systems are also nearing or have reached end-of-life, with OEM support rapidly diminishing. These conditions pose substantial risks to system integrity, maintenance feasibility, and long-term service continuity. Examples of components at or near end of life include:

- **Hyperbalance/autobalance panels:** 100% of these panels are currently classified as obsolete. OEM support has ceased, and replacement parts are no longer being manufactured. Continued operation relies solely on scavenged or refurbished components, which are increasingly difficult to source.
- **Turbine control panels:** 86% of our turbine control panels will reach obsolescence by 2027, with OEMs indicating only limited to remaining inventory. This includes reduced availability of firmware updates, diagnostics, and critical replacement parts.
- **Reciprocating altronic ignition systems:** 89% of these ignition systems are already obsolete. OEM support is limited to the remaining inventory, which is expected to be exhausted in the near term. Once depleted, no further parts or technical assistance will be available.

This widespread obsolescence presents a growing operational risk and underscores the urgent need for strategic investment in modernization through the CRP. Without proactive upgrades, we face increased downtime, higher maintenance costs, and potential safety concerns, all of which threaten our ability to maintain reliable service and meet regulatory requirements.

To address these challenges, the CRP aims to replace older assets and ensure DTE Gas continues to have reliable horsepower capacity to meet current and future customer demands. Reliable compressor units are critical to ensuring deliverability to customers and allow for full utilization of storage facilities. Reliable compressor units also ensure consistent, stable operation of the transmission system.

The challenges at Taggart are indicative of a broader issue affecting multiple locations across DTE Gas' fleet. Due to the advanced age of many compressor units, outages are becoming increasingly prolonged—not because of mechanical failures, but due to the difficulty in sourcing obsolete or hard-to-find parts.

At Belle River Station, for instance, there are delays with obtaining the necessary components for the Company's Z330 units, which are 53 years old. These parts are no longer readily available, and the sourcing process has extended a recent outage by 22 weeks. This delay has directly impacted the Company's ability to inject gas into the Belle River Storage Field, limiting operational flexibility and reducing system efficiency. If such an outage were to occur during peak winter months, the consequences could be far more severe. Limited access to storage and reduced compression capacity during high-demand periods would significantly hinder the Company's ability to meet customer nominations, potentially compromising system reliability and service continuity. The situation at Belle River further illustrates the urgency of the CRP and the need to modernize aging assets to maintain system reliability and meet customer demand.

The CRP targets DTE Gas' aging compression assets and prioritizes replacement based on a combination of age, utilization, spare parts availability, and reliability to ensure an appropriate priority is established. In addition, the program is planned to optimize asset replacement to increase utilization without sacrificing redundancy. New compression assets help ensure the Company's operations are reliable while also lessening the impact on the environment as new units have modern emission controls and limits to ensure sustained environmental performance. With the goal of reducing carbon emissions, the Company evaluates the option of electric compression where economically and operationally feasible.

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Taggart Compressor Replacement Project

DTE Gas is initiating CRP with the replacement of compression assets and auxiliary equipment at the Taggart Compressor Station through the construction of a new facility. The existing station, originally constructed in the 1950s, has reached the end of its useful life and presents significant reliability, safety, and cost concerns. In addition to the obsolescence of the primary compressor units, the station's supporting infrastructure–including dehydration contactors, cooling water systems, foundations, yard piping, auxiliary equipment and control buildings–is nearly 70 years old and at the end of its useful life. Without full replacement or substantial rehabilitation many of these assets will face rising annual maintenance costs and an increased risk of operational failure.

The current station's cooling system relies on local Michigan waterways, which are known to contain significant zebra mussel infestations. This invasive species obstructs water intake systems and degrade heat exchanger performance, requiring annual mechanical cleaning and contributing to premature degradation of heat exchangers and associated piping. These conditions result in increased maintenance costs, reduced thermal efficiency, and heightened risk of unplanned outages.

The dehydration system also suffers from outdated design and compromised performance. The existing horizontal desiccant beds utilize external insulation, which is less thermally efficient than modern internally insulated vertical vessels. Additionally, the system's compromised bottom screens have led to bed channeling, reducing dehydration effectiveness and necessitating frequent desiccant replacement at considerable cost.

Further compounding these issues are the incremental costs associated with water disposal, which continue to rise due to aging infrastructure and increasingly stringent environmental regulations. The cumulative effect of these reliability and compliance challenges results in a materially higher cost of operation and a diminished ability to ensure safe, reliable service to customers. Figure 68 shows the 6-year random outage numbers for Taggart Compressor Station in which the outage of one unit since 2022 has significantly increased the random outage number and effectively reduced the number of redundant units from two to one. Cost-prohibitive rehabilitation of piping foundation and restraints to arrest vibration has also resulted in limiting engine speeds at plant 1, effectively removing the second redundant unit. As of today, Taggart Compressor Station operates with zero redundancy which could affect service delivery on a winter design day. Following a comprehensive evaluation of alternatives, DTE Gas has determined that constructing a new compressor station on a newly acquired greenfield site adjacent to the existing facility is the most prudent and cost-effective solution. This approach avoids the compounding costs of piecemeal rehabilitation and ensures long-term reliability and regulatory compliance.

The new Taggart Compressor Station will incorporate:

- Optimized horsepower configurations aligned with current and projected system demands
- Modern emission control technologies to meet environmental standards
- A standalone cooling system that eliminates reliance on local waterways and mitigates biological fouling risks
- Advanced dehydration technology with improved thermal efficiency and reduced desiccant consumption

These upgrades will result in:

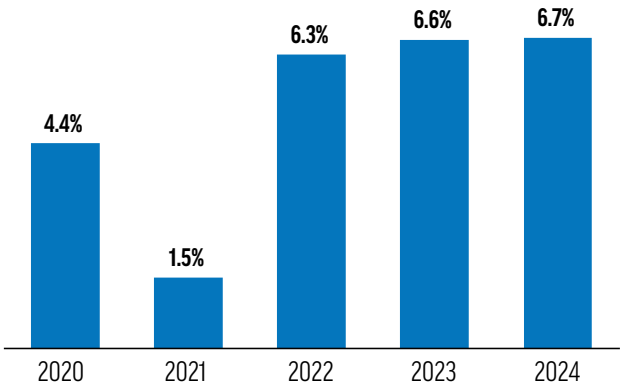
- Significant reduction in annual maintenance and replacement costs
- Improved system reliability and operational efficiency
- Enhanced environmental stewardship and regulatory compliance
- Avoidance of future capital expenditures associated with legacy asset failures
- Minimal downtime due to readily available spare parts

The new station is projected to be placed in service by late 2027 and represents a strategic investment in infrastructure modernization that will deliver long-term value to customers and stakeholders.

This project is projected to cost $390M over a five year period (2025 - 2029).

When completed, the Compression Replacement Program is targeting to have replaced 82,000 HP or approximately 46% of the total fleet HP at Taggart plants 1 and 2 (40,000 HP), Columbus Delavals (4,000 HP), BRM Z-330 (17,0000 HP), BRM GMVC (5,000 HP), and Milford plant 1 (16,000 HP). The Company plans to begin investing in the CRP in 2025, with approximately $535M allocated in the 10-year plan. DTE Gas will continue to rely on the PSMS risk matrix to further refine the prioritization of the planned replacements.

Taggart 6-Year Random Outage Rate (ROR) – Figure 68



DTE Gas Compression Fleet – Table 13

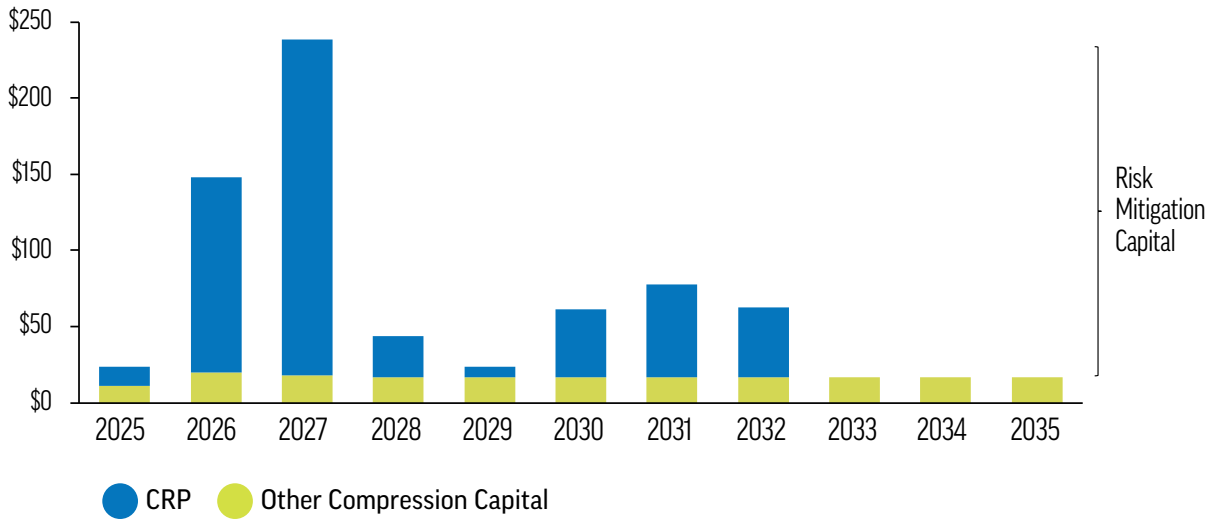
Compressor Station	Compression Equipment	# of Units	Total HP	Year Installed
Taggart	Taggart Plant 1 (Ingersoll Rand)*	11	20,000	1955
	Taggart Plant 2 (Ingersoll Rand)*	10	20,000	1959
Belle River	BRM Plant 1 (GMVCs)*	3	5,000	1964
	BRM Plant 2 (Z-330s)*	2	17,000	1972
	BRM Plant 3 Unit 6 (Mars-100) Unit 7 (Centaur-50) Unit 8 (Taurus-70)	 1 1 1	 15,000 6,130 10,915	 2007 2016 2016
Columbus	Columbus (Delavals)*	2	4,000	1972
Alpena	Retired	Retired	Retired	1975
Milford	Milford Plant 1 (Delavals)*	4	16,000	1979
	Milford Plant 2 & 3 (Taurus-70)	3	32,745	2018
Kalkaska	Kalkaska (GMVHs)	3	8,100	1992
Willow Run	Willow Run Plant 1 (CAT/Ariel) (Taurus-60)	 1 1	 4,735 7,700	 2009 2018
	Willow Run Plant 2 (Cat/Ariel)	3	10,000	2018
Reed City	Retired	Retired	Retired	1997
	TOTAL	**46**	**177,325**	

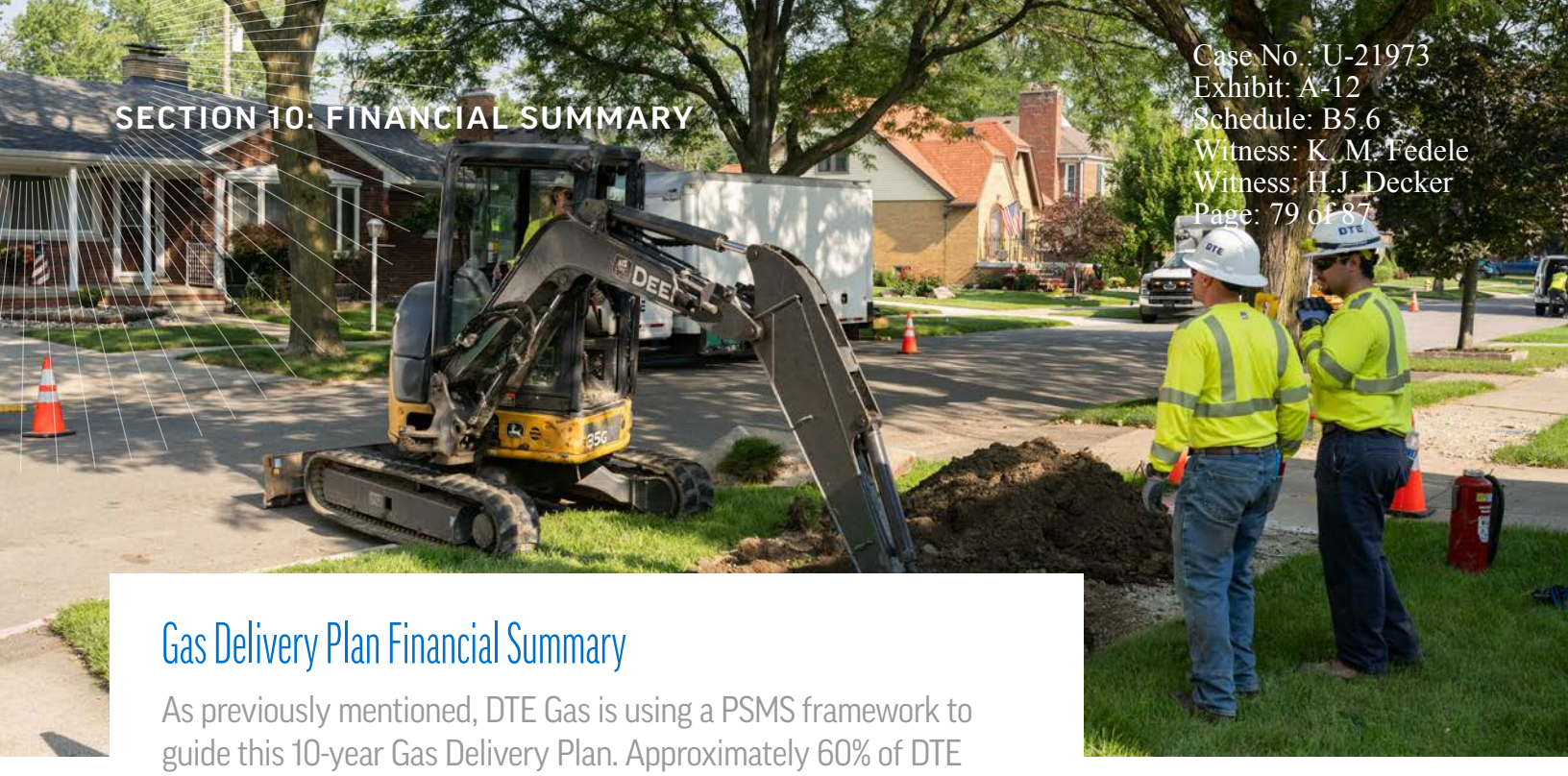
*Compressor units in the current scope of CRP

Compression Capital Financial Summary

Over the next 10 years, the DTE Gas compression system capital investments are planned to remain focused on critical routine capital programs, including equipment upgrades to extend the life of its compression assets (See Figure 69). As mentioned above, the Company is planning to begin a Compression Replacement Program in 2025.

Compression 10-Year Capital Plan ($M) – Figure 69





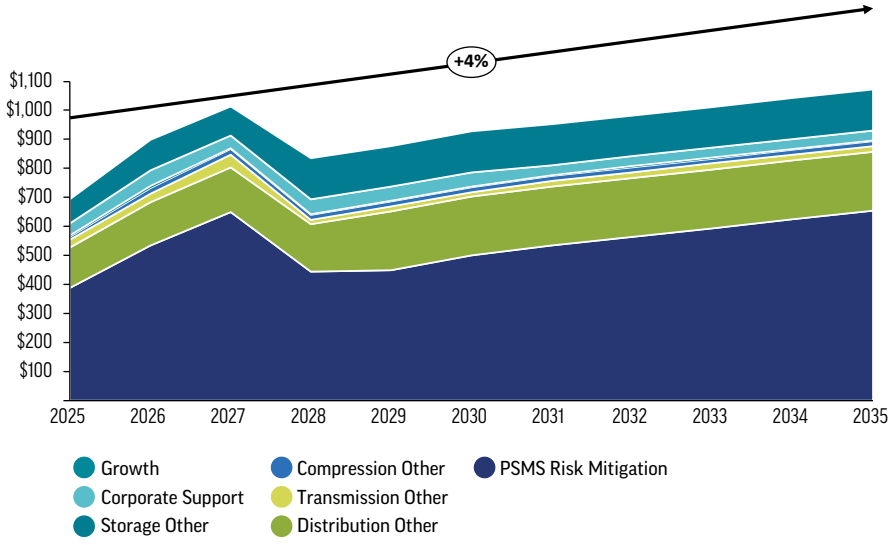
Gas Delivery Plan Financial Summary

As previously mentioned, DTE Gas is using a PSMS framework to guide this 10-year Gas Delivery Plan. Approximately 60% of DTE Gas' investments are planned to be dedicated to the aforementioned PSMS countermeasures (See Figure 70). The remaining 40% is largely comprised of routine work, system expansion, and corporate support capital; investment that is critical to the sustained operation of the natural gas system.

The Company expects its total annual capital investment to remain relatively stable over the next 10 years (4% CAGR). As projects near completion (e.g., 97% of inside meters are planned to be moved outside by 2028), the specific areas where DTE Gas invest its capital over this time period will vary based on risk prioritization (e.g., shift from distribution asset investments to transmission and compression asset investments). The plan is further enhanced with the implementation of a probabilistic risk model, which allows DTE Gas to better compare risks across asset classes. As it stands currently, DTE Gas' capital plan outlines investments totaling approximately $9.6B over the 10-year period (2026-2035).

Grounded in the Company's commitment to prioritize safe, reliable, affordable, and cleaner natural gas service, DTE Gas has developed this 10-year delivery plan. This plan communicates both the Company's near-term and long-term capital investments guided largely by countermeasures designed to mitigate the top industry risks. Going forward, DTE Gas plans to update this GDP with every rate case to reflect changing opportunities and challenges in the system, industry, and communities the Company serves.

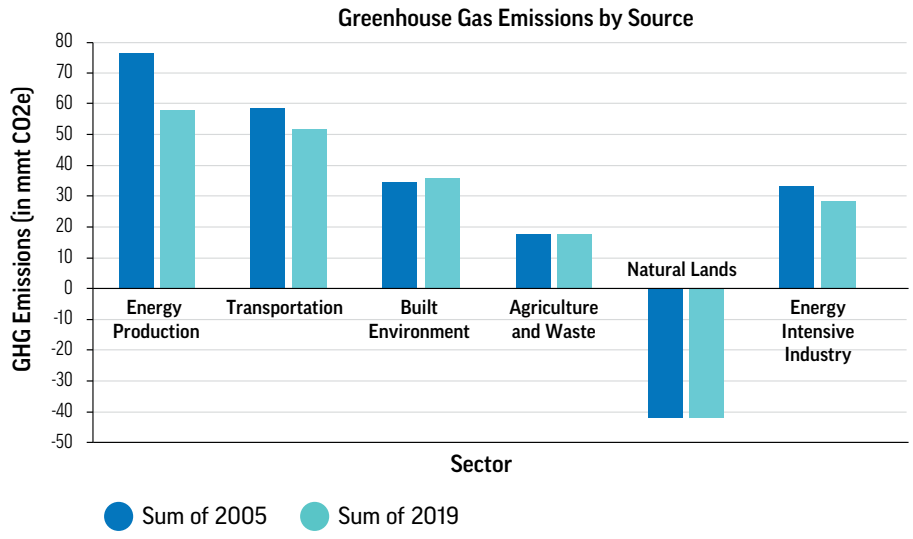
DTE Gas 10-Year Capital Plan ($M) – Figure 70



Energy Transition Overview

The state of Michigan released the MI Healthy Climate Plan in 2022, which provided a broad vision to transition the state's economy to carbon neutrality by the year 2050. In this "energy transition," the MI Healthy Climate Plan highlights opportunities to reduce GHG emissions which highlights the importance of achieving these reductions while supporting economic growth and protecting the state's most vulnerable citizens. Figure 71 is a table from the MI Healthy Climate Plan that summarizes GHG emissions across the state by sector.

Excerpt from MI Healthy Climate Plan – Figure 71

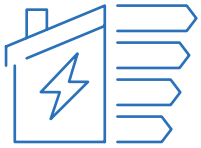


In addition to providing a summary of GHG emissions, the MI Healthy Climate Plan provides 2030 goals for each of the identified sectors (See Figure 72). These sector-based targets provide guidance to cost-effectively reduce GHG emissions statewide and deliver the plan's vision of growth and opportunities associated with this transition. Importantly, the MI Healthy Climate Plan does not provide a common goal across all sectors. Instead, it tailors the targets to the specific opportunities within each sector based on cost and the availability of alternatives to produce fewer GHG emissions.

MI Healthy Climate Plan – Figure 72

Commit to Environmental Justice and Pursue a Just Transition: Ensure that at least 40 percent of state funding for climate-related and water infrastructure initiatives benefit Michigan's disadvantaged communities (in line with the federal government's Justice40 guidelines for federal funding); that Justice40 is developed in partnership with leaders in disadvantaged communities; and that Michigan emphasizes a just transition for all workers through proactive engagement, job training, and workforce development.

Clean the Electric Grid: Generate 60 percent of the state's electricity from renewable resources and phase out remaining coal-fired power plants by 2030. Limit energy burden from powering and heating homes to not more than 6 percent of annual income for low-income households.



Electrify Vehicles and Increase Public Transit: Build the infrastructure necessary to support 2 million electric vehicles on Michigan roads by 2030. Increase access to clean transportation options - including public transit - by 15 percent each year.

Repair and Decarbonize Homes and Businesses: Reduce emissions related to heating Michigan homes and businesses by 17 percent by 2030. Increase investments in repairing and improving buildings to reduce costs for working families and small businesses.

Drive Clean Innovation in Industry: Encourage clean innovation hubs where private enterprises strategically co-locate and collaborate to develop and deploy new, cleaner manufacturing technologies and conduct research and development to reduce emissions from hard to decarbonize industries. Triple Michigan's recycling rate to 45 percent and cut food waste in half by 2030.

Protect Michigan's Land and Water: Protect 30 percent of Michigan's land and water by 2030 to naturally capture GHG emissions, maintain and improve access to recreational opportunities for all Michiganders, and protect biodiversity. Leverage innovative strategies to support climate-smart agriculture.

The MI Healthy Climate Plan acknowledges that these goals are "ambitious–and in some cases daunting" but it does not simply target zero GHG emissions across all sectors of the entire economy. Sectors with affordable GHG emission reduction options (i.e. power and transportation) have higher decarbonization targets than the other categories like the "built environment", the sector containing approximately 80% of DTE Gas' GHG emissions, which has lower targets reflecting the cost and difficulty of making larger reductions. Based on the sector breakdown, it is not expected that every sector reaches zero emissions. This is because Michigan's Natural Lands are estimated to be removing about 40 million metric tons of CO_2 annually. This reinforces the messages of the MI Healthy Climate Plan on the importance of prioritizing the most effective strategies and delivering emission reductions in a socially responsible way, with each individual sector and the companies within that sector needing to have targets that reflect how they fit into the broader economy-wide GHG emission reduction journey.

DTE Gas' Role in the Energy Transition

As a key energy provider, DTE Gas supports the MI Healthy Climate Plan and is actively assisting the state in reducing GHG emissions. In 2021, DTE Gas updated its own emission reduction targets to further support the broader statewide effort.

As mentioned in the *Vision and Objectives* section, the Company has taken significant steps forward in environmental responsibility: committing to reduce internal gas utility operation GHG emissions to net zero by 2050, partnering with suppliers (upstream) to reach net zero by 2050, and working with customers (downstream) to reduce their GHG emissions by 35% by 2040 (from 2005 levels).

A key component of the energy transition outlined in the MI Healthy Climate Plan is to ensure a just transition namely by maintaining affordability for customers while reducing GHG emissions. There are many available technologies and strategies to reduce GHG emissions today, but many of them include an impactful cost premium when compared to current operational strategies and solutions. Therefore, balancing the scale, timing, and selection of investments is critical. DTE Gas believes the most cost-effective GHG emission reduction pathway is for all companies to prioritize reduction, DTE Gas is immediately pursuing programs that lower GHG emissions today, aligning with safe and reliable operations of the Company's natural gas system.

DTE Gas Decarbonization Activities Today

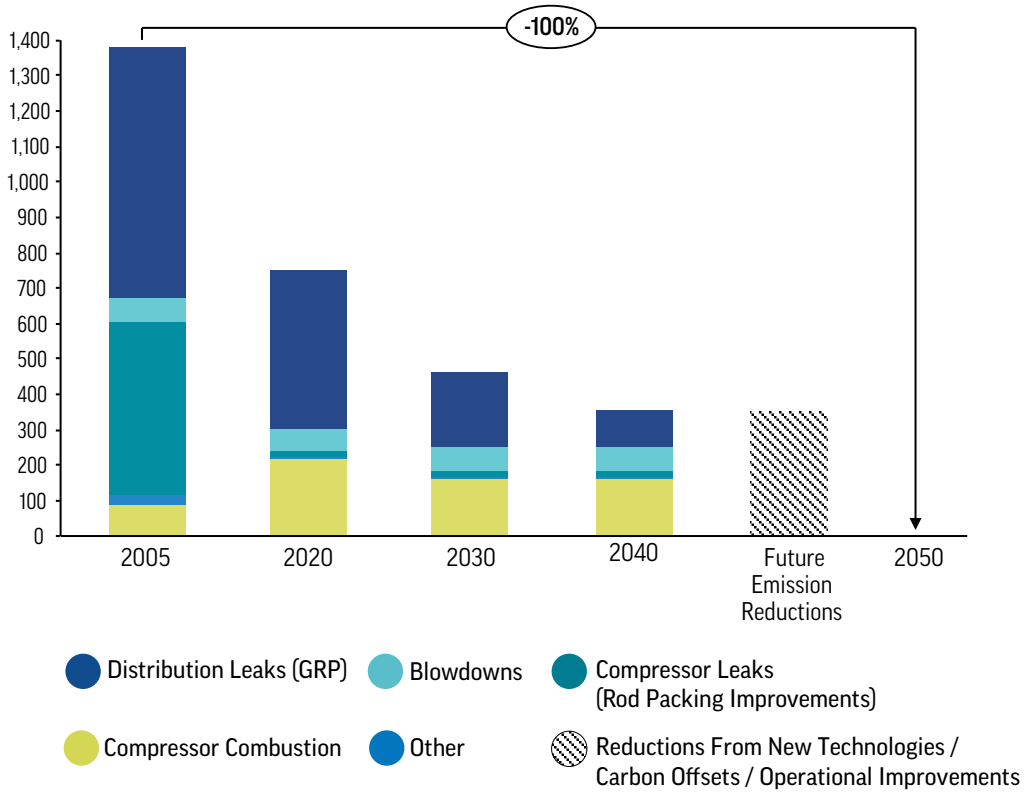
Reducing emissions from the Company's operations

DTE Gas is committed to operating a safe and reliable natural gas system that delivers affordable energy to over 1.3 million customers across the state of Michigan. A key component of maintaining a safe and reliable system is eliminating natural gas leaks. While DTE Gas has been investing in updates to the Company's oldest infrastructure to minimize risk, the Company has seen an associated reduction in GHG emissions. Since 2011, DTE Gas has reduced its annual Scope 1 Emissions attributed to Distribution Mains and Distribution Services by 44% (~269,000 metric tons of CO_2e reduced as of 2024) through GRP's replacement of old, leak-prone materials with modern plastic (See Figure 73). DTE Gas calculates Scope 1 Emissions for this category in accordance with the Greenhouse Gas Mandatory Reporting Rule as specified in 40 CFR Part 98 Subpart W[1].

DTE Gas has also invested in advanced leak detection equipment, which is expected to lead to further safety improvements while again having the added benefit of GHG emissions reduction. DTE Gas is piloting other methane reduction technologies including temporary compression and improved flaring, which could eliminate or reduce GHG emissions when making repairs to the Company's infrastructure. These strategic GHG emissions reductions are a result of investments that support the safe operations of the Company's natural gas system. The Company is able to significantly reduce GHG emissions without increasing costs for DTE Gas' customers.

[1] DTE does not use direct measurement to determine the Scope 1 Emissions for this category, rather, they utilize the total miles, type of pipe, and emission factors to determine the emission quantity. In 2024, the Global Warming Potential emission factor for the methane component increased thus causing an arbitrary increase in carbon dioxide equivalent emissions despite the methane emissions continuing to decrease.

Internal DTE Gas Carbon Emissions Reduction Plan (Million Tons of CO2e) – Figure 73

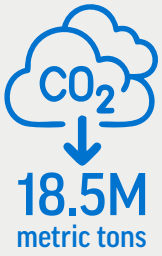


Reducing emissions from natural gas the Company buys

In 2021, DTE Gas recognized the opportunity to reduce GHG emissions, particularly methane leaks from natural gas production and transportation. These GHG emissions occur before the natural gas is delivered to the Company's system. Methane has a global warming potential 28 times greater than CO_2, so reducing methane leaks can rapidly reduce global warming impacts. As a major purchaser, DTE Gas is committed to leveraging its purchasing power to push the entire industry toward cleaner production. The Company joined multiple, industry-wide collaboratives to help develop strategies, standards, and goals to reduce GHG emissions from the production of natural gas. As a member of One Future, DTE Gas is working with industry partners across the value stream to reduce methane emissions to less than 1% of total production. As a member of the Natural Gas Sustainability Initiative (NGSI) the company has promoted accurate reporting to enable companies to make decisions based on emission reductions.

In 2022, DTE Gas purchased Responsibly Sourced Gas (RSG), also referred to as Certified Gas. RSG is natural gas that has been produced with methane emissions below a 0.5% threshold. While there was a small price premium associated with purchasing RSG, DTE Gas leaders viewed this as a worthwhile investment to help establish a reliable market for natural gas producers that are willing to ensure lower-emission operations. DTE Gas purchased additional RSG in 2024, reducing emissions by approximately 5,400 MT CO2e. In 2025, DTE Gas will be evaluating the overall emission intensity of the Company's natural gas supply before determining the best path forward to further encourage emission reduction activities for its suppliers.

Insight M Conclusion– Figure 74



In 2023, a detailed analysis by the methane emissions management consultants at Insight M[1] concluded that GHG emission reduction strategies in the Permian Basin, a major oil and natural gas producing region located in western Texas and southeastern New Mexico, reduced emissions by 18.5M metric tons CO2e. This is equivalent to the expected annual GHG emissions reduction of every existing electric vehicle in the US, if they were powered by zero-emission electricity.

[1] www.insightm.com/about

Reducing emissions from DTE Gas customers' usage

As a natural gas utility, DTE Gas recognizes the largest portion of the Company's GHG emissions come from its customers using the Company's product. Unfortunately, this is also one of the most difficult categories of GHG emissions to reduce. As reflected in the 2030 targets in the MI Healthy Climate Plan, the opportunities to reduce GHG emissions from homes and businesses classified as the "built environment" are significantly less than other categories such as power generation or transportation. But where emission reductions are affordable, DTE Gas is actively supporting the reduction of GHG emissions.

DTE Gas works closely with DTE Energy's energy efficiency group to achieve an estimated 1% reduction in GHG emissions annually, exceeding the standards established in Public Act 229. Improving appliance efficiency, housing insulation, and window construction for individual customers can have a meaningful impact on each participating household's GHG emissions.

Additionally, DTE Gas is enabling further reduction of GHG emissions through the expansion of its natural gas system by displacing delivered fuels or resistance heating with natural gas. This conversion reduces GHG emissions by as much as 15% and saves these customers hundreds of dollars per year. While this increases the Company's overall GHG emissions, these are cost-effective GHG emissions reductions when considering the economy-wide net zero target.

Actions beyond natural gas

In addition to directly reducing GHG emissions associated with natural gas, DTE Gas has been investing in opportunities beyond the "built environment" category. DTE Gas recognized the potential of reducing GHG emissions from the agriculture and waste sectors through the production of renewable natural gas (RNG). Processes such as raising livestock or treating wastewater generate biogas that consists mostly of methane, the main component of natural gas. Through the capture and cleaning of biogas, producers directly replace natural gas molecules with carbon-neutral or very low-carbon RNG.

DTE Gas has been actively collaborating with a diverse group of RNG producers for several years, establishing interconnections onto the DTE Gas system. These efforts have resulted in 21 operational interconnections to date, spanning sources such as wastewater treatment plants, dairy farms, landfills, and wells. Currently, DTE Gas is working closely with a dairy farmer on a new interconnection project that is nearing completion, further expanding the company's commitment to sustainable energy solutions.

Today, RNG is more expensive than natural gas, and would increase costs to DTE Gas customers to incorporate into the Company's existing natural gas supply. The Company has purchased small quantities of RNG to support this developing market. These purchases are supported by the approximately 12,000 enrollees in the voluntary Natural Gas Balance (NGB) program, which empowers DTE Gas customers to choose to balance their own carbon footprint by paying a premium. NGB has helped DTE avoid 68,681 metric tons natural gas-related CO2e through September of 2025. The smaller RNG purchases driven by NGB help the Company support further growth in the market, drive down costs, and establish a long-term view of the viability and application of RNG.

DTE Gas has also explored opportunities within the "natural lands" category by supporting projects that can maximize the GHG emissions reduction of existing land that naturally sequesters carbon, preserves biodiversity, and enhances climate resilience. In 2020 and 2021, DTE Gas entered into agreements with private and public landowners to support the development of forestry carbon offset programs. These programs support responsible forest management, which increases carbon reductions, increases forest diversity, and ensures the long-term health and availability of these important resources. These two projects are expected to capture 2.5 million metric tons CO_2e over their lifetime, the equivalent of 580,000 gasoline-powered passenger vehicles driven for one year, per the EPA's GHG 2025 equivalencies calculator. These investments are also supported by customers' enrollments in the Natural Gas Balance program, with the remaining offsets to support DTE Gas' GHG emission reduction targets.

Future of Natural Gas Demand

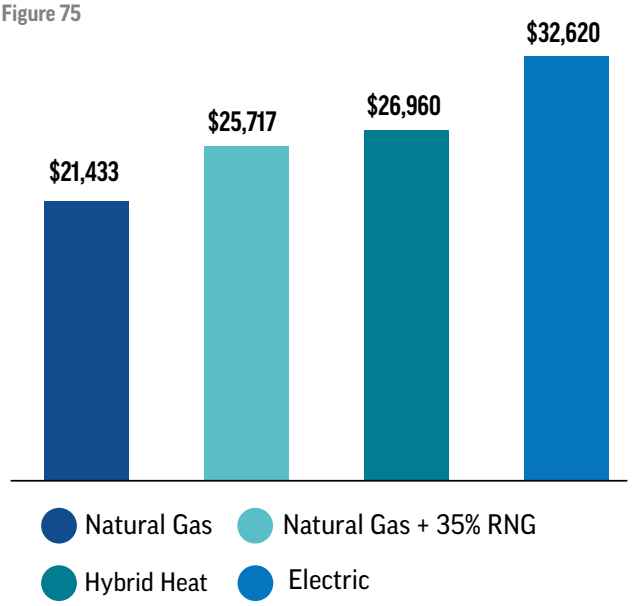
As GHG emission reductions get more aggressive to reach Michigan's 2050 net zero goal, there is likely to be further reduction in natural gas demand. However, the scale of the demand reduction is largely dependent on the technologies used across all sectors to achieve GHG emission reductions. As acknowledged in the MI Healthy Climate Plan, there are viable reduction options today for the "built environment" sector that should be prioritized: the elimination of propane, fuel oil, and electric resistance heating; energy efficiency; and increased financing opportunities for investments that reduce GHG emissions.

These options are all aligned with DTE Gas' base case scenario and align with historical operations. DTE Gas saw an 18% reduction in weather-normalized demand per customer in 2024 compared to 2005[2]. DTE Gas expects to continue to achieve 1% energy efficiency savings annually and replace propane use with natural gas, reducing GHG emissions by 15% for those customers. If DTE Gas' GHG emission reductions within the "built environment" were scaled across the entire sector, Michigan would have already achieved the targeted 17% reduction by 2030 and an estimated 40% reduction from 2005 to 2050. The roughly 20 million metric tons CO2e emissions remaining from this sector could be addressed by a portion of the approximately 40 million metric tons of nature-based carbon reductions currently detailed in the MI Healthy Climate Plan to achieve this state-wide carbon neutrality.

[2] 2005 sales estimated using September 2004 - August 2005. 2024 sales estimated using September 2023 to August 2024.

The scenarios where deeper GHG emission reductions are needed in the "built environment" will require the adoption of additional measures that are more expensive for the Company's customers. DTE Gas has evaluated three scenarios, RNG blending, hybrid heating, and full electrification and determined the most affordable option to reduce GHG emissions would be blending RNG (See Figure 75). It requires no changes for the Company's customers or internal operations and it reduces GHG emissions. The second most affordable scenario is hybrid heating where customers use an electric heat pump for some of their heating but can still leverage natural gas for the colder days of the year. This would be a lower cost alternative to full electrification while still providing GHG emission reductions. In each of these scenarios, a safe and reliable natural gas distribution system is required to provide critical energy delivery during the coldest days of the year.

Forecasted Household HVAC Costs - 15-year Appliance Lifecycle
– Figure 75



Natural gas heat pumps, geothermal networks, and hydrogen are newer technological options that are still being explored and DTE Gas has the skilled workforce and system to support. One key piece of all these scenarios is the need for alignment across Michigan to scale any solutions identified. This is why the MI Healthy Climate Plan proposed a pathway analysis to assess options for decarbonizing buildings that includes energy efficiency, electrification, RNG, hydrogen, and other potential options. DTE Gas is prepared to support Michigan as it identifies the appropriate pathway forward to reduce GHG emissions, support economic growth, and protect the state's most vulnerable citizens.

Non-Pipeline Alternatives (NPAs) Overview

As the state transitions to a lower-emission economy, DTE Gas understands that there may be shifts in natural gas usage that could impact the Company's investment plans. Some utilities, such as those in New York, are emphasizing Non-Pipeline Alternatives (NPAs) in areas where system constraints require new capital investment. NPAs are alternative investments that allow a utility to eliminate or delay the implementation of a traditional pipeline project. While alternative investments are only now being discussed by these utilities, DTE Gas' focus on safety and affordability has resulted in alternative investments regularly being considered in the Company's capital planning process.

As outlined in the PSMS section, DTE Gas' current risk-based prioritization, where the Company annually reviews system risks and projects to mitigate those risks, continues to be the most effective methodology to identify needed investment. As part of this risk-based prioritization, DTE Gas regularly considers multiple options to achieve the desired risk mitigation. During the development phase of major capital projects, DTE Gas evaluates various solutions to balance cost and risk including utilizing hydraulic modeling to simulate complex gas system scenarios. As shown with the Van Born project, the installation of 22 miles of 24" pipeline was avoided by selecting an alternative design of Remote-Control Valves (RCVs) and interconnects with other existing pipelines to achieve similar reliability targets. DTE Gas engineering will continue to participate in industry groups such as American Gas Association, Operations Technology Development (OTD), Utilization Technology Development (UTD), and Gas Technology Institute (GTI) to track different technology solutions that can be leveraged to deliver risk reductions in the most cost-effective manner.

One technology option that is often proposed as an NPA is building electrification. Given the previously discussed costs of electrification (See *Future of Natural Gas Demand*) and strong customer preference for natural gas, DTE Gas is not actively pursuing electrification opportunities to meet natural gas customer demand. However, DTE Gas is participating with the City of Ann Arbor on a networked geothermal project to further understand the challenges and opportunities associated with geographically concentrated electrification efforts. Learnings from this project will be shared with system planning for future considerations.

Summary

DTE Gas has established a realistic and aggressive decarbonization plan that balances impacts to customers' bills and the environment while supporting the State of Michigan's MI Healthy Climate Plan. By 2035, DTE Gas expects to further enhance its energy efficiency programs to help customers manage their consumption. Additionally, DTE Gas expects to source an increasing portion of its natural gas supply from producers with low-to zero-carbon profiles, reduce internal natural gas utility GHG operational emissions, and reduce customer natural gas combustion emissions. These efforts will drive DTE Gas' decarbonization objectives and bring the Company closer to its goals of procuring net zero natural gas and enabling the reduction of customer natural gas combustion GHG emissions by 35% by 2040 (from 2005 levels).

To further support the state's transition to economy-wide net zero, DTE Gas will continue to prioritize low cost carbon reduction solutions like improved land management that can optimize the carbon reduction of Michigan's natural lands. To accelerate decarbonization in the built environment, focusing on developing more RNG and using it in home heating is currently the best approach for Michigan residents. This scenario utilizes the existing natural gas system, which limits investment and cost for customers. DTE Gas' base case scenario is aligned with the state's 2030 goals and is part of a viable pathway to a 2050 carbon neutral state-wide economy.

GHG emission reductions beyond the base case scenario would further increase costs for DTE Gas customers. Ultimately, DTE Gas will continue to implement strategies that drive down GHG emissions and, absent any new policy or regulation, will continue to use the MI Healthy Climate Plan to guide decisions on that journey.

Acronyms

AC . . . . . Alternating Current
AGA . . . . . American Gas Association
AMFC . . . . . Asset Management Foundational Capabilities
API . . . . . American Petroleum Institute
ARMA . . . . . Association of Records Managers and Administrators
Bcf . . . . . Billion Cubic Feet
CAPA . . . . . Corrective and Preventative Action Program
CAR . . . . . Corrective Action Review
CFR . . . . . Code of Federal Regulations
CO2e . . . . . Carbon dioxide equivalent
CRP . . . . . Compression Replacement Program
CTN . . . . . Colder-Than-Normal
CTNP . . . . . Colder-Than-Normal Protection
DA . . . . . Direct Assessment
Dehy . . . . . Dehydration Unit
DIMP . . . . . Distribution Integrity Management Program
DRP . . . . . Distribution Renewal Program
EE . . . . . Energy Efficiency
EEJ . . . . . Energy and Environmental Justice
EGLE . . . . . Michigan Department of Environment, Great Lakes, and Energy
EMAT . . . . . Electro Magnetic Acoustic Transducer
EPA . . . . . Environmental Protection Agency
EUT . . . . . End User Transportation
GARP . . . . . Generally Accepted Recordkeeping Principles
GCC . . . . . Gas Customer Choice
GCR . . . . . Gas Cost Recovery
GDP . . . . . Gas Delivery Plan
GHG . . . . . Greenhouse Gas
GIS . . . . . Geographic Information System
GRP . . . . . Gas Renewal Program
GTI . . . . . Gas Technology Institute
HCA . . . . . High Consequence Areas
HDD . . . . . Horizontal Directional Drilling
HP . . . . . Horsepower
HVAC . . . . . Heating Ventilation, and Air Conditioning
IAS . . . . . Industrial Automation Software
ICS . . . . . Incident Command Structure
IFR . . . . . Interim Final Rule
ILI . . . . . In Line Inspection
INGAA . . . . . Interstate Natural Gas Association of America
IRM . . . . . Investment Recovery Mechanism
ISO . . . . . International Organization for Standardization
IT . . . . . Information Technology
LDAR . . . . . Leak Detection and Repair
LEL . . . . . Lower Explosive Limit
LIA . . . . . Low-Income Assistance Credit
LSP . . . . . Low-income Self-sufficiency Program
MAOP . . . . . Maximum Allowable Operating Pressure
MCA . . . . . Moderate Consequence Area
MGH . . . . . Michigan Gas Holdings
MGSS . . . . . Michigan Gas Safety Standards
MIC . . . . . Microbially Induced Corrosion
MLV . . . . . Main Line Valves
MMcf/d . . . . . Million Cubic Feet per Day
MOC . . . . . Management of Change
MORT . . . . . Management of Risk Tree
MPSC . . . . . Michigan Public Service Commission
NGB . . . . . Natural Gas Balance
NGSI . . . . . Natural Gas Sustainability Initiative
NPAs . . . . . Non-Pipeline Alternatives
NPRM . . . . . Notice of Proposed Rulemaking
NTSB . . . . . National Transportation Safety Board
O&M . . . . . Operations and Maintenance
OEM . . . . . Original Equipment Manufacturer
OQ . . . . . Operator Qualifications
ORR . . . . . Operational Risk and Resilience
OT . . . . . Operational Technology
OTD . . . . . Operations Technology Development
PEPL . . . . . Panhandle Eastern Pipeline
PHMSA . . . . . Pipeline and Hazardous Materials Safety Administration
PPB . . . . . Parts per Billion
PPM . . . . . Parts per Million
PRA . . . . . Probabilistic Risk Assessment
Psig . . . . . Pounds per Square Inch Gauge
PSO . . . . . Pipeline Safety Observations
PSMS . . . . . Pipeline Safety Management System
PSRB . . . . . Pipeline Safety Review Board
QA . . . . . Quality Assurance
QC . . . . . Quality Checks
QMS . . . . . Quality Management System
RCA . . . . . Root Cause Analysis
RCV . . . . . Remote Control Valve
RIA . . . . . Residential Income Assistance Credit
RMC . . . . . Risk Management Committee
RNG . . . . . Renewable Natural Gas
RP . . . . . Recommended Practice
RSG . . . . . Responsibly Sourced Gas
RSRP . . . . . Regulator Station Replacement Program
SCADA . . . . . Supervisory Control and Data Acquisition
SCC . . . . . Stress Corrosion Cracking
SD . . . . . Security Directives
SEA . . . . . State Energy Assessment
SEMI . . . . . Southeast Michigan
SFL . . . . . Station Feature List
SME . . . . . Subject Matter Expert
SMYS . . . . . Specified Minimum Yield Strength
SOLR . . . . . Supplier of Last Resort
TCARP . . . . . Traverse City Alpena Replacement Project
TIMP . . . . . Transmission Integrity Management Program
TRP . . . . . Transmission Renewal Program
TSA . . . . . Transportation Security Administration
TSO . . . . . Transmission and Storage Operations
TVC . . . . . Traceable, Verifiable, and Complete
UNGSIMP . . . . . Underground Natural Gas Storage Integrity
UTD . . . . . Utilization Technology Development Management Program
VCA . . . . . Volume Cost Averaging
WPEP . . . . . Well Pad Expansion Program
WRP . . . . . Well Renewal Program