

Serving Our Customers, Communities and Investors



DTE

A photograph of two wind turbines silhouetted against a bright orange sunset sky. The sun is a glowing orb between the two turbines. The foreground shows dark silhouettes of trees and a field.

Introduction

At DTE Energy, we serve, lead and transform with our energy. It's not just a corporate saying plastered on our walls – it's how we show up to work each and every day. Achieving great results for our customers, communities and investors inspires all of us. It is how we will reach our aspiration to be the best-operated energy company in North America and a force for growth and prosperity in the communities where we live and serve.

This is an exciting and challenging time in the energy industry. We are in the midst of an energy transformation that is driven by the desire for safe, clean, affordable and reliable power to help mitigate the effects of climate change. We are investing in new, modern infrastructure across our electric and gas service territories that meets the needs of the 21st century economy and provides us the means of delivering cleaner energy to Michigan homes and businesses. We're integrating best-in-class, smart technologies to achieve greater reliability, safety and energy efficiency.

Our environmental leadership and goals to cut greenhouse gas emissions 80% by 2040, our commitment to affordability, our progressive approach on workforce development, our world-class volunteerism, and our focus on employee engagement and diversity and inclusion are just some of the ways we are serving our customers and communities – and each other.

This document is an overview of DTE's Environmental, Social and Governance (ESG) strategy and our commitment to create and sustain long-term value for all stakeholders. It is part of an industry initiative, coordinated by the Edison Electric Institute and American Gas Association, and provides investors and other stakeholders with qualitative and quantitative ESG information about our company.

“Achieving our carbon reduction goals will require significant investments in the years ahead - and we are convinced we can make those investments while ensuring that electricity remains highly reliable and affordable for Michigan homes and businesses.”

Jerry Norcia,
President and Chief Executive Officer,
DTE Energy

Environmental

Climate change is one of the defining public policy issues of our time. Just two years ago, DTE led the energy industry with our commitment to reduce carbon emissions by more than 80% by 2050. But we didn't stop there. In March 2019, we announced we are accelerating our goal by a full decade, pledging to reduce emissions by 80% by 2040, when we will retire our last coal plant. And in the near-term, we have committed to a 50% carbon reduction by 2030.

While we reduce carbon emissions from our electric generation, DTE Gas also has committed to reduce emissions of another greenhouse gas – methane – by more than 80%. We're controlling methane leaks by replacing hundreds of miles of older natural gas pipelines with safer, air-tight materials and through maintenance upgrades at DTE natural gas compression stations.

These goals align with the target climate scientists have identified as necessary to effectively address climate change. While it may be difficult to assess an individual company's contribution to mitigating climate change, our carbon reduction plan assumes a tighter reduction curve than had been included in the U.S. Environmental Protection Agency's Clean Power Plan and the U.S. targets from the Paris Climate Accord.

Reducing
emissions

80%
by 2040

Our Journey to 80% Carbon Reduction

We will achieve our commitment through aggressive investment in energy efficiency, renewables, a new state-of-the-art natural gas combined-cycle plant, our voluntary renewable programs and earlier coal plant retirements. In our [2019 Integrated Resource Plan](#), we demonstrate we can do this in a way that ensures our energy sources remain reliable and the power they produce affordable. The plan, submitted to the Michigan Public Service Commission per Michigan's 2016 energy law, focuses on the next five years and considers the most affordable and reliable mix of generation sources that are available today. We will continue to revisit and refine our plan as technology develops, customer desires and trends become more clear, and costs decline.

Accelerating Coal Plant Retirements

In 2022, DTE will retire three aging power plants – River Rouge, St. Clair and Trenton Channel, which account for nearly 20% of our total generation – one year earlier than we originally intended. We want to move forward as quickly as possible to achieve our carbon-reduction goal, and need to do it in a way that balances the reliability of the energy grid. We also are working closely with our employees and the impacted communities during this transition, including a commitment to no employee layoffs. We will phase out our last two coal plants over the next 20 years – Belle River will retire by 2030 and Monroe Power Plant by 2040.



The Next Five Years:



Retire River Rouge, Trenton Channel and St. Clair Power Plants in 2022



Blue Water Energy Center Comes online in 2022



More than double renewables by 2024, investing nearly \$2 billion



Expand voluntary renewable assets, building up to an additional 25 percent more to meet customer demand



Invest in energy efficiency programs, reducing customer usage 1.75% per year

Five Years After That:



Retire Belle River Power Plant



Increase renewables to at least 25% of supply, and potentially 30% of supply through voluntary additions



Continue 1.75% energy efficiency and review biannually

The Future:



Retire Monroe Power Plant



Increase renewables, energy efficiency and demand response consistent with carbon reduction goals

There are multiple pathways to meet carbon goals and generation needs in 2030 and beyond; we will remain flexible and present potential future options in our next IRP.

Doubling Renewable Energy by 2024

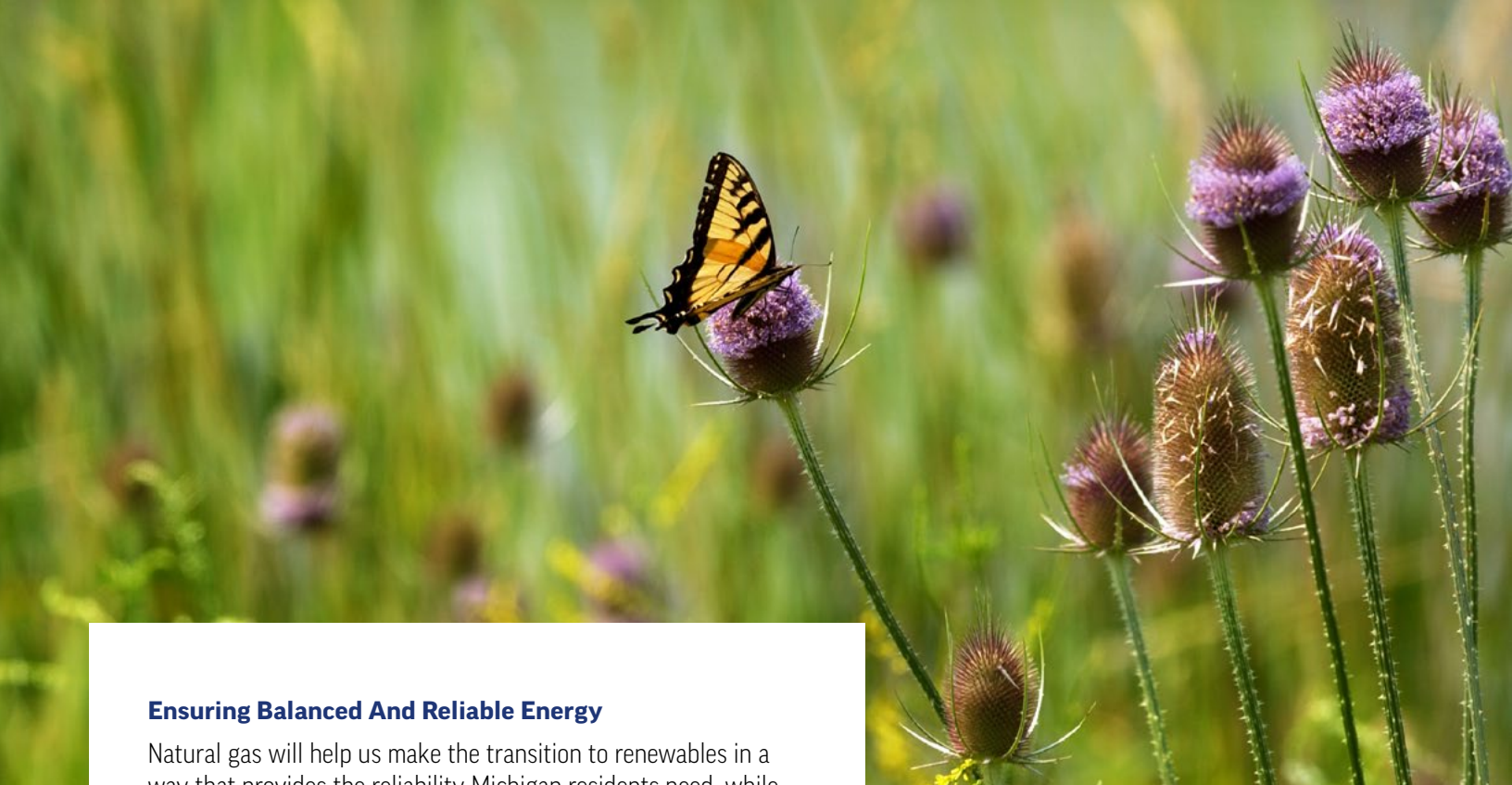
DTE is Michigan's largest renewable-energy provider. By 2024, we will more than double our wind and solar energy, generating enough clean energy to power 800,000 Michigan homes. By the time we remove all coal from our generation fleet in 2040, our renewable-energy portfolio will have quadrupled. Since 2009, we've driven investments of \$2.8 billion in renewable energy – a figure that will increase to \$4.8 billion by 2024.

Combating climate change must be a cross-industry effort, so we've expanded our MIGreenPower voluntary renewables program to our large business and industrial customers who are working to meet their own sustainability goals, enabling them to invest in renewable energy and help drive our state to an even cleaner future. We recently announced partnerships with Ford, General Motors and the University of Michigan that will provide 1 million megawatt-hours (MWh) of renewable energy collectively for these three customers annually. MIGreenPower is a voluntary renewable energy program that provides DTE's residential and business customers with an easy and affordable way to reduce their carbon footprint by increasing the percentage of their energy use attributable to local wind and solar energy sources, up to 100%.

Increasing Energy Efficiency

When homes and businesses reduce their energy use, we can generate less electricity, benefiting both customers' pocketbooks and the environment. We have raised our commitment to increasing energy efficiency at a level equivalent to 1.75% of sales annually, 75% more than the level required by law, and up from our previous 1.5% commitment. Our efforts already have resulted in nearly 700 MW annually of reduced energy demand since 2009, equivalent to the energy produced by one large power plant.





Ensuring Balanced And Reliable Energy

Natural gas will help us make the transition to renewables in a way that provides the reliability Michigan residents need, while significantly reducing our carbon footprint. Natural gas plants are a highly efficient, low-emission energy source that provide reliable, on-demand, 24/7 electricity. The Blue Water Energy Center (BWEC) will be a state-of-the-art, natural gas combined-cycle plant and one of the most efficient plants in the United States. It will help to replace three retiring coal plants, allowing Michigan to have both a sharp reduction in carbon emissions and an always-available energy source. The plant represents a nearly \$1 billion investment in Michigan. Construction jobs will peak at about 520 full-time positions during construction and will provide about 35 full-time positions once the plant is in operation.

The Ludington Pumped Storage Power Plant, which DTE co-owns with Consumers Energy, is located on a 1,000-acre site on Lake Michigan in Mason County and is the second-largest pumped storage facility in the U.S. The plant generates hydroelectric power and supports our renewables generation because it acts like a giant battery that can be tapped when renewable output drops. The reversible turbines work as pumps when energy is plentiful and low-cost, such as when the sun is shining and the wind is blowing, and as power generators when demand is higher and renewable sources less abundant. An \$800 million upgrade project to replace each of the six turbines is on schedule to be completed in 2020.

Caring for the Environment

At DTE Energy, we work to take care of the land, water and living creatures within our service territories and beyond. We maintain thousands of acres of land in its natural state and provide habitat for hundreds of species of birds, mammals, fish and insects. DTE has 37 sites certified under the Wildlife Habitat Council, a nonprofit organization that helps companies manage their property for the benefit of wildlife. Our leadership in wildlife management was recognized by the Wildlife Habitat Council by winning their 2018 Corporate Conservation Leadership Award.

DTE Electric and DTE Gas recently received third-party certification to the 2015 ISO 14001 Standard for Environmental Management Systems. While we have had certified ISO 14001 facilities since 2001, in 2018 we completed a corporate-wide ISO 14001 certification that describes a systematic framework of processes to review, meet and improve our environmental obligations across our utility operations. For more information on our environmental performance, including information on air, water, waste and remediation projects, please see our sustainability reports at www.DTEImpact.com.



Creating a Smarter Energy Grid

To meet the needs of today's modern homes and high-tech businesses, Michigan's aging infrastructure requires significant investment. DTE Energy is doing its part by spending nearly \$4.2 billion from 2018-2022 on upgrading the distribution system to improve the safety and reliability for the customers we serve while continuing to provide an affordable energy source. Our strategy encompasses many technical projects concentrated in four main areas:

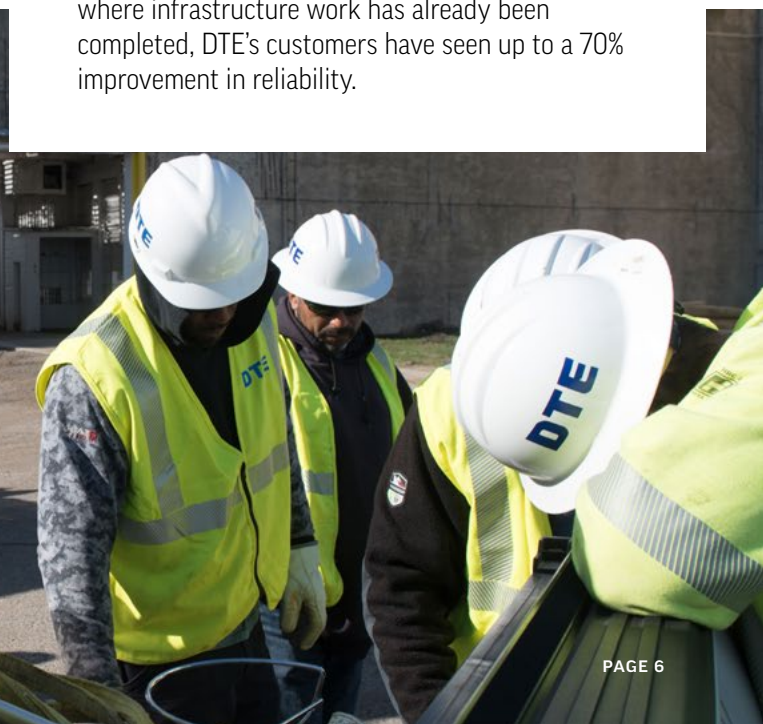
- **Tree trimming** – trimming trees across 31,000 miles of overhead power lines. Two-thirds of the time that DTE customers spend without power is due to trees. Trimming trees has proven to reduce tree-related outages by up to 70%.
- **Infrastructure resilience and hardening** – replacing poles and wires, and installing equipment to reduce outage lengths and limit the number of customers impacted by an outage event.
- **Infrastructure redesign** – converting older circuits and substations to more modern design and technology standards, as well as expanding the electrical system to meet growing demand
- **Technology and automation** – high-tech distribution management systems, and system monitoring and automation to improve reliability and system performance

These upgrades will strengthen the energy grid and positively impact Michigan's economy, bringing jobs through both DTE hires and partnerships with local contractors and businesses. In areas where infrastructure work has already been completed, DTE's customers have seen up to a 70% improvement in reliability.

Identifying, Governing and Managing Climate-Related Risks

DTE Energy has a robust process for evaluating enterprise-level risks. The Board of Directors receives, reviews and assesses reports from Board committees and from management regarding enterprise-level climate-related risks. Our key climate-related risks around our plan to reduce carbon emissions 80% by 2040 would be those that impact our ability to achieve both healthy financial growth and affordable customer bills. For example, policies that may cause a sharp acceleration of carbon goals could drive up customer rates too fast if we are unable to pace or spread the investments over an adequate timeframe.

As a Michigan-based energy company, the physical risks from climate change, such as increased severe weather events and changing Great Lakes levels, are already incorporated into our business planning processes for improving the resiliency of our generation portfolio, as described above, and in our energy grid infrastructure upgrade strategy.



Social

DTE views its ESG commitments through a holistic lens that includes our employees, customers, communities and investors. We believe that when these – our primary stakeholders – thrive, so too will our company.

Our Employees

Our work with our employees and customers is deeply intertwined. In providing employees with a safe, healthy, engaging and diverse work environment, we increase their satisfaction and, in turn, their service to our customers. DTE is ranked in the top three percent among employers worldwide in engagement by Gallup. The extraordinary improvement we've experienced in this ranking can be attributed to a persistent focus on engagement, including our top decile safety performance, comprehensive health and wellness programs, a robust Diversity and Inclusion Program that has launched eight employee resource groups, and a thriving volunteerism program that reached world-class status in 2018.

With an eye toward a wave of impending retirements, DTE also is creating opportunities for students and those with barriers to employment to join our company in the years ahead. DTE sponsored 1,500 summer youth employment opportunities across the state and took a leadership role in revitalizing two career and technical educational schools in Detroit, increasing enrollment more than 700% and preparing students to fill the jobs gap. We are amplifying our impact by engaging our peers and suppliers: DTE's and our peers' suppliers have partnered to provide 2,000 entry-level positions for Detroiters.

5,100

5,100 volunteers -
Half our workforce,
best in class!

\$6M

\$6 million
value of in-kind
services

88,000

88,000 hours
volunteered

828

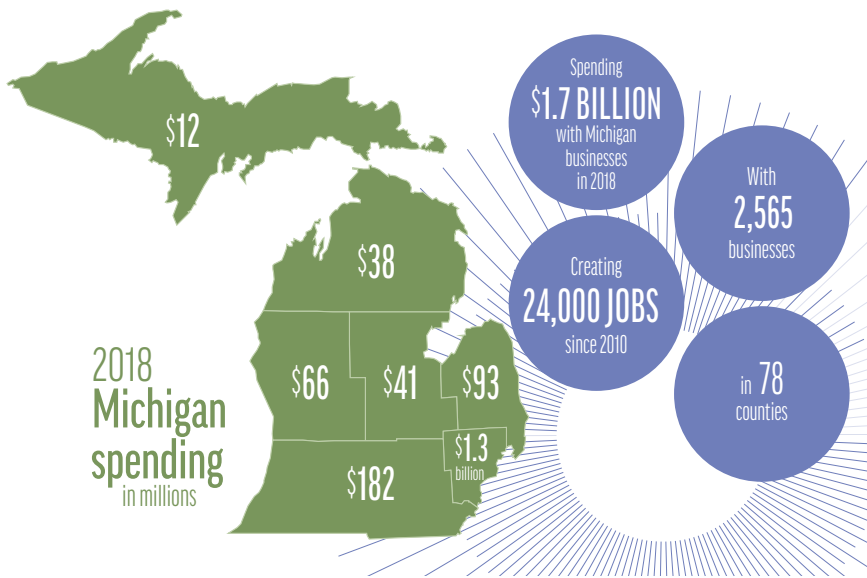
828 nonprofits
helped

Our Customers

Our commitment to providing clean and reliable energy extends to all our customers, including those who are vulnerable. DTE enrolled 34,000 households in our Low-Income Self Sufficiency Plan in 2018. The company also hosted 20 Customer Assistance Days statewide, helping our economically vulnerable customers access \$3 million in energy assistance. In addition, DTE donated \$10 million to The Heat and Warmth Fund in further assistance to vulnerable households. The non-profit provides help to the elderly, unemployed, underemployed and disabled people in energy crisis.



Investing \$9.2 billion with Michigan businesses since 2010



Our Communities

From the revitalization of neighborhoods to economic development, outreach into the community is key to our company's culture.

DTE works in neighborhoods across our service territory to help residents realize their vision for their community. From placemaking to beautification and workforce development, we work hand-in-hand with residents.

We also are leading the way in building bridges between the city and the surrounding communities because the economic success of our region is integral to the success of our business. With DTE's leadership and support, the Detroit Regional Partnership, a new and collaborative regional economic development group that represents 11 counties in southeast Michigan, is creating a world-class marketing and attraction economic development arm, sending a message to the world that Southeast Michigan is a united region, has strong assets and is open for business.

From a statewide perspective, DTE spent more than \$1.7 billion with Michigan suppliers in 2018 and will increase that commitment to \$1.9 billion in 2019 – a four-fold increase since 2011. Additionally, we add more than \$200 million to local economies annually across Michigan with our Foundation's support of festivals and events. DTE's own Beacon Park, developed on a former industrial parcel adjacent to our headquarters, has spurred \$140 million in development in its neighborhood and attracted more than a million visitors since its opening in 2017.

As a result of these efforts, DTE's customer satisfaction has improved year over year, as evidenced by strong J.D. Power and Associates. In 2018, DTE also was named among the Civic 50 by Points of Light, recognizing DTE as one of the top 50 corporate citizens in the country, the top-ranking utility and the only Michigan-based company to receive the award.

Our Investors

We believe that ESG best practices - such as producing clean, affordable and reliable energy, emphasizing workplace diversity and inclusion and providing strong corporate governance policies and practices - will continue our ability to create long-term value while effectively managing risk. Over the last five years, we have consistently reached out to engage our investors in ESG discussions. These discussions have helped us understand what's important to investors and provided a way for our Board of Directors and management to proactively respond to investor feedback. We also remain committed to improving our ESG transparency and enhancing our disclosures. Over the last several years, ESG investing has grown exponentially, and investors are increasingly taking into account the ESG performance of corporations in their investment strategies. In response, we are working aggressively to enhance the quality of our ESG information - in news releases, investor presentations, and on our website - and make it easily accessible for investors and rating agencies.



Governance

At DTE Energy, the oversight of environmental stewardship, sustainability and governance – including risk management – rests with the Board of Directors.

Board of Directors

Elected annually by our shareholders, the Board of Directors meets regularly to lead the company in fulfilling its mission and achieving its goals. With respect to sustainability, the Board of Directors:

- Bears responsibility for oversight of plans to create long-term value for shareholders while ensuring that the company operates in an environmentally sensitive and socially responsible manner
- Oversees company management and assesses the effectiveness of management policies and decisions, including management's development and execution of the company's strategies
- Approves all major environmental initiatives

Board Sub-Committees

The Corporate Governance Committee is tasked with reviewing risks associated with the company's governance practices and the interaction of the company's governance with enterprise risk-level management.

The Public Policy and Responsibility Committee (PPRC) is tasked with reviewing the company's performance as a responsible corporate citizen and promoting policies to enable the company to respond appropriately to its social responsibilities. The PPRC advises the Board of Directors on emerging ESG Issues, including climate change.

DTE Energy's Senior Management Team:

- Executes the company's ESG strategy in consultation with the Board of Directors
- Manages our environmental compliance processes and carbon reduction strategy
- Mobilizes our employees, resources and partner organizations to strengthen and promote prosperity in our communities
- Reports to the Board of Directors the outcomes of our ESG initiatives
- Manages risks and opportunities associated with environmental and sustainability initiatives
- Receives compensation tied to achievement of company goals, including ESG targets

Environmental, Social and Governance Team

The cross-functional ESG Team was formed to coordinate and execute the company's multiple streams of ESG disclosures. The ESG Team includes members from Legal, Corporate Communications, Environmental, Investor Relations, Public Affairs, Accounting, Human Resources, and the Corporate Secretary's Office.

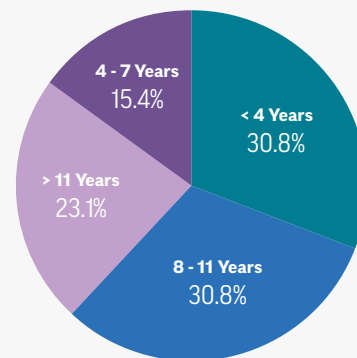
Governance Highlights

The Board is committed to creating long-term value for our shareholders while operating in an ethical, legal, environmentally sensitive and socially responsible manner. The Board follows sound governance practices, some of which are highlighted below:

- All but two of DTE's directors are independent; our executive chairman and our president and chief executive officer are the only management directors.
- All Board committees are composed exclusively of independent directors.
- We have implemented a proxy access provision, which makes it possible for a group of shareholders meeting certain criteria to nominate and include in the Company's proxy materials a candidate for the Board.
- We have a Lead Independent Director, elected by the independent members of the Board. The Lead Independent Director maintains final approval authority over Board agendas, meeting materials and schedules. The Lead Independent Director also is available for consultation and direct communication with large shareholders.
- All of our directors are elected annually.
- The Board and its committees conduct annual self-assessments. In addition, each independent director who has served for one year or more undergoes an annual peer review.
- Our executive officers and directors are all subject to robust stock ownership requirements.
- We have instituted anti-hedging policies applicable to all company directors, officers and employees.
- Our Board's Mission and Governance Guidelines recommend that the Board consider a diversity of characteristics including experience, gender, race, ethnicity and age when evaluating nominees for the board.
- Please see 2019 Proxy Statement for further information.

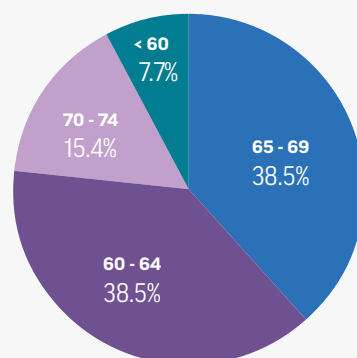
Board of Directors Make-Up

TENURE



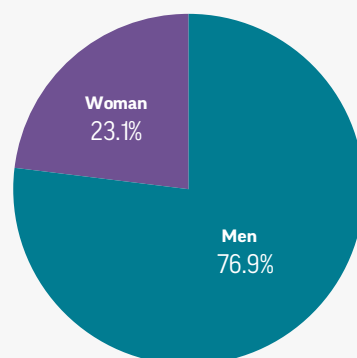
Average Tenure: 7.5 years

AGE

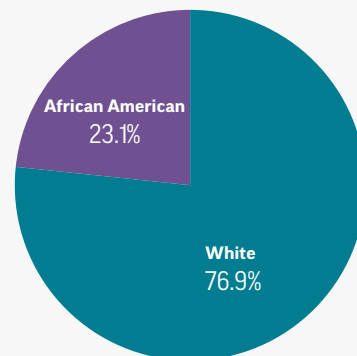


Average Age: 65 years

GENDER



ETHNICITY



EEI ESG/Sustainability Template – Section 2: Quantitative Information

Disclaimer: All information below is being provided on a voluntarily basis, and as such, companies may elect to include or exclude any of the topics outlined below and customize the template to their specific needs. The decision to include data for historical and future years is at the discretion of each company and the specific years (e.g., historical baseline) should be chosen as appropriate for each company.

Parent Company: DTE Energy
 Operating Company(s): DTE Electric
 Business Type(s): Vertically Integrated
 State(s) of Operation: Michigan
 State(s) with RPS Programs: Michigan
 Regulatory Environment: Regulated
 Report Date: May 28, 2019

Ref. No.		Baseline 2005 Actual	Last Year 2017 Actual	Current Year 2018 Actual	Next Year 2019 Forecast	Comments, Links, Additional Information, and Notes
PORTFOLIO						

1	Owned Nameplate Generation Capacity at end of year (MW)					
1.1	Coal	7,733	6,178	6,153	6,153	
1.2	Natural Gas	2,683	2,957	2,957	2,957	
1.3	Nuclear	1,154	1,161	1,161	1,161	
1.4	Petroleum	666	325	325	325	
1.5	Total Renewable Energy Resources	997	1,845	1,890	2,052	
1.5.1	Biomass/Biogas	8	321	321	321	
1.5.2	Geothermal	0	0	0	0	
1.5.3	Hydroelectric	989	1,019	1,054	1,054	
1.5.4	Solar	0	56	65	65	
1.5.5	Wind	0	449	451	612	

2	Net Generation for the data year (MWh)					
2.1	Coal	41,764,875	26,559,727	28,440,814	27,951,000	
2.2	Natural Gas	1,033,086	2,230,042	2,876,595	1,439,000	
2.3	Nuclear	8,753,555	9,565,994	7,358,490	9,525,000	
2.4	Petroleum	7,800	80,188	88,511	11,000	
2.5	Total Renewable Energy Resources	551,685	3,677,031	3,396,276	4,111,000	
2.5.1	Biomass/Biogas	---	529,414	487,886	---	
2.5.2	Geothermal	---	0	0	---	
2.5.3	Hydroelectric	---	56,841	20,934	---	
2.5.4	Solar	---	82,204	96,571	---	
2.5.5	Wind	---	3,008,572	2,790,885	---	

Ref. No.		Baseline 2005 Actual	Last Year 2017 Actual	Current Year 2018 Actual	Next Year 2019 Forecast	Comments, Links, Additional Information, and Notes
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3 Investing in the Future: Capital Expenditures, Energy Efficiency (EE), and Smart Meters

3.1	Total Annual Capital Expenditures (nominal dollars)	\$722,000,000	\$1,574,000,000	\$1,979,000,000	\$2,200,000,000	
3.2	Incremental Annual Electricity Savings from EE Measures (MWh)	N/A	677,000	727,907	702,850	
3.3	Incremental Annual Investment in Electric EE Programs (nominal dollars)	N/A	\$93,000,000	\$106,600,000	\$105,200,000	
3.4	Percent of Total Electric Customers with Smart Meters (at end of year)	0%	99%	100%	100%	

4 Retail Electric Customer Count (at end of year)

4.1	Commercial	126,706	158,116	157,619	---	
4.2	Industrial	2,235	2,077	2,124	---	
4.3	Residential	2,043,475	2,437,250	2,439,722	---	

EMISSIONS

5 GHG Emissions: Carbon Dioxide (CO₂) and Carbon Dioxide Equivalent (CO₂e)

5.1 Owned Generation

5.1.1	Carbon Dioxide (c)					
5.1.1.1	Total Owned Generation CO ₂ Emissions (MT)	38,434,949	28,503,788	30,616,992	30,429,770	
5.1.1.2	Total Owned Generation CO ₂ Emissions Intensity (MT/Net MWh)	0.738	0.677	0.726	0.707	
5.1.2	Carbon Dioxide Equivalent (CO ₂ e)					
5.1.2.1	Total Owned Generation CO ₂ e Emissions (MT)	N/A	28,701,596	30,846,719	N/A	CO ₂ e was not considered in 2005. DTE does not provide a target for CO ₂ e.
5.1.2.2	Total Owned Generation CO ₂ e Emissions Intensity (MT/Net MWh)	N/A	0.682	0.732	N/A	CO ₂ e was not considered in 2005. DTE does not provide a target for CO ₂ e.

5.2 Purchased Power

5.2.1	Carbon Dioxide (CO ₂)					
5.2.1.1	Total Purchased Generation CO ₂ Emissions (MT)	824,758	4,503,962	5,435,100	2,375,300	
5.2.1.2	Total Purchased Generation CO ₂ Emissions Intensity (MT/Net MWh)	0.710	0.740	0.740	0.740	
5.2.2	Carbon Dioxide Equivalent (CO ₂ e)					
5.2.2.1	Total Purchased Generation CO ₂ e Emissions (MT)	N/A	4,528,729	5,464,988	N/A	CO ₂ e was not considered in 2005. DTE does not provide a target for CO ₂ e.
5.2.2.2	Total Purchased Generation CO ₂ e Emissions Intensity (MT/Net MWh)	N/A	0.744	0.744	N/A	CO ₂ e was not considered in 2005. DTE does not provide a target for CO ₂ e.

Ref. No.		Baseline 2005 Actual	Last Year 2017 Actual	Current Year 2018 Actual	Next Year 2019 Forecast	Comments, Links, Additional Information, and Notes
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5.3 Owned Generation + Purchased Power

5.3.1	Carbon Dioxide (CO ₂)					
5.3.1.1	Total Owned and Purchased Generation CO ₂ Emissions (MT)	39,259,707	33,007,750	36,052,092	32,805,071	
5.3.1.2	Total Owned and Purchased Generation CO ₂ Emissions Intensity (MT/Net MWh)	0.737	0.685	0.728	0.709	
5.3.2	Carbon Dioxide Equivalent (CO ₂ e)					
5.3.2.1	Total Owned and Purchased Generation CO ₂ e Emissions (MT)	N/A	33,230,325	36,311,707	N/A	CO ₂ e was not considered in 2005. DTE does not provide a target for CO ₂ e.
5.3.2.2	Total Owned and Purchased Generation CO ₂ e Emissions Intensity (MT/Net MWh)	N/A	0.689	0.733	N/A	CO ₂ e was not considered in 2005. DTE does not provide a target for CO ₂ e.

5.4 Non-Generation CO₂e Emissions

5.4.1	Fugitive CO ₂ e emissions of sulfur hexafluoride (MT)	N/A	N/A	N/A	N/A	Below threshold for reporting to EPA.
5.4.2	Fugitive CO ₂ e emissions from natural gas distribution (MT)	N/A	582,623	478,800	N/A	CO ₂ e was not considered in 2005. DTE does not provide a target for CO ₂ e.

6 Nitrogen Oxide (NO_x), Sulfur Dioxide (SO₂), Mercury (Hg)

6.1	Generation basis for calculation	TOTAL				
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6.2 Nitrogen Oxide (NO_x)

6.2.1	Total NO _x Emissions (MT)	58,477	18,465	19,762	14,923	
6.2.2	Total NO _x Emissions Intensity (MT/Net MWh)	1.12E-03	4.38E-04	4.69E-04	3.47E-04	

6.3 Sulfur Dioxide (SO₂)

6.3.1	Total SO ₂ Emissions (MT)	194,205	40,355	41,735	36,367	
6.3.2	Total SO ₂ Emissions Intensity (MT/Net MWh)	3.73E-03	9.58E-04	9.90E-04	8.45E-04	

6.4 Mercury (Hg)

6.4.1	Total Hg Emissions (kg)	724.9	74.2	69.5	70.8	
6.4.2	Total Hg Emissions Intensity (kg/Net MWh)	1.39E-05	1.76E-06	1.65E-06	1.64E-06	

RESOURCES

7 Human Resources

7.1	Total Number of Employees	11,360	10,422	10,927		
7.2	Total Number on Board of Directors/Trustees	13	13	13		
7.3	Total Women on Board of Directors/Trustees	2	2	3		
7.4	Total Minorities on Board of Directors/Trustees	3	3	3		
7.5	Employee Safety Metrics	---	---	---		
7.5.1	Recordable Incident Rate	N/A	0.67	0.51		

Ref. No.		Baseline 2005 Actual	Last Year 2017 Actual	Current Year 2018 Actual	Next Year 2019 Forecast	Comments, Links, Additional Information, and Notes
7.5.2	Lost-time Case Rate	N/A	0.21	0.12		
7.5.3	Days Away, Restricted, and Transfer (DART) Rate	N/A	0.37	0.20		
7.5.4	Work-related Fatalities	N/A	0	0		

8 Fresh Water Resources

8.1	Water Withdrawals - Consumptive (Billions of Liters/Net MWh)	1.53E-06	1.76E-06	1.80E-06		
8.2	Water Withdrawals - Non-consumptive (Billions of Liters/Net MWh)	1.01E-04	9.26E-05	9.65E-05		

9 Waste Products

9.1	Percent of Non-hazardous Municipal Solid Waste Diverted	—	—	27.33%		Includes DTE Electric Service Centers, Fermi Nuclear Plant, DTE Gas Service Centers, DTE Headquarters
9.2	Percent of Coal Combustion Products Beneficially Used	—	49.91%	54.11%		

AGA Voluntary Sustainability Metrics: Quantitative Information

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Parent Company: DTE Energy
 Operating Company(s): DTE Gas; DTE Gas, Storage, and Pipeline
 Business Type(s): Michigan, New York, Pennsylvania, West Virginia
 State(s) of Operation: Michigan
 Regulatory Environment: Both; Regulated & Non-Regulated
 Note: Data from from operating companies is rolled up to the corporate level.
 Report Date: May 28, 2019

Ref. No.		Last Year 2017	Current Year 2018	Definitions	Comments, Links, Additional Information, and Notes
NATURAL GAS DISTRIBUTION					
1	METHANE EMISSIONS AND MITIGATION FROM DISTRIBUTION MAINS				
1.1	Number of Gas Distribution Customers	1,253,400	1,263,752		
1.2	Distribution Mains in Service			These metrics should include all local distribution companies (LDCs) held by the Parent Company that are above the LDC Facility reporting threshold for EPA's 40 C.F.R. 98, Subpart W reporting rule.	
1.2.1	Plastic (miles)	10,834	11,537		
1.2.2	Cathodically Protected Steel - Bare & Coated (miles)	5,202	5,194		
1.2.3	Unprotected Steel - Bare & Coated (miles)	1,382	1,358		
1.2.4	Cast Iron / Wrought Iron - without upgrades (miles)	2,098	1,987		
1.3	Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (# years to complete)			These metrics should provide the number of years remaining to take out of service, replace or upgrade cathodically unprotected steel mains, and cast iron/ wrought iron mains, consistent with applicable state utility commission authorizations.	DTE is scheduled to complete the replacement/upgrade by 2035.
1.3.1	Unprotected Steel (Bare & Coated)	17	16		
1.3.2	Cast Iron / Wrought Iron	17	16		
2	Distribution CO₂e Fugitive Emissions				
2.1	CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	581,882	478,184	Fugitive methane emissions (not CO ₂ combustion emissions) stated as CO ₂ e, as reported to EPA under 40 CFR 98, Subpart W, sections 98.236(a)(3)(ix)(C) and (D), 98.236(r)(1)(iv) and (v), and 98.236(r)(2)(v)(A) and (B). This metric should include fugitive methane emissions above the reporting threshold for all natural gas local distribution companies (LDCs) held by the Parent Company that are above the LDC Facility reporting threshold for EPA's 40 C.F.R. 98, Subpart W reporting rule.	
2.2	Natural Gas Throughput from Gas Distribution Operations in thousands of scf	475,901,746	583,037,263	This metric provides gas distribution throughput reported under Subpart W, 40 C.F.R. 98.236(aa)(9)(i) through (iii), as reported on the Subpart W e-GRRT integrated reporting form in the "Facility Overview" worksheet Excel form, gas received (column 1) plus the gas withdrawn (column 2) minus the gas injected into storage (column 3). See screenshot of e-GRRT report provided in template instructions.	

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2.3	CO ₂ e Fugitive Methane Emissions Rate (metric tons per thousands scf of Throughput)	0.00122	0.00082	2.1 divided by 2.2	
2a Distribution Methane Fugitive Emissions - Additional Optional Metrics					
2a.1	Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	478,184	19,127	Fugitive methane emissions (not CO ₂ combustion emissions) stated as metric tons of methane, as reported to EPA under 40 CFR 98, Subpart W, sections 98.236(q)(3)(ix)(C) and (D), 98.236(r)(1)(iv) and (v), and 98.236(r)(2)(v)(A) and (B). This metric should include fugitive methane emissions above the reporting threshold for all natural gas local distribution companies (LDCs) held by the Parent Company that are above the LDC Facility reporting threshold for EPA's 40 C.F.R. 98, Subpart W reporting rule.	
2a.2	Natural Gas Throughput from Gas Distribution Operations in thousands of scf	583,037,263	583,037,263	This metric provides gas distribution throughput reported under Subpart W, 40 C.F.R. 98.236(aa)(9)(i) through (iii), as reported on the Subpart W e-GRRT integrated reporting form in the "Facility Overview" worksheet Excel form, gas received (column 1) plus the gas withdrawn (column 2) minus the gas injected into storage (column 3). See screenshot of e-GRRT report provided in template instructions.	
2a.3	Fugitive Methane Emissions Rate (thousand scf of Methane Emissions per thousand scf of Methane Throughput)	0.00082	0.00180	(Row 2a.1 divided by 0.0192 kg/scf [density of CH ₄]) / (Row 2a.2 times 0.95 [percent CH ₄ in natural gas])	
NATURAL GAS TRANSMISSION & STORAGE					
1 METHANE EMISSIONS					
1.1	Transmission Pipelines, Blow Down Volumes, and Fugitive Emissions				
1.1.1	Total Miles of Transmission Pipeline Operated by gas utility (miles)	2,162	2,162		
1.1.2	Volume of Transmission Pipeline Blow Down Emissions - outside storage and compression facilities:			As reported to EPA under 40 CFR 98, Subpart W.	Blow down emissions and throughputs are not reported to USEPA GHG Reporting under Subpart W for transmission pipeline.
1.1.2.1	scf natural gas	N/A	N/A		
1.1.2.2	metric tons CO ₂ e	N/A	N/A		
1.2	Underground Natural Gas Storage Emissions				
1.2.1	Storage Compressor Station Emissions (metric tons CO ₂ e)	N/A	1,831	As reported to EPA under 40 CFR 98, Subpart W. Total station minus wellhead emissions.	Total methane emissions as CO ₂ e in metric tons (MT) reported to US EPA under Subpart W for DTE Gas Company compressor stations subject to federal GHG reporting.
1.2.2	Storage Facility Wellhead Component Fugitive Emissions (metric tons of CO ₂ e)	N/A	0	Utilizing EPA emissions factors, as reported to EPA under Subpart W, 40 CFR 98.236, on the e-GRRT integrated reporting form, "Equipment Leaks Surveys and Population Counts [98.236 (q, r)]" tab.	
2 CO₂e EMISSIONS FOR TRANSMISSION AND STORAGE COMPRESSION					
2.1	CO ₂ e Emissions for Transmission Pipelines (metric tons)	103,113	80,029	CO ₂ combustion emissions as reported to EPA under 40 CFR 98, Subpart C and methane emissions stated as CO ₂ e as reported under Subpart W.	CO ₂ e emissions in metric tons (MT) = Total CO ₂ emissions from combustion reported under Subpart C + Total methane emissions as CO ₂ e reported under Subpart W for DTE Gas Company compressor stations subject to federal GHG reporting.

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2.2	CO ₂ e Emissions for Storage Facilities (metric tons)	N/A	33,416	CO ₂ combustion emissions as reported to EPA under 40 CFR 98, Subpart C and methane emissions stated as CO ₂ e as reported under Subpart W.	
3	CONVENTIONAL AIR EMISSIONS FROM TRANSMISSION AND STORAGE COMPRESSION				
3.1	Emissions reported for all permitted sources (minor or major)			The number of permitted sources for conventional emissions may not be the same number of sources reporting under the EPA GHG reporting rule. Companies may wish to describe which, or how many, sources are included in the conventional pollutants data and whether the CO ₂ e data reported includes all of these sources.	There are nine DTE Gas Company facilities subject to annual air emission inventory reporting to the State of Michigan. Only three of these nine facilities are subject to US EPA GHG reporting and included in the CO ₂ e data above.
3.1.1	NO _x (metric tons per year)	712	976		
3.1.2	VOC (metric tons per year)	63	55		
NATURAL GAS GATHERING & BOOSTING					
1	METHANE EMISSIONS				
1.1	Gathering and Boosting Pipelines, Blow Down Volumes, and Emissions				
1.1.1	Total Miles of Gathering Pipeline Operated by gas utility (miles)	397	378		Includes non-utility pipeline miles
1.1.2	Volume of Gathering Pipeline Blow Down Emissions (scf)	36,151,364	49,832,327	This metric is collected to support calculations under EPA 40 CFR 98, Subpart W.	
1.1.3	Gathering Pipeline Blow-Down Emissions outside storage and compression facilities (metric tons CO ₂ e)	16,875	22,480		
2	CO ₂ e COMBUSTION EMISSIONS FOR GATHERING & BOOSTING COMPRESSION				
2.1	CO ₂ e Emissions for Gathering & Boosting Compression Stations (metric tons)	N/A	N/A	CO ₂ combustion emissionsas reported to EPA under 40 CFR 98, Subpart C, as directed in Subpart W, 98.232(k).	DTE Gathering and Boosting facilities are not required to report under Subpart C, per 98.232(k).
3	CONVENTIONAL COMBUSTION EMISSIONS FROM GATHERING & BOOSTING COMPRESSION				
3.1	Emissions reported for all permitted sources (minor or major)			The number of permitted sources for conventional emissions may not be the same number of sources reporting under the EPA GHG reporting rule. Companies may wish to describe which, or how many, sources are included in the conventional pollutants data and whether the CO ₂ e data reported includes all of these sources.	Emissions are included only for the compressor stations that report annual emissions to the State of Pennsylvania.
3.1.1	NO _x (metric tons per year)	281	379		
3.1.2	VOC (metric tons per year)	36	39		