

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

DTE Energy (NYSE: DTE) is a diversified U.S. energy company with approximately \$12.7 billion in revenues for 2019. Our largest operating subsidiaries are DTE Electric Co., an electric utility, and DTE Gas Co., a natural gas utility. DTE Electric is a Michigan corporation organized in 1903 and is a public utility subject to regulation by the Michigan Public Service Commissions (MPSC) and the Federal Energy Regulatory Commission (FERC). DTE Electric is engaged in the generation, purchase, distribution and sale of electricity to approximately 2.2 million customers in southeastern Michigan. DTE Gas is a Michigan corporation organized in 1898 and is a public utility subject to regulation by the MPSC. DTE Gas is engaged in the purchase, storage, transmission, gathering, distribution and sale of natural gas to approximately 1.3 million customers throughout Michigan and the sale of storage and transportation capacity. Our other businesses are involved in 1) natural gas pipelines, gathering and storage; 2) power and industrial projects; and 3) energy marketing and trading operations. More information on DTE Energy can be found at [DTEenergy.com](https://dteenergy.com) and information on sustainability performance can be found at <https://empoweringmichigan.com/dte-impact/performance/>

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2019	December 31 2019	Yes	1 year

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-EU0.7

(C-EU0.7) Which part of the electric utilities value chain does your organization operate in? Select all that apply.

Row 1

Electric utilities value chain

Electricity generation
Distribution

Other divisions

Gas storage, transmission and distribution

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	Our President and CEO, together with other senior leaders of the company, exercise leadership in our sustainability initiatives. Through the Government Regulatory Committee, Force for Growth Committee and other leadership committees, DTE Energy's senior management: • Executes the company's Environmental, Social, and Governance (ESG) strategy in consultation with the Board of Directors • Manages our environmental compliance processes and carbon reduction aspirations • Mobilizes our employees, resources and partner organizations to strengthen and promote prosperity in our communities • Reports to Board of Directors on outcomes of ESG initiatives • Manages risks associated with environmental and sustainability opportunities • Receives compensation tied to achievement of company goals, including ESG targets An example of a decision made by our CEO related to climate: In September 2020, after a thorough review of feasibility options, our CEO recommended to the Board of Directors to announce a net zero by 2050 goal for DTE Electric generation.
Other, please specify (Lead Independent Director)	The Board continues to believe a good governance practice is to elect a Lead Independent Director. The Lead Independent Director will have such responsibilities as required under the NYSE listing standards, as well as such other responsibilities as determined by the Board, including approving the agenda for Board discussions of strategic issues (including climate-related issues) for the company.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	<ul style="list-style-type: none"> Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues 	<Not Applicable>	Climate-related issues impact all areas of DTE Energy's business and are therefore incorporated into the agenda at all Board meetings. Examples include obtaining approval from the Board for the company's 2050 carbon reduction goal announced in 2017 and updated in 2019, long-term strategies and action plans to meet these goals, risks associated with meeting or not meeting these goals, capital expenditures necessary to meet these goals, and setting milestone targets to track and measure progress towards these goals. The Public Policy and Responsibility Committee (PPRC) of the DTE Energy Board of Directors is responsible for reviewing and advising the Board on emerging social, economic, political, reputational and environmental issues that could significantly affect the Company's business and performance in relation to the community, shareholders, customers and employees. The PPRC's responsibilities and duties include direct responsibility for climate change issues that affect the Company. The Committee met 5 times in 2019. The PPRC's Charter is available on our website and includes the following statements on Membership & Authority: 1. The Committee shall be composed of three or more directors as determined by the Board of Directors. Committee members are appointed for one-year terms and can be re-appointed for additional terms. 2. The Committee has the authority to perform the duties listed in this Charter, as it determines to be necessary and advisable from time to time in its business judgment. 3. The Committee shall meet as necessary, but no fewer than three times a year. The Committee shall keep minutes or other records of its meetings. 4. The Committee has the authority to retain independent outside professional advisors or experts as it deems advisable or necessary, including the sole authority to retain and terminate any such advisors or experts, to carry out its duties. The Committee shall have sole authority to approve related fees and retention terms.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Other, please specify (Vice President Environmental)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Sustainability committee	<Not Applicable>	Managing climate-related risks and opportunities	<Not Applicable>	As important matters arise
Other, please specify (Force for Growth Committee)	<Not Applicable>	Managing climate-related risks and opportunities	<Not Applicable>	As important matters arise
Other committee, please specify (Government, Regulatory and Community Committee)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	As important matters arise
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The VP-Environmental reports directly to the President and COO and oversees the company's environmental operations. This responsibility is given to the VP-Environmental so that a high-level executive position has the main responsibility of overseeing environmental operations under the direction of C-suite officers. In managing our sustainability initiatives, the VP-Environmental:

- Represents the company on environmental issues with the public and in environmental regulatory and legislative development
- Coordinates environmental studies and conducts environmental audits
- Supervises a department of approximately 75 people

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) TEAM

The cross-functional ESG Team was formed to coordinate and execute the company's multiple streams of ESG disclosure. The ESG team has members from legal, corporate communications, human resources, investor relations, environmental compliance, public affairs, and the corporate secretary's office. The team is given the responsibility of coordinating ESG disclosures. The multiple disciplines and business units represented on the ESG team allow them to make climate-related recommendations and decisions that benefit the entire company. The ESG team:

- Evaluates potential ESG disclosure platforms and templates, and makes recommendations to management
- Reviews peer company disclosures for best practices
- Collects internal ESG data and drafts disclosure documents in consultation with relevant business units
- Incorporates input from management and board reviewers
- Meets at least monthly

SENIOR MANAGEMENT — GOVERNMENT, REGULATORY AND COMMUNITY (GRC) AND FORCE FOR GROWTH (FFG) COMMITTEES

Our President and CEO, together with other senior leaders of the company, exercise leadership in our sustainability initiatives through executive committees. The GRC and FFG committees include C-suite officers and other senior management as members. Through monthly meetings of the GRC, FFG, and other leadership committees, DTE Energy's senior management:

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

Senior management is given these responsibilities in order to provide high-level direction toward climate-related initiatives for the rest of the company.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target	Our CEO received 59% of his 2019 total compensation in contingent, performance-based incentives that are focused on meeting our system of corporate priorities, including our target to reduce carbon emissions. For our other named executive officers, the average percentage of contingent, performance-based compensation was 48%. • Our short-term and long-term performance metrics all tie directly to our system of priorities. These are the same metrics that management uses to assess the Company's progress toward our aspiration of becoming the best-operated energy company in North America and a force for growth and prosperity in the communities where we live and serve.
All employees	Monetary reward	Other (please specify) (Corporate Priority Scorecards)	The company utilizes scorecards as a means to measure progress towards meeting company goals. The scorecards are utilized to assess annual incentive awards at the business unit level for all employees. Examples of corporate level priorities related to climate change that were tracked on scorecards at the business unit level in 2019 included the following: 1. Reduce carbon emissions 21% below 2005 (on way to 80% reduction by 2050) 2. Achieve annual customer electricity savings of 1.5% 3. Achieve annual customer gas savings of 1.0% 4. Drive 25% energy, water and waste reduction from 2016 levels by 2022
All employees	Monetary reward	Other (please specify) (Alex Dow Award)	Alex Dow Award - The Alex Dow Award recognizes outstanding achievement related to the company's operation that is consistent with its responsibilities as an investor-owned utility and exemplifies DTE Energy's Core Values and incorporates the DTE Energy Operating System principles. Awards fall into the following categories: 1. Achievement or Innovation: An original achievement or innovation that has significant positive impact on corporate cost savings or increased revenues, gained outside recognition, and supports corporate strategies. 2. Emergency: An individual(s) taking extraordinary action in an emergency to prevent injury, loss of life, or damage to or loss of property. 3. Improved Operation: An outstanding individual(s) effort, beyond normal responsibilities, which significantly improved company-wide operations, greatly impacted the company's financial success and supported corporate strategies. 4. Human Relations: An outstanding, sustained individual effort that has had a significant impact on improving the quality of life in the Community or the Company. 5. Public Relations: An outstanding, sustained individual effort that has had a significant impact on improving the corporate service and awareness in the communities in which we serve 6. Above and Beyond: Exceptional, consistent, and sustained efforts to achieve business success that goes above and beyond and exceeds expectations. 7. Lifetime Achievement: Original achievements and innovations that have had a sustained impact on the corporation and gained outside recognition. The Alex Dow award is one of 3 established employee performance recognition programs. Although these programs do not specifically target management of climate change issues, recipients have been awarded this honor in the past who are instrumental in creating and sustaining many environmental initiatives.
All employees	Non-monetary reward	Other (please specify) (Sarah Sheridan Award)	Sarah Sheridan Award - The Sarah Sheridan award recognizes Customer Service and Customer Satisfaction efforts for our external and internal customers, and our community (including volunteerism). The Sarah Sheridan Award is one of 3 established employee performance recognition programs. Although these programs do not specifically target management of climate change issues, recipients have been rewarded for their work in climate change or related environmental issues.
All employees	Monetary reward	Other (please specify) (Walter J. McCarthy Award)	Walter J. McCarthy, Jr. Award - Through the Walter J. McCarthy Volunteer Leadership Individual Grant Program, the DTE Energy Foundation awards up to \$1,000 on behalf of its employees and retirees who volunteer personal time with eligible non-profit organizations in Michigan. The Walter J. McCarthy, Jr. Award is one of 3 established employee performance recognition programs. Although these programs do not specifically target management of climate change issues, recipients are often rewarded for their work in climate change or related environmental issues.
All employees	Monetary reward	Other (please specify) (Employee engagement to reduce emissions)	The EV Incentive program allowed eligible DTE Energy employees to receive a \$2,500 incentive for purchasing or leasing a new Electric Vehicle (EV) from May 1- September 30, 2019.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	5	Aligned with annual planning cycles and shorter term targets to reach performance goals.
Medium-term	5	15	Generally aligned with Integrated Resource Plan timeframe and other regulatory submittals and disclosures required by the Michigan Public Service Commission.
Long-term	15	30	Aligned with DTE Energy's goal to achieve net zero carbon emissions by 2050.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

DTE identifies issues that are material to its financial or strategic planning in required financial filings to the Securities and Exchange Commission (e.g. annual 10-K reports). SEC provides guidance on reporting material issues in financial statements in SEC Staff Accounting Bulletin No. 99, August 12, 1999. The Bulletin suggests that a mix of quantitative and qualitative information is necessary to evaluate the materiality of an aspect or issue. The definition of materiality extends to any financial and strategic impact that an investor would deem substantive, and DTE aims to maintain a reputation of sound risk assessment and management among its investors. For example, extreme weather conditions are identified as a risk in our 2019 10-K Annual Report, which we would consider a substantive financial or strategic impact if it caused damage to the electric distribution system infrastructure and power generation facilities. The 2019 Polar Vortex is an example of an event we would consider substantive; very cold-weather may impact normal daily operations or our facilities. Recovering from these setbacks would result in increased costs from unforeseen maintenance to our power generation facilities, therefore negatively impacting the financial performance of the company.

A brief explanation of the more significant risks associated with DTE Energy's businesses are provided in our 2019 Form 10-K annual report. Although we have tried to identify and discuss key risk factors, others could emerge in the future. Key risk factors related to climate change include the following:

- We are subject to rate regulation.
- Changes to Michigan's electric retail access program could negatively impact our financial performance.
- Our electric distribution system and our gas distribution system are subject to risks from their operation, which could reduce revenues, increase expenses, and have a material adverse effect on their business, financial position, and results of operations.
- DTE Energy's non-utility businesses may not perform to expectations
- Environmental laws and liability may be costly.
- Construction and capital improvements to our power facilities, distribution systems and its Gas Storage and Pipelines business subject us to risk.
- Operation of a nuclear facility subjects us to risk.
- The supply and/or price of energy commodities and/or related services may impact our financial results.
- The supply and/or price of other industrial raw and finished inputs and/or related services may impact our financial results
- Emerging technologies may have a material adverse effect.
- Our participation in energy trading markets subjects us to risk.
- Weather significantly affects operations.
- Unplanned power plant outages may be costly.
- Renewable portfolio standards and energy waste reduction may our business and federal and state fuel standards may affect DTE Energy's non-utility investments.
- Our ability to utilize production tax credits may be limited.
- Regional, national and international economic conditions can have an unfavorable impact on us.
- If DTE Energy's goodwill becomes impaired, it may be required to record a charge to earnings.
- We may not be fully covered by insurance.

Finally, long-range planning risks associated with the transition of DTE's generating fleet to less carbon-intensive technologies are addressed through the company's Integrated Resource Planning process. These risks include increasing pressure by investors and other stakeholders to conduct climate scenario analyses demonstrating the company's commitment to limiting global warming to less than 2-degrees C above pre-industrial levels.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term

Medium-term

Long-term

Description of process

Governance Process for Evaluating Which Risks and Opportunities Could Have a Substantive Financial or Strategic Impact: Each Board Committee is responsible for overseeing and considering risk issues relating to their respective Committee and reporting their assessments to the full Board at each regularly scheduled Board meeting. When granting authority to management, approving strategies and receiving management reports, the Board and Committees consider, among other things, the risks we face. The following committees review management's assessment of risk for that Committee's respective area of responsibility: Audit Committee Finance Committee Organization and Compensation Committee Corporate Governance Committee Nuclear Review Committee Public Policy and Responsibility Committee The charters for each of these committees are posted on the DTE Energy website. The Company also utilizes an internal Risk Management Committee, chaired by the Chairman, President and CEO and comprised of the Chief Financial Officer, Chief Risk Officer, General Counsel, General Auditor and other senior officers, that, among other things, directs the development and maintenance of comprehensive risk management policies and procedures, and sets, reviews and monitors risk limits on a regular basis for enterprise-level risks. The Company's Chief Risk Officer attends all Audit Committee meetings and meets annually with either the joint Audit Committee and Finance Committee or the full Board to update the members on the Company's enterprise-level risk management. The Chief Risk Officer also periodically meets with the other Board Committees and the full Board as may be required. These periodic meetings allow for two-way exchange of company and asset related risk, either from the business unit level that has identified an asset related risk, or from the Board Committee that may have a generally identified risk that could impact assets. The Public Policy and Responsibility Committee (PPRC) of the DTE Energy Board of Directors is responsible for addressing climate change issues that affect the Company. The PPRC Committee met 5 times in 2019. The Board receives, reviews and assesses reports from the Board Committees and from management relating to enterprise-level risks, including climate risks. DTE Energy's long-term planning, including management of climate-related risk, is guided by our commitment to reduce carbon emissions to net zero by 2050. Climate-related issues impact all areas of DTE Energy's business and are therefore incorporated into the agenda at all Board meetings. Case Study 1: in response to transitional risk identified in C2.3, our CEO recognized the need to go beyond our carbon reduction goals outlined in the March 2019 Integrated Resource Plan and obtained approval from the Board for DTE Electric's updated net zero goal announced in September 2019. This goal requires the development of strategies and action plans to meet these goals in the short, medium and long-term horizons, risks associated with meeting or not meeting these goals, potential capital expenditures necessary to meet these goals, and setting milestone targets to track and measure progress towards these goals. These goals require an evaluation of risk to meet the following short, medium and long-term carbon reduction goals: 32 percent below 2005 by 2023 50 percent below 2005 by 2030 80 percent below 2005 by 2040 Net zero by 2050 Case Study 2: DTE is working to build a 21st century grid that meets the customer needs of tomorrow, and that will help to minimize the impacts from increased physical risks due to climate change such as ice storms, tornadoes, or high winds, as well as building a grid that accommodates the needs of an increasingly decarbonized electricity sector. In response to an order from the Michigan Public Service Commission, DTE Electric developed a Distribution Operations Five-Year (2018-2022) Investment and Maintenance Plan in 2018 that provides a detailed summary of the current state of DTE's distribution infrastructure and the needs of the future. DTE has planned, approved and disclosed in the 2019 10K that DTE Electric's capital investments over the short-term 2020-2024 period are estimated at \$5.0 billion for distribution infrastructure. These investments will include infrastructure resilience and hardening to help minimize the impacts from increased physical risks due to climate change; infrastructure redesign to increase system capacity (which will accommodate demand growth due to electrification); and technology and automation including smart meters and technologies to incorporate distributed energy resources such as rooftop solar.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	An example of assessed current regulations are the U.S. EPA rules under the Clean Air Act that impose limits on air emissions, including greenhouse gases. U.S. EPA rules under the Clean Air Act requiring carbon performance standards for new and existing electric generating unit (EGU) sources of greenhouse gases under Sections 111(b) and 111(d) of the Clean Air Act were finalized in 2015. The 111(d) rule for existing sources, also known as the Clean Power Plan, was repealed in June 2019 and replaced with the Affordable Clean Energy Rule. Though now repealed, DTE Energy was able to assess this risk by engaging extensively with U.S. EPA on influencing a final rule for the Clean Power Plan that was reasonable and affordable for the electric power industry. DTE also assessed this regulation-related risk by determining how the Clean Power Plan, as proposed, could impact the reliability of the nation's electric grid; our CEO Gerry Anderson spoke on behalf of DTE and EEI on this topic in 2015. Our CEO (now Chairman) continues to influence the industry on climate related issues through his role as EEI Vice Chairman. Regulation pertaining to renewable energy and/or clean energy requirements is also considered. In late 2016, Michigan passed legislation requiring electricity providers to meet a 12.5% renewable portfolio standard by 2019 and 15% by 2021 and an energy optimization goal of meeting at least 35% of the State's electric needs through energy waste reduction and renewable energy by 2025. The Michigan energy legislation also requires periodic submittal of an Integrated Resource Plan (IRP) to the Michigan Public Service Commission. DTE Electric submitted its IRP in March 2019 which included an accelerated carbon reduction goal of 80% reduction from 2005 levels by 2040 and a 50% reduction by 2030. These goals exceed the requirements of the recently repealed Clean Power Plan.
Emerging regulation	Relevant, always included	Uncertainty around future environmental regulations creates difficulty planning long-term capital projects in our generation fleet and gas distribution businesses. These laws and regulations require us to seek a variety of environmental licenses, permits, inspections and other regulatory approvals. An example of a potential emerging regulation is the requirement to install expensive pollution control measures or limit or cease activities, including the retirement of certain generating plants, based on the outcome of future regulations. In addition, emerging state or local legislative and /or ballot initiatives focused on clean energy and reducing carbon emissions are considered in climate risk assessments.
Technology	Relevant, sometimes included	An example of key technology uncertainties that impact future planning risks is feasibility and cost of energy storage technologies. Utility-scale energy storage technologies (e.g. batteries) to store energy from intermittent renewable generation, which are currently not feasible for wide-scale deployment across our service territory. However, if costs of utility-scale storage decrease significantly, long-term generation planning could be impacted. Other technologies being considered to help us reach our net zero goals and which will require a risk assessment include carbon capture and storage, modular nuclear reactors, and alternative fuels such as renewable natural gas or hydrogen.
Legal	Relevant, always included	An example of a legal risk considered in climate-related risk assessments is the initiation of enforcement actions against DTE Electric Co. by the EPA and environmental groups alleging, among other things, that five DTE Electric power plants violated New Source Performance standards, Prevention of Significant Deterioration requirements, and operating permit requirements under the Clean Air Act. DTE Electric could be required to install additional pollution control equipment at some or all of the power plants in question, implement early retirement of facilities where control equipment is not economical, engage in supplemental environmental programs, and/or pay fines. While the litigation described above is being resolved in 2020, the company considers the above possible actions in its climate-related risk assessments.
Market	Relevant, sometimes included	An example of an assessed potential market risk is a carbon emission trading or similar program that could be required by future legislation or regulations, placing a price on the direct emissions of carbon. This could potentially impact the affordability of electricity to our customers.
Reputation	Relevant, always included	DTE Energy's aspiration is 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. We are guided by our company's purpose, values and system of priorities to support our journey towards our aspiration. Risks that detract from achieving our aspiration would be considered reputational risks. An example of a reputational risk is repeated outages and reliability impacts from severe weather events. In January 2018, DTE Electric filed with the MPSC its five-year distribution operations investment and maintenance plan to improve system reliability. DTE Electric plans to seek regulatory approval for capital expenditures of \$4.6 billion for distribution infrastructure over the 2019-2023 period consistent with prior ratemaking treatment.
Acute physical	Relevant, always included	An example of acute physical risk is the increased frequency of severe storm events (e.g. severe thunderstorms, tornadoes, wind storms, and ice storms), which have an impact on the electrical transmission and distribution system infrastructure (e.g. poles and wires). DTE has a robust Storm Emergency Plan that is put into action during storm emergencies and reviewed for improvement in after action reviews following each storm.
Chronic physical	Relevant, sometimes included	An example of chronic physical risk is decreases or increases in Great Lakes water levels due to changes in precipitation and evaporation patterns, which could have a negative impact on the ability to utilize water for electric generation cooling purposes or in transporting fuel and other raw materials to our plants via water vessels. Warmer average summer and winter temperatures could potentially impact seasonal demand for electricity and natural gas.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Mandates on and regulation of existing products and services
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Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Pending or future legislation or other regulatory actions could have a material impact on DTE Electric's operations and financial position and the rates charged to its customers. Impacts include expenditures for environmental equipment beyond what is currently planned, financing costs related to additional capital expenditures, the purchase of emission credits from market sources, higher costs of purchased power, and the retirement of facilities where control equipment is not economical. DTE Electric would seek to recover these incremental costs through increased rates charged to its utility customers, as authorized by the MPSC. Increased costs for energy produced from traditional coal-based sources due to recent, pending, and future regulatory initiatives, could also increase the economic viability of energy produced from renewable, natural gas fueled generation, and/or nuclear sources, energy waste reduction initiatives, and the potential development of market-based trading of carbon instruments which could provide new business opportunities for DTE Energy's utility and nonutility segments. At the present time, it is not possible to quantify the financial impacts of these climate related regulatory initiatives on the DTE Energy or its customers. In June 2019, EPA finalized the Affordable Clean Energy (ACE) Rule to regulate emissions of carbon dioxide from existing coal-fired power plants. The ACE Rule will impact at least two DTE Energy coal plants that will be operating beyond 2022 when the State of Michigan is required to submit its implementation plan to EPA. DTE has assembled a team to assess the emission reductions and energy efficiency opportunities that may be achieved at the emission units subject to the ACE Rule. DTE is also working with the Michigan Department of Environmental, Great Lakes and Energy (EGLE) to

develop emission standards for units subject to the ACE Rule, based on the results of the company's assessment.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The Company cannot predict the financial impact of this risk at this time.

Cost of response to risk

0

Description of response and explanation of cost calculation

We manage these risks through the Board Committee structure described in our response to Question C1.1 and through our established long-term planning processes. We are actively involved in shaping and influencing proposed regulations at both the state and federal level through our involvement with industry groups. We advocate for environmental policy that proceeds in a manner that can be absorbed financially by our customer base.

Comment

No additional cost of management - these costs are integrated into existing budgets.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Technology	Transitioning to lower emissions technology
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Primary potential financial impact

Increased capital expenditures

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

We manage these risks through the Board Committee structure described in our response to Question C1.1 and through our established long-term planning processes, including the Integrated Resource Planning (IRP) process that is managed by the Michigan Public Service Commission (MPSC). We must seek approval from the MPSC for electric rate increases to support the capital costs of transitioning to a lower carbon supply of electricity.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

3800000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

DTE's recently filed IRP indicates that the cost to transition to lower carbon emitting sources of generation, including renewables, a natural gas plant, and upgrades to a pumped storage hydroelectric facility will be around \$3.8 billion over the next 5 years. In the IRP, DTE evaluated numerous resource options to determine the recommended combination of supply-side and demand-side options. DTE performed robust scenario and sensitivity analyses, considering the uncertainty around environmental regulations, resource cost and performance, fuel prices, load, and other regulatory and legislative effects. In addition to scenario and sensitivity analysis, the Company conducted four additional risk analyses. The Company's proposed course of action focuses on the next five years (2020–2024) and considers the most affordable and reliable mix of supply-side and demand-side resources available today. PROVIDE INFO ON WHERE THESE NUMBERS CAME FROM.

Cost of response to risk

0

Description of response and explanation of cost calculation

Actions being implemented to manage this risk include investing in technology and infrastructure with approval by the MPSC. The MPSC approved a \$273.3 million rate increase for DTE Energy in 2019 based upon the initial request of \$476.6 million in July of 2018. An example of technology investments include \$195 million of capital investments into its distribution system. This MPSC-approved DTE Electric rate increase results in increased electric bills of residential customers by nearly 9%. Furthermore, DTE is investing \$1 billion in a natural gas plant, which will be the most efficient power plant in the state producing affordable and reliable low-emission electricity for 850,000 homes beginning in 2022. This was approved by the MPSC in early 2018. When it begins operations in 2022, Blue Water Energy Center will represent DTE's single largest step in reducing carbon emissions to date.

Comment

No additional cost of management - these costs are integrated into existing budgets.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Market	Increased cost of raw materials
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Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Our mid and long-term planning relies on replacement of our retiring coal generation with natural gas and renewable energy. This includes a reliable and affordable supply of natural gas. Volatility in natural gas prices present a risk to the viability of future natural gas generation as part of a generation portfolio to meet carbon reduction goals.

Time horizon

Medium-term

Likelihood

Unlikely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The Company cannot predict the financial impact of this risk at this time.

Cost of response to risk

0

Description of response and explanation of cost calculation

The cost of fuel that we charge customers is managed through a Power Supply Cost Recovery mechanism authorized by the Michigan Public Service Commission that allows DTE Electric to recover through rates its fuel, fuel-related, purchased power costs. Changes in fuel prices, including gas price volatility, would be managed through this program. An action being implemented to mitigate this risk is DTE's diverse portfolio and investment in renewable energy infrastructure. For example, DTE Electric Company and Consumers Energy Company are applying for license renewal of the Ludington Pumped Storage Project. This extends its commitment in hydropower as an alternative energy source that is not dependent upon fuel, and therefore would not be affected by the increased cost of raw materials. DTE also invests in wind and solar renewable energy infrastructure to offset this potential risk. Renewable energy allows DTE to provide reliable energy to its customers with a decreased risk of cost increase due to fuel prices.

Comment

No additional cost of management - these costs are integrated into existing budgets.

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Reputation	Increased stakeholder concern or negative stakeholder feedback
------------	--

Primary potential financial impact

Other, please specify (Reduction in price of DTE shares due to market reaction)

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Incorrect or negative perceptions of the company's approach to addressing climate change may lead to shareholder resolutions requesting additional action from the company.

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The estimated financial implications would vary depending on the scope of a proposed shareholder resolution. We cannot predict the financial impact of this risk at this time.

Cost of response to risk

0

Description of response and explanation of cost calculation

An action being implemented is the Company's active communication with its shareholders about a broad range of topics through published sustainability reports. For example, DTE voluntarily publishes an annual Environmental, Social, Governance, and Sustainability (ESG) Report. This includes the EEI/AGA Template that allows investors to compare environmental impacts and initiatives across companies within the electric utility and natural gas industries. Furthermore, DTE publishes an annual Corporate Citizenship Global Reporting Initiative (GRI) Report that is indexed to the GRI standards. We respond to ESG stakeholder requests for information such as the CDP Carbon and CDP Water questionnaires. Our shareholder engagement efforts have generated valuable feedback related to renewable energy and sustainability, and we will continue to seek input from our shareholders around these issues.

Comment

We do not expect this risk to require an additional cost of management - these costs are integrated into existing budgets.

Identifier

Risk 5

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Increased severity and frequency of extreme weather events such as cyclones and floods
----------------	--

Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Ice storms, wind storms, severe thunderstorms and tornadoes can damage the electric distribution system infrastructure and require us to perform emergency repairs and incur material unplanned expenses. The expenses of storm restoration efforts may not be fully recoverable through the regulatory process. The biggest financial implications associated with the identified risks are the severe weather events for which DTE Electric Co. already has an existing budgeting and planning process in place to manage.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

500000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

DTE Electric's capital investments over the 2020-2024 period are estimated at \$5 billion for distribution infrastructure which will strengthen the reliability and resiliency of the electric distribution infrastructure. The approach to developing the infrastructure upgrade costs is explained in a five year distribution operations investment and maintenance plan to improve system reliability that DTE Electric filed with the Michigan Public Service Commission (MPSC) in January 2018. DTE Electric is required to update this plan on a regular basis and will seek regulatory approval for capital expenditures consistent with prior ratemaking treatment.

Cost of response to risk

0

Description of response and explanation of cost calculation

DTE Electric maintains a storm emergency and readiness center that is put into action when severe weather causes sudden increases in customer outages. The unpredictability of severe weather events makes it difficult to quantify the potential incremental cost of this risk that would be attributed to climate change. We don't expect physical risks from climate change to impact the company's storm emergency planning process in a way that would impact our normal long-range planning process. We cannot predict whether long term changes in frequency of severe weather events due to climate change will have more of an impact on the electric distribution infrastructure than normal year to year variations in severe weather events.

Comment

No additional cost of management - these costs are integrated into existing budgets.

Identifier

Risk 6

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical	Rising mean temperatures
------------------	--------------------------

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Year to year deviations from normal hot and cold weather conditions affect our earnings and cash flow. Warmer than normal winters reduce the need for natural gas for heating, resulting in lower gas sales to retail customers by DTE Gas. However, higher than normal summer temperatures increase electricity demand for residential and commercial air conditioning, and potentially increase peak demand days for DTE Electric.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

We cannot predict whether long-term trends in average temperatures due to climate change will have more of an impact on the demand for electricity or natural gas than year to year variations from normal temperatures. We cannot predict the financial impacts of this risk at this time.

Cost of response to risk

0

Description of response and explanation of cost calculation

We don't expect physical risks from climate change to impact the company in a way that would impact our normal long-range planning process. Meeting customer demand for our products is part of our normal operational planning. We do not see any change as a result of increased temperatures impacting this process.

Comment

No additional cost of management - these costs are integrated into existing budgets.

Identifier

Risk 7

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical	Other, please specify (Fluctuating Great Lakes water levels)
------------------	--

Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Decreases or increases in Great Lakes water levels due to changes in precipitation and evaporation patterns could have a negative impact on the ability to utilize water for electric generation cooling purposes or in transporting fuel and other raw materials to our plants via water vessels.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Financial implications of Great Lakes water level changes could include capital costs to change cooling water intake structures and equipment, and costs to modify existing vessel unloading facilities. A longer shipping season on the Great Lakes due to warmer lake temperatures could have beneficial financial impacts due to a longer season for shipping coal and other commodities transported by ship. We cannot predict the financial impact of Great Lakes water level changes at this time.

Cost of response to risk

0

Description of response and explanation of cost calculation

We don't expect physical risks from climate change to impact the company in a way that would impact our normal long-range planning process. Over the past 100 years, Lake Erie and Lake Huron levels have fluctuated by almost 2 meters from highest levels to lowest levels. The company has planned around these fluctuations in the past and is not actively planning to manage or adapt to changes in Great Lakes water levels as a result of climate change.

Comment

No additional cost of management - these costs are integrated into existing budgets.

C2.4**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

C2.4a**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.****Identifier**

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Returns on investment in low-emission technology

Company-specific description

Opportunities to invest in low emissions (renewable and natural gas) generation to replace retiring coal-fired units. DTE Electric's capital investments over the 2020-2024 period are estimated at \$3.0 billion for new generation. DTE Electric has retired five coal-fired generation units at the Trenton Channel, River Rouge, and St. Clair facilities and has announced plans to retire its remaining twelve coal-fired generating units. Six of these coal-fired generating units will be retired through 2022 at the Trenton Channel, River Rouge, and St. Clair facilities. The remaining coal-fired generating units at the Belle River and Monroe facilities are expected to be retired by 2040. The retired facilities will be replaced with renewables, energy waste reduction, demand response, and natural gas fueled generation. In April 2018, DTE Electric received approval from the MPSC to build a natural gas fueled combined cycle generation facility to provide approximately 1,100 megawatts of energy beginning in 2022. In August 2018, DTE Electric began construction on its natural gas fueled combined cycle generation facility. In March 2018, DTE Electric filed its 2018 Renewable Energy Plan with the MPSC proposing approximately 1,000 additional megawatts of energy from new wind and solar projects to be completed by 2022. The MPSC had previously approved 300 of the 1,000 additional megawatts for wind projects in an MPSC order received in September 2016. In its March 2020 Renewable Energy Plan, DTE noted it will bring an additional 353 MW of wind and solar projects online in 2022. DTE Electric plans to seek regulatory approval for capital expenditures consistent with prior ratemaking

treatment. These opportunities are driven by DTE Energy's goal to reduce carbon emission 80 percent from 2005 levels by 2040 as committed to in the March 2019 Integrated Resource Plan submitted to the Michigan Public Service Commission.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

65000000

Potential financial impact figure – maximum (currency)

188300000

Explanation of financial impact figure

The Michigan Public Service Commission issued an order in DTE Electric's rate case on April 19, 2018 that authorized DTE Electric to raise base rates by \$65 million annually and approved a return on equity of 10% for the company's capital investment of more than more than \$1.1 billion since the last general rate case to replace aging distribution system infrastructure and to invest in the Company's long-term generation assets, lower sales, inflation and working capital increases due primarily to changes in retiree benefit costs. On May 8, 2020, MPSC approved a \$188.3 million rate increase for DTE Electric. The new funding includes investments that will help DTE improve electric reliability, support Michigan jobs, reduce carbon emissions and provide needed upgrades at the Ludington Pumped Storage Power Plant. To help meet its carbon emissions reduction commitments, DTE is retiring three coal power plants in two years. These plants represent about 20% of the generating capacity used to serve the peak energy needs of DTE customers. A portion of the May 2020 order approved in the Commission's decision will support continued reliability and emissions reductions as DTE transforms its generation resources through these plants retirements. A breakdown of the financial impacts related to the investment in lower emitting generation is not available.

Cost to realize opportunity

3000000000

Strategy to realize opportunity and explanation of cost calculation

DTE Electric's capital investments over the 2020-2024 period are estimated at \$3.0 billion for new generation. In April 2018, DTE Electric received approval from the MPSC to build a natural gas fueled combined cycle generation facility to provide approximately 1,100 megawatts of energy beginning in 2022. In March 2018, DTE Electric filed its 2018 Renewable Energy Plan with the MPSC proposing approximately 1,000 additional megawatts of energy from new wind and solar projects to be completed by 2022. DTE plans to purchase three new wind parks, two of which will be the largest clean energy projects in the state. The MPSC had previously approved 300 of the 1,000 additional megawatts for wind projects in an MPSC order received in September 2016. In its March 2020 Renewable Energy Plan, DTE noted it will bring an additional 353 MW of wind and solar projects online in 2022.

Comment

Our path to net zero carbon emissions is described at: <https://dtecleanenergy.com>. In additions, DTE Electric's 2019 Integrated Resource Plan summary describes the Company's strategy and plan to transition to a lower carbon emitting generation fleet and to meet a carbon reduction goal of 80 percent below 2005 levels by 2040. The IRP Summary is available on our website: https://geg2a4cqqdz35Inem46az2tb-wpengine.netdna-ssl.com/wp-content/uploads/2019/03/IRP_Summary.pdf.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Increased customer participation in voluntary green power programs. Customers may opt-in to programs that allow them to buy all or part of their energy from renewable energy sources. DTE Energy currently offers the following voluntary green power programs to customers: 1) Introduced in 2017, 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 percent. MIGreenPower is available to business owners, homeowners or renters to help them go green easily and affordably, without installing special equipment or making exterior alterations. Participating customers, who now number more than 13,000, see a slight increase in their monthly bill while supporting Michigan's clean energy future. DTE Electric's 2019 Integrated Resource Plan committed us to an expansion of our MIGreenPower program to our large business and industrial customers. We're expanding this voluntary initiative to meet the needs of our largest business and industrial customers who are working to meet their own sustainability goals, enabling them to invest in renewable energy. The program is designed to grow and represents a progressive approach to fill market demand. In fact, we've already partnered with Ford and GM to provide renewable energy to support their sustainability goals. Ford has committed to procuring 500,000 MW hours annually of wind energy to power several of its Michigan facilities, including the plant that makes its popular F-150 truck. GM has partnered with DTE to procure 800,000 MW hours annually of wind energy to power 100 percent of GM's DTE-supplied facilities in southeast Michigan with wind or solar energy by 2023. DTE plans to actively market up to 715 MW of voluntary renewable energy programs in the next 5 years. MIGreenPower is Green-e Energy certified for businesses and for residential customers who subscribe at or above 25 percent, and meets the environmental and consumer protection standards set forth by the non-profit Center for Resource Solutions. 2) BioGreenGas is a voluntary residential program for DTE Gas customers which supports the local development of renewable natural gas by using the methane that arises naturally from landfills.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The voluntary green power program and associated tariff are designed to grow with customer demand in phases. New assets will be added to ensure the program grows with our customers' needs. Initial program assets will be approved through the existing REP contract-approval process, ensuring fairness and cost competitiveness. Understanding that it would not be prudent to bring on excess resources without adequate demand, DTE aims to manage both forecasted demand and renewable energy construction timelines to ensure that there is no extended gap in program availability to new subscribers. The build plan is designed to be flexible and accommodate growing demand over time for DTE's voluntary green power programs.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

The MIGreenPower and BioGreenGas programs are managed through established marketing and billing programs. Launched in April 2017, the MIGreenPower program provides interested customers with an easy and affordable way to reduce their carbon footprint by increasing the percentage of their energy usage that is attributed to DTE's newest renewable projects. Customers who subscribe to MIGreenPower can elect to increase the amount of renewable energy they use in 5 percent increments, up to 100 percent. DTE Gas Customers may elect to pay a premium of \$2.50 per month to support the development and advance the utilization of natural gas generated from biogas resources.

Comment

The company cannot share the cost of these programs at this time.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Reduced direct costs

Company-specific description

DTE previously committed to increasing energy efficiency at a level equivalent to 1.5 percent of sales annually. Our efforts already have resulted in nearly 700 MW annually (equivalent to the capacity of one large power plant) of reduced energy demand since 2009 when energy efficiency requirements from Michigan Energy legislation went into effect. Improving energy efficiency also results in lower bills for customers; for every dollar invested in energy efficiency, customers save \$5. In DTE's 2019 Integrated Resource Plan we committed to a 1.75 percent annual reduction in energy usage through energy efficiency, and in April 2020 regulators asked DTE to reach annual energy savings goals of 1.75 percent in 2020 and 2 percent in 2021. Improving energy efficiency will reduce our carbon emissions even further – meaning we need to generate less energy and reduces the need for investment in new generation. The expansion of those programs also will mean more jobs and business for the Michigan firms that support them. DTE also is a leader in demand response, rewarding residential and business customers who reduce or shift electricity usage during peak periods. We offer our customers the opportunity to reduce their energy use and lower their bills through multiple programs. Our demand-response program is in the top 25 percent nationwide and is the largest in Michigan, with more than 700 MW of program capacity.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

586800000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Lifecycle Dollar Savings: This represents the dollar savings resulting from the current and future energy costs avoided as a result of an energy efficiency action over the effective life of that action. The lifecycle dollar savings are based on verified net savings, which have been adjusted for free riders. Lifecycle dollar savings are presented as the present value of those savings.

Cost to realize opportunity

138000000

Strategy to realize opportunity and explanation of cost calculation

DTE Energy EWR programs are funded through surcharges on customer energy bills that are approved by the Michigan Public Service commission. In 2019, DTE Electric raised \$103.8 million in surcharge revenue and spent \$108.5 million compared to the planned \$105.2 million on Energy Waste Reduction (EWR) programs, w DTE Gas raised \$27.4 million in surcharge revenue and spent \$29.5 million compared to the planned \$26.5 million on EWR programs. The total spent on EWR programs in 2019 to realize this opportunity is \$138 million.

Comment

The annual results of DTE Energy's electric and gas energy waste reduction (EWR or efficiency) programs, including lifecycle savings, annual revenue, and annual spend are submitted annually to the Michigan Public Service Commission.

Identifier

Opp4

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Renewable Gas Recovery — Power and Industrial Projects has ownership interests in, and operates, twenty-four gas recovery sites in nine different states. The sites recover methane from landfills and agricultural businesses and convert the gas to generate electricity, replace fossil fuels in industrial and manufacturing operations, or refine to pipeline-quality gas, which can then be used as vehicle fuel.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

We cannot disclose a financial impact figure related to renewable gas recovery activities by DTE power and industrial project operations.

Cost to realize opportunity

1000000000

Strategy to realize opportunity and explanation of cost calculation

Power and Industrial Projects will continue leveraging its energy-related operating experience and project management capability to develop and grow its varied business lines, including renewable energy businesses. Power and Industrial Projects anticipates building around its core strengths in the markets where it operates. In determining the markets in which to compete, Power and Industrial Projects examines closely the regulatory and competitive environment, new and pending legislation, the number of competitors, and its ability to achieve sustainable margins. Power and Industrial Projects plans to maximize the effectiveness of its related businesses as it expands. Power and Industrial Projects intends to focus on the following areas for growth: • Providing energy and utility-type services to commercial and industrial customers • Acquiring and developing renewable energy projects and other energy projects. Power and Industrial Projects' capital investments over the 2020-2024 period are estimated at \$1.0 billion to \$1.4 billion for industrial energy services and RNG projects.

Comment

DTE Biomass Energy (DTEBE) partners with landfill owners and dairy farmers across the country to produce marketable, renewable transportation fuel by extracting and utilizing landfill and agricultural waste gas. The gas produced by DTEBE is sold to off-takers along with its low carbon attributes for use as low carbon transportation fuel. In 2019, DTE generated more than 22,800 metric tons of California Low Carbon Fuel Standard (LCFS) credits and more than 22 million CNG gallons of renewable fuels recorded under the U.S. Renewable Fuel Standard program as Renewable Identification Numbers (RIN).

Identifier

Opp5

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

DTE Electric has completed the issuance of approximately \$1.2 billion of green bonds. In 2018, DTE Electric issued \$525 million of Green Bonds to finance new and existing "Eligible Green Expenditures," which include renewable energy infrastructure and energy efficiency initiatives. DTE Electric's Green Bond issue was the first by an investment-grade energy company in Michigan and the fifth nationwide by an investment-grade energy company. In 2019, DTE Electric completed a second issuance of \$650 million of Green Bonds. An investment tool, bonds are referred to as "Green Bonds" when the proceeds are earmarked for environmental or "green" projects or programs.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The inaugural offering of DTE Energy Green Bonds was \$525 million in 2018, followed by a second offering of \$650 million in February 2019.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

Green bonds will help finance our low-carbon investments, which will enable us to continue moving Michigan toward a cleaner, more sustainable energy future. This is a tangible way for investors to demonstrate their commitment to the environment, and is one of many steps in our aggressive plan to reduce carbon emissions by more than 80 percent by 2050. DTE is among the first energy companies to offer this green investment option DTE utilized an investment bank to help structure and launch the green bond offering. The cost to realize the Green Bond activity cannot be disclosed at this time.

Comment

Identifier

Opp5

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

In June, 2019 DTE announced the launch of its Charging Forward program to drive electric vehicle education, infrastructure and adoption. Adoption of electric vehicles (EVs) and deployment of charging infrastructure in Michigan lags that of other states. This inhibits the benefits EVs can provide to DTE customers, the grid, and Michigan Charging Forward will help to realize the following universal benefits through distinct but complementary program components: •Improved load factor and system efficiency through at home off peak charging •Downward pressure on rates by spreading utility fixed costs over a greater volume of sales •Minimize distribution system impact by partnering with site hosts for capacity conscious deployment Charging Forward and its three primary components were approved by Michigan regulators on May 2, 2019. The three original components included Customer Education & Outreach, Residential Smart Charger Support, and Charging Infrastructure Enablement for a total of \$13.1 million. DTE meets bi-annually with stakeholders and based on feedback, three additional program components have been folded into Charging Forward activities: an EV-Grid Impact Study, an EV-Ready Builder Rebate pilot, and a residential off-peak charging pilot (Bring Your Own Charger). The overall Charging Forward program now totals \$14.2 million.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

We cannot disclose a financial impact figure related to the adoption of electric vehicles by our customers and the Charging Forward program.

Cost to realize opportunity

14200000

Strategy to realize opportunity and explanation of cost calculation

The strategy consists of three components: 1. Customer Education and Outreach - Increase EV awareness, engage current EV drivers, and inform/recruit potential site hosts 2. Residential Smart Charger Support - Provide up to \$500 rebates to support installation of approximately 2,600 smart chargers 3. Charging Infrastructure Enablement - Utilize a make-ready model to support the deployment of approximately 65 DC fast chargers with a rebate of \$20,000 per charger and approximately 1,000 Level 2 ports with a rebate of \$2,500 per port. Also, support charging infrastructure for electrified fleets.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization’s strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative

C3.1b

(C3.1b) Provide details of your organization’s use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
Other, please specify (Climate scenarios to support integrated resource plan (IRP))	Case Study: We use forward-looking scenario analyses to support DTE Electric’s integrated resource plan (IRP) efforts that were submitted to the Michigan Public Service Commission in March 2019. These scenarios also assess the feasibility of reducing emissions from DTE Energy 80% by 2040. These scenarios describe achievable pathways for meeting carbon reduction targets that are aligned with a multitude of pathways that the scientific community has identified as capable of limiting global warming to less than 2-degrees C above pre-industrial levels. This plan is also consistent with the Paris Accord to address climate change. The IRP proposes a flexible Proposed Course of Action (PCA); one that is short-term focused, with defined resources for the next five years, 2020 – 2024 (or until the Company files its next IRP), and flexible pathways for years 2025 – 2040. The PCA meets DTE Electric’s commitment to 50 percent clean energy by 2030 and to reduce carbon emissions by more than 80 percent by 2040, an acceleration by a decade of our previous 2050 goal. The defined resource components of the PCA for 2020-2024 include adding solar and wind generation, ramping up our voluntary green power programs for customers, retiring coal plants, building a new gas combined cycle plant, committing to increased energy efficiency programs by our customers, and increasing demand response programs. Approval of the IRP by the MPSC lays the groundwork for DTE to seek regulatory recovery of the costs to deploy these generation resources by seeking approval from the MPSC for electric rate increases. We have not followed prescribed methods for conducting climate scenario analyses. Marketed approaches for conducting climate scenario analyses (e.g. SBTi, Ceres, UNEP FI Pilot) have limited considerations of uncertainty with regards to pathways that are consistent with limiting warming to 2-degrees C. In addition, these approaches do not consider uncertainty in climate policy design that would drive countries, regions and/or sectors to implement mandatory carbon reduction programs. Company flexibility in GHG reduction levels is constrained or not considered in these approaches as well. Flexibility that allows coordination within or across sectors or an entire economy provides opportunities for more cost-effective solutions to society. For more information on the limitations of these approaches, please see: Rose, SK, M Scott, 2018. Grounding Decisions: A Scientific Foundation for Companies Considering Global Climate Scenarios and Greenhouse Gas Goals. EPRI, Palo Alto, CA. 3002014510. Available at: https://www.epri.com/#/pages/product/000000003002014510/?lang=en-US

C3.1d

(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	DTE Electric and DTE Gas are providing energy waste reduction services to customers in accordance with Michigan legislation and Michigan regulators required DTE Electric in April 2020 to increase its commitment to increase energy efficiency to 1.75 percent of annual sales in 2020 and 2 percent in 2021. We have also developed voluntary renewable energy programs for both DTE Electric and DTE Gas that customers may subscribe to in helping to meet customer's own renewable energy goals. DTE Power and Industrial Projects has ownership interests in, and operates twenty-three gas recovery sites in nine different states. The sites recover methane from landfills and agricultural businesses and convert the gas to generate electricity, replace fossil fuels in industrial and manufacturing operations, or refine to pipeline-quality gas, which can then be used as vehicle fuel. Climate related risks are driving the transition of DTE Electric's generation fleet to cleaner alternatives and are moving DTE's gas operations to consider cleaner alternatives for supplying gas to our customers. These have a high impact on the types of products and services that we provide to our customers.
Supply chain and/or value chain	Yes	DTE is part of the Electric Utility Industry Sustainable Supply Chain Alliance (EUISSCA), an organization of utilities and suppliers collaborating to advance sustainability best practices in supply chain activities and supplier networks. The Company uses The Sustainability Project (TSP) supplier survey tool, which was launched in 2018, to assess suppliers' environmental impacts. We are working in the short term to improve the sustainability rating of top suppliers so they achieve an average score of 80% on The Sustainability Project's (TSP) environmental sustainability survey by 2022. The transition to more non-emitting fuel sources directly impacts our fuel supply chain, i.e. buying less coal for generation. Climate related risk has a high impact on our fuel supply chain as risks are driving the transition from higher emitting fuel sources like coal to low and zero emitting generation, such as renewables and natural gas. In 2019, DTE Energy joined the Natural Gas Supply Collaborative which is a voluntary collaborative of natural gas purchasers that are promoting safe and responsible practices for natural gas supply, including reduction of methane emissions from the natural gas supply chain. In 2020 DTE Gas announced a holistic natural gas net zero goal that includes reducing emissions from DTE Gas suppliers to net zero by 2050.
Investment in R&D	Yes	We fund and participate in R&D programs and projects managed by the Electric Power Research Institute (EPRI), which helps to identify cost-effective strategies and evaluate alternatives for meeting future generation requirements, including environmental and climate related requirements. EPRI R&D projects address short-term issues such as strategies for setting climate goals, as well as long term issues such as identifying technologies to achieve net zero targets. For example (Case Study), EPRI's recent GHG Accounting methods review helped in confirming our climate reduction goals that are summarized in the IRP and that utilize net sales/purchases in addition to direct emissions from our power plants to calculate our goals. EPRI's support on understanding the development of 2-degree C climate scenarios and setting climate goals provides DTE with information to respond to stakeholders (e.g. shareholders) on how DTE Energy's carbon goals align with goals being advocated in the international policy community. Climate related risks have a medium impact on the company's investment in R&D depending on the nature of the climate-related issue that requires research.
Operations	Yes	We have committed to a carbon reduction goal that will achieve a 32 percent reduction in CO2 emissions from 2005 levels by the early 2020s, a 50 percent reduction by 2030, an 80 percent reduction by 2040 and net zero by 2050. As explained in our publicly available IRP Summary, these goals will be achieved through aggressive investment in energy efficiency, renewables, the Blue Water Energy Center natural gas plant, and our voluntary renewables programs, as well as through earlier coal retirements. While we reduce carbon emissions from our electric generation, DTE Gas has also committed to reduce emissions of methane by more than 80 percent by 2040 and in June 2020 committed to a net zero by 2050 goal for upstream natural gas suppliers as well our internal gas operations. 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 compressor stations. Risks/opportunities have a high impact on the company's operations, as risks/opportunities are driving the transition to renewables and natural gas. Additionally, variations in weather can impact electricity demand among customers. For example, extremely high or extremely low temperatures can increase electricity demand. Extreme weather events can also interrupt operations, resulting in infrastructure damage and outages. Case Study: The risk of increased frequency and severity of weather events is driving increased investment in DTE Electric's distribution infrastructure to support a resilient grid that will meet the needs of the grid as it becomes increasingly decarbonized in the next 30 years. In the short-term (2020-2024), DTE is investing \$5 billion to address these risks by investing in infrastructure resilience and hardening, infrastructure redesign, and increased technology and automation. In response to an order from the Michigan Public Service Commission, DTE Electric developed a Distribution Operations Five-Year (2018-2022) Investment and Maintenance Plan in 2018 that provides a detailed summary of the current state of DTE's distribution infrastructure and the needs of the future.

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Capital expenditures Acquisitions and divestments Access to capital	Revenues have a high impact on our financial planning process. DTE Energy must seek approval from the Michigan Public Service Commission to increase electricity rates charged to customer to fund capital expenditures, including new generation to replace retiring coal generation. In May 2019 an MPSC order authorized DTE Electric to raise base rates by \$273.3 million and approved a return on equity ("ROE") of 10%. This order responded to a July 2018 application filed by DTE requesting a general rate increase in order to recover, among other things, capital costs associated with the addition of new generation, and the Charging Forward Electric Vehicle program. A new request for a rate increase for funding in investments that will help DTE improve electric reliability, support Michigan jobs, reduce carbon emissions and provide needed upgrades at the Ludington Pumped Storage Power Plant was filed in June 2019, and on May 8, 2020, MPSC approved a \$188.3 million rate increase for DTE Electric. A portion of the May 2020 order approved in the Commission's decision will support continued reliability and emissions reductions as DTE transforms its generation resources through these plant retirements. Capital expenditures to meet our climate targets have a high impact on our financial planning process. In order to meet DTE Energy's commitment to carbon reductions and to replace retiring coal generation, the company needs to invest in cleaner replacement generation. The company filed an Integrated Resource Plan (IRP) in March 2019 that accelerates our carbon reduction goal to 80 percent below 2005 levels by 2040 and provides a pathway to meet this goal. The IRP indicates that DTE will invest in \$2 billion on renewable energy by 2024 and \$1 billion on the construction of the Blue Water Energy Center natural gas plant scheduled for initial operation in 2022. Funding for capital expenditures on renewables will be financed in part by Green Bonds that were issued by DTE Energy in April 2018 and again in February 2019. The ability to proceed with proposed acquisitions and/or divestments plays a strong role in our financial planning process. Environmental and climate-related risks are evaluated during the due diligence process for proposed mergers and acquisitions of properties. For example, Appalachia Gathering System is a midstream natural gas asset located in Pennsylvania and West Virginia. DTE Energy purchased 100% of AGS in October 2016, Stonewall Gas Gathering is a midstream natural gas asset located in West Virginia. DTE Energy purchased 55% of SGG in October 2016. Both AGS and SGG are part of DTE Energy's Gas Storage and Pipelines segment. Gas Storage and Pipelines expects to continue its steady growth plan by expanding existing assets, acquiring and/or developing new assets that are typically supported with long-term customer commitments. The focus will be on opportunities in the Midwest to Northeast region to supply natural gas to meet growing demand and displace less attractive supply from certain regions in North America. In December 2019, Gas Storage and Pipelines completed the acquisition of the Blue Union gathering system and LEAP gathering pipeline in the Haynesville shale formation of Louisiana which provide access to growing Gulf Coast markets. The assets serve multiple markets, including Louisiana, the nation's third largest natural gas consumer, and the Gulf Coast where demand for natural gas is rapidly increasing in the power, industrial and LNG export sectors. Through this acquisition, Gas Storage and Pipeline invested in economically strong and strategically situated assets that are supported by long-term contracts. Much of the growth in demand for natural gas is expected to occur in the eastern Canada and the northeast U.S. regions. Climate risks and opportunities are considered during the due diligence process and are a significant driver impacting mergers and acquisitions. The ability to proceed with proposed acquisitions and/or divestments plays a strong role in our financial planning process. Access to capital has a high impact on our financial planning process. As explained above, DTE Energy must seek approval from the Michigan Public Service Commission to increase electricity rates charged to customer to fund capital expenditures, including new generation to replace retiring coal generation. In addition, DTE Electric priced its inaugural offering of green bonds in May 2018. Proceeds from the \$525 million in green bonds will be used to finance expenditures for solar and wind energy, payments under power purchase agreements for solar and wind energy, and energy optimization programs. DTE is the fifth investment-grade energy company in the nation – and the first company in Michigan – to sell green bonds. In February 2019, DTE Electric issued its second offering of green bonds in the amount of \$650 million.

C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

In June 2020, DTE announced a net zero goal for its gas utility after months of planning and analysis. The holistic three-fold approach will include natural gas suppliers to operate at net zero greenhouse gas emissions by 2050; DTE Gas operations, both combustion and fugitive emissions, will also achieve net zero by 2050; and partnerships with customers on energy efficiency and voluntary offsets will reduce their emission by approximately 35% by 2050. Details on these goals are forthcoming.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2017

Target coverage

Business division

Scope(s) (or Scope 3 category)

Scope 1

Base year

2005

Covered emissions in base year (metric tons CO₂e)

37700000

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

94

Target year

2040

Targeted reduction from base year (%)

80

Covered emissions in target year (metric tons CO₂e) [auto-calculated]

7540000

Covered emissions in reporting year (metric tons CO₂e)

27300000

% of target achieved [auto-calculated]

34.4827586206897

Target status in reporting year

Underway

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

Please explain (including target coverage)

DTE Energy led the industry in setting an aggressive mid-century target for our electric utility in 2017. The 2017 carbon reduction commitment was 30 percent below 2005 levels by 2023, 45 percent by 2030, 75 percent by 2040, and more than 80 percent by 2050. In 2019, DTE Electric accelerated this carbon reduction commitment in the Integrated Resource Plan (IRP) submitted to the Michigan Public Service Commission followed by a net zero commitment in September 2019. The 2019 target is 32 percent below 2005 levels by 2023, 50 percent below by 2030, 80 percent below by 2040 and net zero (100 percent below) by 2050. Emissions in 2019 were 28 percent below 2005 levels, which represents 34.6 percent of the overall goal of 80 percent reduction by 2040.

Target reference number

Abs 2

Year target was set

2017

Target coverage

Business division

Scope(s) (or Scope 3 category)

Scope 1

Base year

2005

Covered emissions in base year (metric tons CO2e)

37700000

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

94

Target year

2030

Targeted reduction from base year (%)

50

Covered emissions in target year (metric tons CO2e) [auto-calculated]

18850000

Covered emissions in reporting year (metric tons CO2e)

27300000

% of target achieved [auto-calculated]

55.1724137931034

Target status in reporting year

Underway

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

Please explain (including target coverage)

DTE Energy led the industry in setting an aggressive mid-century target for our electric utility in 2017. The 2017 carbon reduction commitment was 30 percent below 2005 levels by 2023, 45 percent by 2030, 75 percent by 2040, and more than 80 percent by 2050. In 2019, DTE Electric accelerated this carbon reduction commitment in the Integrated Resource Plan (IRP) submitted to the Michigan Public Service Commission followed by a net zero commitment in September 2019. The 2019 target is 32 percent below 2005 levels by 2023, 50 percent below by 2030, 80 percent below by 2040 and net zero (100 percent below) by 2050. Emissions in 2019 were 28 percent below 2005 levels, which represents 55 percent of the overall goal of 50 percent reduction by 2030.

Target reference number

Abs 3

Year target was set

2017

Target coverage

Business division

Scope(s) (or Scope 3 category)

Scope 1

Base year

2005

Covered emissions in base year (metric tons CO2e)

37700000

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

94

Target year

2023

Targeted reduction from base year (%)

32

Covered emissions in target year (metric tons CO2e) [auto-calculated]

25636000

Covered emissions in reporting year (metric tons CO2e)

27300000

% of target achieved [auto-calculated]

86.2068965517241

Target status in reporting year

Underway

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

Please explain (including target coverage)

DTE Energy led the industry in setting an aggressive mid-century target for our electric utility in 2017. The 2017 carbon reduction commitment was 30 percent below 2005 levels by 2023, 45 percent by 2030, 75 percent by 2040, and more than 80 percent by 2050. In 2019, DTE Electric accelerated this carbon reduction commitment in the Integrated Resource Plan (IRP) submitted to the Michigan Public Service Commission followed by a net zero commitment in September 2019. The 2019 target is 32 percent below 2005 levels by 2023, 50 percent below by 2030, 80 percent below by 2040 and net zero (100 percent below) by 2050. Emissions in 2019 were 28 percent below 2005 levels, which represents 86.6 percent of the overall goal of 32 percent reduction. by 2023.

Target reference number

Abs 4

Year target was set

2018

Target coverage

Business division

Scope(s) (or Scope 3 category)

Scope 1

Base year

2011

Covered emissions in base year (metric tons CO2e)

450300

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

1

Target year

2040

Targeted reduction from base year (%)

80

Covered emissions in target year (metric tons CO2e) [auto-calculated]

90060

Covered emissions in reporting year (metric tons CO2e)

355730

% of target achieved [auto-calculated]

26.2519431490118

Target status in reporting year

Underway

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

Please explain (including target coverage)

In 2018, DTE Gas committed to reduce emissions of methane by more than 80 percent by 2040. 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 compressor stations. In 2019 we achieved a 21 percent reduction from 2011 levels in our methane leak rate, which represents 26 percent of the total reduction goal of 80 percent below 2011 levels.

Target reference number

Abs 1

Year target was set

2019

Target coverage

Business division

Scope(s) (or Scope 3 category)

Scope 1

Base year

2005

Covered emissions in base year (metric tons CO2e)

37700000

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

94

Target year

2050

Targeted reduction from base year (%)

100

Covered emissions in target year (metric tons CO2e) [auto-calculated]

0

Covered emissions in reporting year (metric tons CO2e)

27300000

% of target achieved [auto-calculated]

27.5862068965517

Target status in reporting year

Underway

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

Please explain (including target coverage)

DTE Energy led the industry in setting an aggressive mid-century target for our electric utility in 2017. The 2017 carbon reduction commitment was 30 percent below 2005 levels by 2023, 45 percent by 2030, 75 percent by 2040, and more than 80 percent by 2050. In 2019, DTE Electric accelerated this carbon reduction commitment in the Integrated Resource Plan (IRP) submitted to the Michigan Public Service Commission, followed by a net zero commitment in September 2019. The 2019 target is 32 percent below 2005 levels by 2023, 50 percent below by 2030, 80 percent below by 2040 and net zero (100 percent below) by 2050. Emissions in 2019 were 28 percent below 2005 levels, which represents 28 percent of the overall goal of net zero by 2050.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to increase low-carbon energy consumption or production

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number

Low 1

Year target was set

2018

Target coverage

Business division

Target type: absolute or intensity

Absolute

Target type: energy carrier

Electricity

Target type: activity

Production

Target type: energy source

Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)

Percentage

Target denominator (intensity targets only)

<Not Applicable>

Base year

2009

Figure or percentage in base year

1

Target year

2030

Figure or percentage in target year

25

Figure or percentage in reporting year

12.5

% of target achieved [auto-calculated]

47.9166666666667

Target status in reporting year

Underway

Is this target part of an emissions target?

In May 2018, DTE Energy and Consumers Energy announced plans to produce cleaner energy in Michigan, targeting at least a 50 percent Clean Energy Goal by 2030—achieved through a combination of investments in at least 25 percent renewable energy, and the remaining through energy efficiency. DTE and Consumers Energy have both announced plans to reduce carbon emissions by more than 80 percent in the coming decades. Leveraging the already aggressive framework established in Michigan's 2016 bipartisan energy law, the state's two largest energy companies are advancing their plans to invest in Michigan in conjunction with an agreement by Clean Energy, Healthy Michigan (CEHM) to place aside a ballot proposal to increase the state's renewable portfolio standard. DTE Energy has also complied with all state-mandated targets for renewable energy. Previous legislation had required a 10 percent renewable standard by 2015, which we have met or exceeded each applicable year. The most recent energy legislation sets a 12.5 percent renewable energy target by 2019 and 15 percent by 2021. DTE Energy is well positioned to meet these future goals with the addition of new generation resources currently planned or under development. The commitment to a 25 percent renewable portfolio standard by 2030 as well as the state-mandated targets for renewables were incorporated into the Integrated Resource Plan submitted to the Michigan Public Service Commission in March 2019.

Is this target part of an overarching initiative?

Other, please specify (DTE Electric's milestones to a goal of net zero carbon emissions by 2050.)

Please explain (including target coverage)

In March 2019, DTE accelerated our carbon reduction commitment in the Integrated Resource Plan (IRP) submitted to the Michigan Public Service Commission. The 2019 target is 32 percent below 2005 levels by 2023, 50 percent below by 2030, 80 percent below by 2040 and more than 80 percent below by 2050. In September 2019, DTE raised the 2050 carbon reduction goal to net zero. This renewable energy target will help the company meet the overall net zero carbon reduction commitment.

Target reference number

Low 2

Year target was set

2009

Target coverage

Business division

Target type: absolute or intensity

Absolute

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Low-carbon energy source(s)

Metric (target numerator if reporting an intensity target)

Percentage

Target denominator (intensity targets only)

<Not Applicable>

Base year

2009

Figure or percentage in base year

0.3

Target year

2021

Figure or percentage in target year

2

Figure or percentage in reporting year

1.53

% of target achieved [auto-calculated]

72.3529411764706

Target status in reporting year

Underway

Is this target part of an emissions target?

Michigan's Energy Waste Reduction (EWR) standard, created under Public Act 295 of 2008 (PA 295 or the Act) as amended by PA 342 of 2016 (PA 342), requires all gas and electric utilities in the state to implement programs to reduce overall energy usage by specified targets, in order to reduce the future costs of gas and electric service to customers. Electric utilities were required to achieve 0.3 percent savings in 2009; 0.5 percent in 2010; 0.75 percent in 2011; and 1.0 percent in 2012 and each year thereafter until the end of 2021. Beyond 2021, the level of electric energy efficiency savings will be determined by the utility's Integrated Resource Plan. Performance Incentives are built into the 2016 Michigan Legislation to encourage utilities to go beyond the minimum required energy savings (i.e. 1.0 percent from 2012 to 2021). DTE's goals using Performance Incentives for this period are as follows: 2012-2016: 1.0% 2017-2019: 1.5% 2020: 1.625% 2021: 1.75%

Is this target part of an overarching initiative?

Other, please specify (DTE Electric's milestones to a goal of net zero carbon emissions by 2050.)

Please explain (including target coverage)

In 2019, DTE Electric accelerated our carbon reduction commitment in the Integrated Resource Plan (IRP) submitted to the Michigan Public Service Commission. The 2019 target is 32 percent below 2005 levels by 2023, 50 percent below by 2030, 80 percent below by 2040 and more than 80 percent below by 2050. In September 2019, DTE raised the 2050 carbon reduction goal to net zero. DTE previously committed to increasing energy efficiency at a level equivalent to 1.5 percent of sales annually. These efforts already have saved approximately 5,813 gigawatt hours since 2009.

Target reference number

Low 3

Year target was set

2009

Target coverage

Business division

Target type: absolute or intensity

Absolute

Target type: energy carrier

Other, please specify (Natural gas consumption)

Target type: activity

Consumption

Target type: energy source

Low-carbon energy source(s)

Metric (target numerator if reporting an intensity target)

Percentage

Target denominator (intensity targets only)

<Not Applicable>

Base year

2009

Figure or percentage in base year

0.1

Target year

2021

Figure or percentage in target year

1

Figure or percentage in reporting year

1

% of target achieved [auto-calculated]

100

Target status in reporting year

Underway

Is this target part of an emissions target?

Michigan's Energy Waste Reduction (EWR) standard, created under Public Act 295 of 2008 (PA 295 or the Act) as amended by PA 342 of 2016 (PA 342), requires all gas and electric utilities in the state to implement programs to reduce overall energy usage by specified targets, in order to reduce the future costs of gas and electric service to customers. Natural gas utilities must achieve 0.1 percent savings in 2009 based on annual percentage of planned retail sales; 0.25 percent in 2010; 0.5 percent in 2011; and 0.75 percent in 2012 and each year thereafter. Performance Incentives are built into the 2016 Michigan Legislation to encourage utilities to go beyond the minimum required energy savings (i.e. 0.75 percent from 2012 to 2021 for natural gas utilities). DTE's natural gas energy savings goals using Performance Incentives for this period are as follows: 2012-2016: 0.75% 2017-2021: 1.0%

Is this target part of an overarching initiative?

Other, please specify (This target supports a DTE Gas carbon reduction goal that was announced in June 2020.)

Please explain (including target coverage)

In June 2020, DTE Gas announced a holistic net zero carbon goal that will reduce emissions across the natural gas value chain from procurement through delivery. Natural gas efficiency goals will support DTE and our customers in reaching these carbon reduction goals.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*	1	600000
Implementation commenced*	2	16300
Implemented*		
Not to be implemented		

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in buildings	Building Energy Management Systems (BEMS)
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Estimated annual CO2e savings (metric tonnes CO2e)

1

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

12700000

Payback period

No payback

Estimated lifetime of the initiative

6-10 years

Comment

DTE Energy has committed to reducing its own utilization of energy 25% by 2022 at Company Headquarters and administrative offices managed by the DTE Corporate Facilities group. The proposed energy efficiency projects require capital funding of \$12.7 million and O&M funding of \$1.9 million through 2022. The net present value of energy efficiency savings for the period 2017-2027 varies from a net positive using commercial electric rates, to an equivalent net negative using the power supply cost recovery rates that DTE actually pays for electricity, which is why we are indicating zero payback. The annual savings from these energy efficiency projects in 2019 was approximately 1.48 MWh which translates to approximately 1 metric ton of CO2 savings.

Initiative category & Initiative type

Fugitive emissions reductions	Other, please specify (Natural gas methane leak capture/prevention)
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Estimated annual CO2e savings (metric tonnes CO2e)

16300

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

232400000

Payback period

No payback

Estimated lifetime of the initiative

16-20 years

Comment

In 2018 DTE Gas committed to reduce methane emissions from its natural gas utility operations by more than 80 percent by 2040, part of a broad sustainability initiative the company has launched to reduce greenhouse gas emissions and address climate change while continuing to provide customers with reliable and affordable power. DTE is achieving these fugitive methane reductions by replacing steel and cast iron natural gas distribution pipelines at a more accelerated pace than recommended by the Environmental Protection Agency and by reducing equipment leaks at natural gas compressor stations. Funding for this initiative through 2023 has been approved by the Michigan Public Service Commission (MPSC). The estimated CO2-e savings are for 2019 only and may be higher or lower each year depending on the amount of pipeline replaced. The investment required is annual investment as approved by the MPSC for the years 2021 and 2022. The total cost to complete the initiative (scheduled for completion in the mid 2030s) is \$4 billion.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	Construction of renewable energy sources to meet a renewable portfolio standard, as well as programs to reduce demand through energy efficiency measures is required under Michigan Energy Legislation. Environmental regulations aimed at conventional pollutants such as sulfur dioxide, oxides of nitrogen, and mercury will drive emission reductions from coal-fired power plants that will also reduce emissions of greenhouse gases. Future compliance with federal greenhouse gas rules will drive additional curtailment of coal-fired generation and require investment in lower emitting generation sources such as renewables and natural gas fired power plants.
Partnering with governments on technology development	DTE's Smart Grid Investment initiative was funded in part by a grant from the U.S. Department of Energy. We have also applied for funding at the state level for research on electric vehicles and their impact on the electric power system.
Dedicated budget for energy efficiency	Building efficiency improvements described in our response to Question 4.3b are funded through dedicated energy efficiency budgets; however, payback amounts are challenging because DTE Electric's internal company rate is less than commercial rates charged to customers.
Employee engagement	DTE Energy is in the process of establishing and executing an employee communications and ambassador program, including change management strategies, to build awareness of and engagement in sustainability efforts. This includes a branding and communications campaign around environmental leadership, outlining launch of both internal and external campaigns and messaging.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Group of products

Description of product/Group of products

DTE Electric customer Energy Waste Reduction Program offerings

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Verified net energy savings are DTE's reported savings after they have been adjusted based on the results of a review by our independent evaluation contractor, Navigant Consulting Inc.)

% revenue from low carbon product(s) in the reporting year

2

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

507,210 metric tons of CO2 emissions avoided in 2019 as a result of DTE Electric customer savings of 717 GWh. Revenues collected for DTE Electric EWR programs in 2019 were \$103.8 million which represents 2% of total DTE Electric operating revenues of \$5,224 million in 2019. The verified net lifetime (2019-2033) greenhouse gas emissions reductions for DTE Electric's 2019 EWR program activities are 6,373,945 metric tons of CO2, This data is included in DTE Energy's Annual Energy Waste Reduction Report submitted to the Michigan Public Service Commission.

Level of aggregation

Group of products

Description of product/Group of products

DTE Gas customer Energy Waste Reduction Program offerings

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Verified net energy savings are DTE's reported savings after they have been adjusted based on the results of a review by our independent evaluation contractor, Navigant Consulting Inc.)

% revenue from low carbon product(s) in the reporting year

1.8

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

100,104 metric tons of CO2 emissions avoided in 2019 as a result of 1,841 MMcf of DTE Gas customer savings. Revenues collected for DTE Gas EWR programs in 2019 were \$27.4 million which represents 1.8% of total DTE Gas operating revenues of \$1,482 million in 2018. The verified net lifetime (2019-2033) greenhouse gas emissions reductions for DTE Gas' 2019 EWR program activities are 1,414,320 metric tons of CO2, This data is included in DTE Energy's Annual Energy Waste Reduction Report submitted to the Michigan Public Service Commission.

Level of aggregation

Product

Description of product/Group of products

Addressing climate change must be a cross-industry effort, so we've expanded our MiGreenPower program to our large business and industrial customers. Introduced in 2017, 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 percent. MiGreenPower is available to business owners, homeowners or renters to help them go green easily and affordably, without installing special equipment or making exterior alterations. Participating customers, who now number more than 13,000, see a slight increase in their monthly bill while supporting Michigan's clean energy future. DTE Electric's 2019 Integrated Resource Plan committed us to an expansion of our MiGreenPower program to our large business and industrial customers. We're expanding this voluntary initiative to meet the needs of our largest business and industrial customers who are working to meet their own sustainability goals, enabling them to invest in renewable energy. The program is designed to grow and represents a progressive approach to fill market demand. In fact, we've already partnered with Ford and GM to provide renewable energy to support their sustainability goals. Ford has committed to procuring 500,000 MW hours annually of wind energy to power several of its Michigan facilities, including the plant that makes its popular F-150 truck. GM has partnered with DTE to procure 800,000 MW hours annually of wind energy to power 100 percent of GM's DTE-supplied facilities in southeast Michigan with wind or solar energy by 2023. MiGreenPower is Green-e Energy certified for businesses and for residential customers who subscribe at or above 25 percent, and meets the environmental and consumer protection standards set forth by the non-profit Center for Resource Solutions. DTE also is exploring opportunities to expand its residential offerings to those interested in more local, community renewable energy.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (MiGreenPower is Green-e Energy Certified)

% revenue from low carbon product(s) in the reporting year

0

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

We cannot disclose the percent revenue attributed to the MiGreen Power program at this time.

Level of aggregation

Product

Description of product/Group of products

DTE's BioGreen Gas program is a voluntary renewable energy program for DTE Gas Customers. Customers elect to pay a premium of \$2.50 per month to support the development and advance the utilization of natural gas generated from landfills and other biogas resources.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (EPA Landfill Methane Outreach Program)

% revenue from low carbon product(s) in the reporting year

0

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

We cannot disclose the percent revenue attributed to the BioGreen Gas program at this time.

C-EU4.6

(C-EU4.6) Describe your organization's efforts to reduce methane emissions from your activities.

DTE has been working with the Edison Electric Institute (EEI) and the American Gas Association (AGA) on Natural Gas Sustainability Initiative (NGSI) and the voluntary reporting Environmental, Social and Governance (ESG) template of key sustainability metrics, including emissions of methane from our gas operations. The NGSI is a CEO-led initiative designed to improve sustainability performance and disclosure across the value chain, from production well to burner tip. In 2019 DTE Energy was one of the participants in the EEI and AGA pilot testing of the NGSI Methane Intensity Protocol, a proposed method to standardize methane intensity metrics across the five segments of the natural gas supply chain.

DTE has also initiated efforts to influence DTE Gas' natural gas suppliers to reduce their emissions. In 2019 DTE joined the Natural Gas Supply Collaborative (NGSC), a voluntary group of 13 natural gas purchasers promoting safe and responsible practices for natural gas supply. DTE Gas has adopted the NGSC's rating system to assess internally the efforts of our own suppliers, and intends to leverage our membership in the collaborative to strengthen their efforts to hold suppliers accountable for their methane emissions.

Case Study: In 2018 DTE Gas committed to reduce emissions of methane by more than 80 percent by 2040. We're controlling methane leaks by replacing hundreds of miles of older natural gas pipelines with safer, air-tight material and through maintenance upgrades at DTE natural gas compression stations. DTE Gas is a member of the Environmental Protection Agency's Natural Gas STAR Methane Challenge Program. The Company has made the following commitments under the Methane Challenge Program which supports our commitment to 80% reduction by 2040:

1. Reducing leaks from gas compressor engines by implementing a rod packing leak rate testing and replacement program.
2. Replacing all existing cast iron and unprotected steel gas distribution mains over the next 20 years.

In June 2020, DTE Gas announced a holistic three-fold carbon reduction goal that will work to reduce natural gas supplier emissions to net zero by 2050 and to reduce our internal carbon emissions (fugitive methane emissions and combustion emissions) to net zero by 2050. More details on the DTE Gas Net Zero announcement will be forthcoming.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1 2005

Base year end

December 31 2005

Base year emissions (metric tons CO2e)

37722000

Comment

Scope 1 emissions from DTE Electric (formerly Detroit Edison) power plants only. This represents more than 90% of total CO2 emissions for DTE Energy in 2005.

Scope 2 (location-based)

Base year start

January 1 2006

Base year end

December 31 2006

Base year emissions (metric tons CO2e)

3600000

Comment

As reported to CDP for reporting year 2006.

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources
US EPA Center for Corporate Climate Leadership: Direct Emissions from Mobile Combustion Sources
US EPA Mandatory Greenhouse Gas Reporting Rule
Other, please specify (US EPA eGRID Summary Tables 2016)

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

US EPA eGRID Summary Tables 2016 (Created 2/15/2018) - Table 1. Subregion Output Emission Rates - Subregion: RFC Michigan (RFCM)

US EPA Mandatory Greenhouse Gas Reporting Rule (40 CFR 98) Table A-1 to Subpart A - GWPs (published 11/29/2013 & effective 1/1/2014). Note these 100 year Global Warming Potentials align with the IPCC 4th Assessment Report (AR4).

U.S. EPA Center for Corporate Climate Leadership - Emission Factors for Greenhouse Gas Inventories (Last Modified 3/9/2018) - Tables: 1 - Stationary Combustion; 2 - Mobile Combustion CO₂; 8 - Business Travel & Employee Commuting; & 9 - Upstream Transportation and Distribution and Downstream Transportation and Distribution

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO₂e?

Reporting year

Gross global Scope 1 emissions (metric tons CO₂e)
30714000

Start date
January 1 2019

End date
December 31 2019

Comment
Scope 1 emissions include emissions from the following business units: DTE Electric Company - stationary sources and fleet vehicles; DTE Gas Company - stationary sources, including fugitive emissions, and fleet vehicles; DTE Power and Industrial Projects - stationary sources; DTE Gas Storage and Pipelines - stationary sources, including fugitive emissions.

Past year 1

Gross global Scope 1 emissions (metric tons CO₂e)
34246000

Start date
January 1 2018

End date
December 31 2018

Comment
Scope 1 emissions include emissions from the following business units: DTE Electric Company - stationary sources and fleet vehicles; DTE Gas Company - stationary sources, including fugitive emissions, and fleet vehicles; DTE Power and Industrial Projects - stationary sources; DTE Gas Storage and Pipelines - stationary sources, including fugitive emissions.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We have operations where we are able to access electricity supplier emission factors or residual emissions factors, but are unable to report a Scope 2, market-based figure

Comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

1719000

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

January 1 2019

End date

December 31 2019

Comment

Scope 2 emissions are reported for transmission and distribution line losses for purchased power and internal use of power on the DTE Electric system. US EPA's eGRID2016 (location-based) emission factors were used to calculate these emissions.

Past year 1

Scope 2, location-based

1938000

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

January 1 2018

End date

December 31 2018

Comment

Scope 2 emissions are reported for transmission and distribution line losses for purchased power and internal use of power on the DTE Electric system. US EPA's eGRID2016 (location-based) emission factors were used to calculate these emissions.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source

Sources not subject to the US EPA's Greenhouse Gas Reporting rule under 40 CFR Part 98.

Relevance of Scope 1 emissions from this source

Emissions are relevant but not yet calculated

Relevance of location-based Scope 2 emissions from this source

No emissions excluded

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not evaluated

Explain why this source is excluded

Facilities not subject to Greenhouse Gas Reporting under 40 CFR Part 98 are considered minimal sources of greenhouse gas emissions (under 25,000 mt of CO₂e). Emissions from these sources have not yet been calculated and are therefore not included in the Scope 1 emissions. Emissions from facilities only subject to state greenhouse gas reporting (such as Cal-eGGRT) are also not included in Scope 1 emissions. Scope 2 emissions are included for all DTE Electric Company facilities, regardless of whether they are subject to 40 CFR Part 98. See below for Scope 2 emissions from other business divisions.

Source

Scope 2 emissions from the following business divisions: DTE Gas Company, DTE Gas Storage and Pipelines, and DTE Power and Industrial Projects

Relevance of Scope 1 emissions from this source

No emissions excluded

Relevance of location-based Scope 2 emissions from this source

Emissions are relevant but not yet calculated

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not evaluated

Explain why this source is excluded

DTE Electric Company accounts for the majority of DTE Energy purchased energy emissions. Scope 2 emissions (purchased power) from DTE Gas Company, DTE Gas Storage and Pipelines, and DTE Power and Industrial Projects have not yet been calculated.

Source

Mobile sources from DTE Gas Storage and Pipelines and DTE Power and Industrial Projects (e.g. company owned/controlled fleet vehicles and heavy mobile equipment onsite).

Relevance of Scope 1 emissions from this source

Emissions are relevant but not yet calculated

Relevance of location-based Scope 2 emissions from this source

No emissions from this source

Relevance of market-based Scope 2 emissions from this source (if applicable)

No emissions from this source

Explain why this source is excluded

DTE Electric Company and DTE Gas Company account for the majority of fleet vehicles. Scope 1 mobile source emissions from DTE Gas Storage and Pipelines and DTE Power and Industrial Projects have not yet been calculated.

Source

Greenhouse gases other than CO₂, CH₄, N₂O, biogenic CO₂, and CO₂e.

Relevance of Scope 1 emissions from this source

No emissions from this source

Relevance of location-based Scope 2 emissions from this source

No emissions from this source

Relevance of market-based Scope 2 emissions from this source (if applicable)

No emissions from this source

Explain why this source is excluded

Greenhouse gases other than CO₂, CH₄, N₂O, biogenic CO₂, and CO₂e are considered minimal or zero (e.g. SF₆). Therefore, they are not included.

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Capital goods

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

4403107

Emissions calculation methodology

Emissions from purchased power (less interconnection sales) were calculated from eGRID2016 (Created February 15, 2018) using the total output emission rate (lb/MWh) for CO2e in subregion RFC Michigan.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Emissions calculated from total purchased power (less interconnection sales).

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

637208

Emissions calculation methodology

Emissions are calculated by multiplying the coal burned (short tons) per coal source (e.g. Low Sulfur Western, High Sulfur Eastern) by the route distance (in miles) per coal source and transport type (i.e., rail vs. vessel). Then, the total ton-miles for each facility (including all coal sources) is multiplied by the respective CO2, CH4, and N2O emission factors for either rail or waterborne craft. The emissions are then multiplied by the respective GWP per pollutant to calculate CO2e. CO2e is added for all facilities and transport types to calculate total CO2e for coal transportation. Emission factors for Rail and Waterborne Craft were utilized from Table 9 - Upstream Transportation and Distribution and Downstream Transportation and Distribution of Emission Factors for GHG Inventories.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Emissions are calculated for upstream transportation of coal from mines to power plants via rail and vessel.

Waste generated in operations

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

4143

Emissions calculation methodology

These emissions are based on employee business miles traveled in personal vehicles while on company business. Miles are claimed by each employee and recorded in a central database. Emission factors for Passenger Car and Light-Duty Truck were utilized from Table 8 - Business Travel and Employee Commuting of Emission Factors for GHG Inventories.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Emissions related to business travel are currently only calculated for employee-owned vehicles (for which mileage was reimbursed). Air, rental vehicles, bus, motorcycle, and rail business travel are not accounted for. Note that emissions from company-owned vehicles are included in Scope 1.

Employee commuting

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

DTE does not have any upstream leased assets.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Downstream emissions from natural gas deliveries are reported separately under Use of Sold Products of Scope 3 emissions. Indirect emissions from line losses on the electric distribution system are included in the Scope 2 emissions.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

DTE Energy's largest businesses are the utilities of DTE Electric Company and DTE Gas Company. The products sold for these utilities are electricity and natural gas. These products are used to provide energy to customers and are generally not processed or reprocessed into other materials.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

12263623

Emissions calculation methodology

This value is determined in accordance with the requirements of 40 CFR Part 98 Subpart NN and therefore does not include emissions from deliveries to customers whose meters register an annual volume greater than 460,000 Mscf of natural gas deliveries.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Emissions reported represent what would result from the combustion of complete oxidation of natural gas delivered by local distribution companies (LDCS) owned by DTE Energy (DTE Gas Company and Citizens Gas Fuel Company).

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

DTE Energy's largest businesses are the utilities DTE Electric Company and DTE Gas Company. The products sold for these utilities are electricity and natural gas. Once consumed, there is no end of life of these sold energy products.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

DTE does not have any downstream leased assets.

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

DTE does not own any franchises.

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

DTE does not have investments that contribute to CO2e emissions (other than company-owned assets, whose emissions are already accounted for under Scope 1).

Other (upstream)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

422299

Emissions calculation methodology

Upstream transmission and distribution (T&D) line loss are accounted for using DTE's internal T&D line loss rate for the year multiplied by DTE's total purchased power (including interconnect sales). Emissions are calculated using eGRID2016's (Created February 15, 2018) total output emission rate (lb/MWh) for CO2e in subregion RFC Michigan.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Emissions represent the estimated transmission and distribution line losses that occur upstream before DTE Electric receives purchased power for distribution. Emissions also account for transmission and distribution line losses for electricity provided via interconnect sales.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

DTE Energy's largest businesses are the utilities DTE Electric Company and DTE Gas Company. The downstream products sold for these utilities are electricity and natural gas. DTE energy waste reduction (EWR) offers >20 programs for its customers to increase energy efficiency and optimization (e.g. insulation, LED light bulbs, pipe wrap, faucet aerators, higher efficiency appliances, etc.). This results in a decrease in downstream energy consumption and emissions by our customers. The avoided emissions as a result of these EWR programs are described in C12 .1b. Additionally, DTE offers a voluntary renewables program (MiGreenPower) whereby its customers can opt to purchase energy (0-100%) from renewable resources, such as wind and solar, with 0 carbon emissions. This reduces or completely eliminates downstream emissions from residential and commercial customers.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.0026

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

32432723

Metric denominator

unit total revenue

Metric denominator: Unit total

12669000000

Scope 2 figure used

Location-based

% change from previous year

0.55

Direction of change

Increased

Reason for change

The very slight change can be attributed to a decrease in emissions (-10.37%) with a similar decrease in company operating revenue (-10.9%).

Intensity figure

3031

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

32432723

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

10700

Scope 2 figure used

Location-based

% change from previous year

11.2

Direction of change

Decreased

Reason for change

The change can be attributed to a decrease in emissions (-10.37%) and a slight hiring increase (total # of employees grew by 0.94%).

Intensity figure

0.7734

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

30259484

Metric denominator

megawatt hour generated (MWh)

Metric denominator: Unit total

39126989

Scope 2 figure used

Location-based

% change from previous year

10.16

Direction of change

Decreased

Reason for change

The change can be attributed to a decrease in emissions from DTE Electric Company (-11.64%) and a very slight decrease in total generation (-1.65%).

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	29924053	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	655119	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	134921	IPCC Fourth Assessment Report (AR4 - 100 year)

C-EU7.1b

(C-EU7.1b) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 SF6 emissions (metric tons SF6)	Total gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives	0	0	0	0	
Combustion (Electric utilities)	28329293	3100	0	28540854	The Total CO2e emissions include 134,058 metric tons of N2O as CO2e
Combustion (Gas utilities)	0	0	0	0	
Combustion (Other)	0	0	0	0	
Emissions not elsewhere classified	0	0	0	0	

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	30714000

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

By facility

By activity

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
DTE Electric Company	28540854
DTE Gas Company	687345
Gas Storage and Processing	824288
Power and Industrial Projects	661606

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Belle River Power Plant	5753657	42.774371	-82.495482
Greenwood Energy Center	570934	43.105526	-82.697386
Monroe Power Plant	15147315	41.890749	-83.34523
River Rouge Power Plant	689188	42.273764	-83.112412
St. Clair Power Plant	4222570	42.763663	-82.472341
Trenton Channel Power Plant	1537170	42.122172	-83.181271
Delray	7929	42.294976	-83.102101
DTE East China (Dean Peakers)	172494	42.774417	-82.481913
Renaissance Power	425018	43.186187	-84.842994
Belle River Mills Compressor Station	69147	42.788333	-82.530827
Taggart (Six Lakes) Compressor Station	49293	43.44356	-85.142801
Washington 10 Compressor Station	38435	42.767854	-83.005993
Citizens Gas Fuel Company	0	41.899792	-84.036195
DTE Energy MichCon LDC	458970	42.33375	-83.057636
Bluestone Gathering System	194552	41.821671	-75.685817
Susquehanna Gathering Company, LLC	287061	41.821671	-75.685817
DTE Appalachia Gathering, LLC	114459	39.683178	-79.92475
DTE Calvert City, LLC	202444	37.048101	-88.353361
EES Coke Battery	285127	42.281083	-83.111722
Mobile Energy Services, LLC	49684	30.73691	-88.050194
Procter & Gamble Company - Ivorydale	124351	39.175091	-84.500819
Enrico Fermi II Nuclear Power Plant	277	41.962868	-83.25762
Non-Stationary sources (DTE Electric Company)	14244		
Non-Stationary sources (DTE Gas Company)	10548		

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Stationary Sources (Combustion and Fugitives)	30393492
Mobile Combustion Sources (Vehicles)	31374

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-T07.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-T07.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions, metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	28540854	<Not Applicable>	Emissions for DTE Electric facilities only.
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?
Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change		No change in renewable energy consumption. DTE Electric is a generator of renewable energy.
Other emissions reduction activities	11000	Decreased	0.03	Pipeline replacement (replacing cast iron and unprotected steel with protected steel and PVC piping) on main and distribution lines in RY2019 reduced the amount of leaks associated with gas distribution, which led to a decrease in Scope 1 direct emissions from DTE Gas Company (LDC). Through these activities, emissions were reduced by approximately 11,000 metric tons CO2e. The total Scope 1 and Scope 2 emissions in the previous year (2018) was 36,247,600 metric tons CO2e. Therefore, we arrived at -0.03% through $(-11,000/36,247,600) * 100 = -0.03\%$ (i.e. a 0.03% decrease in Scope 1 and 2 emissions).
Divestment	0	No change		Not applicable
Acquisitions	0	No change		In December 2019, DTE Gas Storage and Pipelines completed the acquisition of the Blue Union gathering system and LEAP gathering pipeline in the Haynesville shale formation of Louisiana which provide access to growing Gulf Coast markets. Reporting of emissions from these assets will be included in DTE's 2020 GHG reporting.
Mergers		<Not Applicable >		No change
Change in output	3815000	Decreased	10.5	DTE Electric Company experienced a decrease in emissions of 11.6 percent due to market demand and increased utilization of lower emitting generation, including renewables. The DTE Electric emissions account for the bulk of the Scope 1 reductions (3.75 million metric ton decrease), even as DTE Gas combustion and fugitive emissions rose 14.2 percent (84,245 metric ton increase) and DTE Gas Storage and Pipelines increased 51 percent (278,300 metric ton increase). Other smaller reductions were seen from Power and Industrial Projects and our utility fleet vehicles. Through these activities, emissions decreased by 3,814,900 metric tons CO2e. The total Scope 1 and Scope 2 emissions in the previous year (2018) was 36,247,600 tons CO2e. Therefore, we arrived at 10.5 percent through $(3,814,900/36,247,600) * 100 = 10.5\%$ (i.e. a 10.5% decrease in Scope 1 and 2 emissions).
Change in methodology		<Not Applicable >		No change
Change in boundary		<Not Applicable >		No change
Change in physical operating conditions		<Not Applicable >		No change
Unidentified		<Not Applicable >		
Other		<Not Applicable >		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 60% but less than or equal to 65%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	No
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	1791749	106516238	108307987
Consumption of purchased or acquired electricity	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	1791749	106516238	108307987

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Bituminous Coal

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

9122104

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

93.28

Unit

kg CO2 per million Btu

Emissions factor source

U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors - Emission Factors for GHG Inventories - (Last Modified 3/9/2018) Table 1 - Stationary Combustion - Bituminous Coal

Comment

11 g CH4/MMBtu and 1.6 g N2O/MMBtu used as well to calculate total CO2e emissions.

Fuels (excluding feedstocks)

Subbituminous Coal

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

80939625

MWh fuel consumed for self-generation of electricity

2905474

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

97.17

Unit

kg CO2 per million Btu

Emissions factor source

U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors - Emission Factors for GHG Inventories - (Last Modified 3/9/2018) Table 1 - Stationary Combustion - Sub-bituminous Coal

Comment

11 g CH4/MMBtu and 1.6 g N2O/MMBtu used as well to calculate total CO2e emissions.

Fuels (excluding feedstocks)

Petroleum Coke

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

2550769

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

102.41

Unit

kg CO2 per million Btu

Emissions factor source

U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors - Emission Factors for GHG Inventories - (Last Modified 3/9/2018) Table 1 - Stationary Combustion - Petroleum Coke (Solid)

Comment

32 g CH4/MMBtu and 4.2 g N2O/MMBtu used as well to calculate total CO2e emissions.

Fuels (excluding feedstocks)

Fuel Oil Number 2

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

254031

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

66090

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

73.96

Unit

kg CO2 per million Btu

Emissions factor source

U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors - Emission Factors for GHG Inventories - (Last Modified 3/9/2018) Table 1 - Stationary Combustion CO2 - Distillate Fuel Oil No. 2

Comment

The MWh fuel consumed for self-generation of heat is for transportation (vehicles/heavy machinery). 3.0 g CH4/MMBtu and 0.60 g N2O/MMBtu used as well to calculate total CO2e emissions.

Fuels (excluding feedstocks)

Fuel Oil Number 6

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

251

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

75.1

Unit

kg CO2 per million Btu

Emissions factor source

U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors - Emission Factors for GHG Inventories - (Last Modified 3/9/2018) Table 1 - Stationary Combustion - Residual Fuel Oil No. 6

Comment

3.0 g CH4/MMBtu and 0.60 g N2O/MMBtu used as well to calculate total CO2e emissions.

Fuels (excluding feedstocks)

Natural Gasoline

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

11074925

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

53.06

Unit

kg CO2 per million Btu

Emissions factor source

U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors - Emission Factors for GHG Inventories - (Last Modified 3/9/2018) Table 1 - Stationary Combustion - Natural Gas

Comment

1.0 g CH4/MMBtu and 0.10 g N2O/MMBtu used as well to calculate total CO2e emissions.

Fuels (excluding feedstocks)

Coke Oven Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

2342277

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

46.85

Unit

kg CO2 per million Btu

Emissions factor source

U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors - Emission Factors for GHG Inventories - (Last Modified 3/9/2018) Table 1 - Stationary Combustion - Coke Oven Gas

Comment

0.48 g CH4/MMBtu and 0.10 g N2O/MMBtu used as well to calculate total CO2e emissions.

Fuels (excluding feedstocks)

Blast Furnace Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

104875

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

274.32

Unit

kg CO2 per million Btu

Emissions factor source

U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors - Emission Factors for GHG Inventories - (Last Modified 3/9/2018) Table 1 - Stationary Combustion - Blast Furnace Gas

Comment

0.022 g CH4/MMBtu and 0.10 g N2O/MMBtu used as well to calculate total CO2e emissions.

Fuels (excluding feedstocks)

Solid Biomass Waste

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

236277

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

105.51

Unit

kg CO2 per million Btu

Emissions factor source

U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors - Emission Factors for GHG Inventories - (Last Modified 3/9/2018) Table 1 - Stationary Combustion - Solid Byproducts

Comment

32 g CH4/MMBtu and 4.2 g N2O/MMBtu used as well to calculate total CO2e emissions.

Fuels (excluding feedstocks)

Wood

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

1555472

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

93.8

Unit

kg CO2 per million Btu

Emissions factor source

U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors - Emission Factors for GHG Inventories - (Last Modified 3/9/2018) Table 1 - Stationary Combustion - Wood and Wood Residuals

Comment

7.2 g CH4/MMBtu and 3.6 g N2O/MMBtu used as well to calculate total CO2e emissions.

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

61243

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

70.22

Unit

kg CO2 per million Btu

Emissions factor source

U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors - Emission Factors for GHG Inventories - (Last Modified 3/9/2018) Table 1 - Stationary Combustion CO2 - Motor Gasoline

Comment

The MWh fuel consumed for self-generation of heat is for transportation (vehicles/heavy machinery). 3.0 g CH4/MMBtu and 0.60 g N2O/MMBtu used as well to calculate total CO2e emissions.

Fuels (excluding feedstocks)

Kerosene

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

75.2

Unit

kg CO2 per million Btu

Emissions factor source

U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors - Emission Factors for GHG Inventories - (Last Modified 3/9/2018) Table 1 - Stationary Combustion CO2 - Kerosene

Comment

The MWh fuel consumed for self-generation of heat is for transportation (vehicles/heavy machinery). 3.0 g CH4/MMBtu and 0.60 g N2O/MMBtu used as well to calculate total CO2e emissions.

Fuels (excluding feedstocks)

Bioethanol

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

48

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

68.44

Unit

kg CO2 per million Btu

Emissions factor source

U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors - Emission Factors for GHG Inventories - (Last Modified 3/9/2018) Table 1 - Stationary Combustion - Ethanol

Comment

The MWh fuel consumed for self-generation of heat is for transportation (vehicles/heavy machinery). 1.1 g CH4/MMBtu and 0.11 g N2O/MMBtu used as well to calculate total CO2e emissions.

Fuels (excluding feedstocks)

Compressed Natural Gas (CNG)

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

53.06

Unit

kg CO2 per million Btu

Emissions factor source

U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors - Emission Factors for GHG Inventories - (Last Modified 3/9/2018) Table 1 - Stationary Combustion - Natural Gas Converted from MMBtu/scf to MMBtu/gallon

Comment

The MWh fuel consumed for self-generation of heat is for transportation (vehicles/heavy machinery). 1.0 g CH4/MMBtu and 0.10 g N2O/MMBtu used as well to calculate total CO2e emissions.

C-EU8.2d

(C-EU8.2d) For your electric utility activities, provide a breakdown of your total power plant capacity, generation, and related emissions during the reporting year by source.

Coal – hard**Nameplate capacity (MW)**

5265

Gross electricity generation (GWh)

28989

Net electricity generation (GWh)

26724

Absolute scope 1 emissions (metric tons CO2e)

31045335

Scope 1 emissions intensity (metric tons CO2e per GWh)

1161.71

Comment**Lignite****Nameplate capacity (MW)**

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Not applicable.

Oil**Nameplate capacity (MW)**

325

Gross electricity generation (GWh)

5

Net electricity generation (GWh)

2

Absolute scope 1 emissions (metric tons CO2e)

63916

Scope 1 emissions intensity (metric tons CO2e per GWh)

9999

Comment

Scope 1 emissions intensity was out of range and could therefore not be entered. Actual Scope 1 emissions intensity is 36,988.37 metric tons CO2e per GWh. Oil provides a very small portion of fuel for generation (less than 1%) and this high intensity number likely represents measurement inconsistencies related to the amount of generation actually produced from oil.

Gas**Nameplate capacity (MW)**

2946

Gross electricity generation (GWh)

2624

Net electricity generation (GWh)

2526

Absolute scope 1 emissions (metric tons CO2e)

1504339

Scope 1 emissions intensity (metric tons CO2e per GWh)

595.61

Comment**Biomass****Nameplate capacity (MW)**

321

Gross electricity generation (GWh)

454

Net electricity generation (GWh)

454

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Biomass emissions are assumed to be carbon neutral resulting in zero scope 1 emissions.

Waste (non-biomass)**Nameplate capacity (MW)**

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Not applicable.

Nuclear**Nameplate capacity (MW)**

1161

Gross electricity generation (GWh)

10315

Net electricity generation (GWh)

9886

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

There are zero emissions from the nuclear power plant. Therefore Scope 1 emissions intensity is 0 metric tons CO2e per GWh.

Fossil-fuel plants fitted with CCS**Nameplate capacity (MW)**

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Not applicable.

Geothermal**Nameplate capacity (MW)**

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Not applicable.

Hydropower**Nameplate capacity (MW)**

1088

Gross electricity generation (GWh)

21

Net electricity generation (GWh)

21

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

There are zero emissions from the Ludington Pumped Storage Facility. Therefore Scope 1 emissions intensity is 0 metric tons CO2e per GWh.

Wind**Nameplate capacity (MW)**

611

Gross electricity generation (GWh)

3183

Net electricity generation (GWh)

3183

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

There are zero emissions from wind energy sources. Therefore Scope 1 emissions intensity is 0 metric tons CO2e per GWh.

Solar**Nameplate capacity (MW)**

65

Gross electricity generation (GWh)

77

Net electricity generation (GWh)

77

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

There are zero emissions from solar energy sources. Therefore Scope 1 emissions intensity is 0 metric tons CO2e per GWh.

Marine**Nameplate capacity (MW)**

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Not applicable.

Other renewable**Nameplate capacity (MW)**

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Not applicable.

Other non-renewable**Nameplate capacity (MW)**

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Not applicable.

Total

Nameplate capacity (MW)

11781

Gross electricity generation (GWh)

45669

Net electricity generation (GWh)

42873

Absolute scope 1 emissions (metric tons CO2e)

32613591

Scope 1 emissions intensity (metric tons CO2e per GWh)

761

Comment

C-EU8.4

(C-EU8.4) Does your electric utility organization have a transmission and distribution business?

Yes

C-EU8.4a

(C-EU8.4a) Disclose the following information about your transmission and distribution business.

Country/Region

United States of America

Voltage level

Distribution (low voltage)

Annual load (GWh)

44940

Annual energy losses (% of annual load)

6.82

Scope where emissions from energy losses are accounted for

Scope 2 (location-based)

Emissions from energy losses (metric tons CO2e)

1836800

Length of network (km)

76465

Number of connections

2200000

Area covered (km2)

52620

Comment

DTE Electric Company has approximately 2.2 million residential, commercial, and industrial customers in southeastern Michigan. CO2-e emissions calculated using EPA eGRID emission factor for RFC Michigan.

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Waste

Metric value

Metric numerator

30% reduction in waste by 2022 from DTE facilities

Metric denominator (intensity metric only)

% change from previous year

Direction of change

<Not Applicable>

Please explain

Description

Other, please specify (Water usage reduction)

Metric value

Metric numerator

35% reduction in municipal water use by 2022

Metric denominator (intensity metric only)

% change from previous year

Direction of change

<Not Applicable>

Please explain

C-EU9.5a

(C-EU9.5a) Break down, by source, your total planned CAPEX in your current CAPEX plan for power generation.

Primary power generation source	CAPEX planned for power generation from this source	Percentage of total CAPEX planned for power generation	End year of CAPEX plan	Comment
Gas	1000000000	33.3	2024	DTE Electric's capital investments over the 2020-2024 period are estimated \$3.0 billion for new generation.
Other, please specify (Wind and solar renewable energy)	2000000000	66.6	2024	DTE Electric's capital investments over the 2020-2024 period are estimated \$3.0 billion for new generation.

C-EU9.5b

(C-EU9.5b) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
Other, please specify (Infrastructure resilience and hardening)	Electric distribution infrastructure resilience and hardening, redesign, and automation and technology.	2000000000	33	2024

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	Adoption of electric vehicles (EVs) and deployment of charging infrastructure in Michigan lags that of other states . This inhibits the benefits EVs can provide to DTE customers, the grid, and Michigan. On May 2, 2019, the Michigan Public Service Commission (MPSC) approved the \$13.1 million Charging Forward program proposed by DTE. The Charging Forward program components approved by the MPSC include Customer Education and Outreach, Residential Smart Charger Support, and Charging Infrastructure Enablement. Based on feedback from stakeholders since approval, additional program components have also been folded into Charging Forward activities, including an EV-Grid Impact Study, an EV-Ready Builder Rebate pilot, and a residential off-peak charging pilot (Bring Your Own Charger). After including the other EV pilots and additional program components (totaling \$1.0 million), the overall Charging Forward program now totals \$14.2 million.

C-CO9.6a/C-EU9.6a/C-OG9.6a

(C-CO9.6a/C-EU9.6a/C-OG9.6a) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Other, please specify (EV charging programs and infrastructure)	Pilot demonstration	≤20%	1092000	The nearly \$1.1 million investment includes total program costs of which the following pilots will be researched and tested: 1. EV-Ready Builder Rebate - Test rebates to builders or electricians to "future-proof" new homes for Level 2 EV chargers by installing the wiring for 240V outlets at a much cheaper cost than retrofitting. 2. Demand Response - Analyze customer behavior and peak demand shaving value based on different times, incentives, etc. 3. ChargeD - Learn more about fast charging station utilization and potential for use as an education and outreach platform. 4. Battery- Powered Fast Charging - Determine charge/discharge impact on battery life and business cases for use. 5. EV-Grid Impact Study - Simulate load impacts on our distribution system at varying degrees of EV adoption. 6. Extreme Fast Charging - Test and develop fast charging capabilities up to 400 kW. 7. EV-Only TOU Rate - Identify and pilot a technology capable of billing an EV-only time-of-use rate without the use of a second meter.
Renewable energy	Applied research and development	≤20%		Electric Power Research Institute (EPRI) participation in the Renewable Energy Program
Distributed energy resources	Applied research and development	≤20%		Electric Power Research Institute (EPRI) participation in the Integration of Distributed Energy Resources Program.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

High assurance

Attach the statement

Submission Summary 2019.pdf

Submission Summary 2020.pdf

Page/ section reference

All pages: Summary of 2019 required submissions to U.S. Environmental Protection Agency for reporting of emissions from continuous emission monitors (CEMs) for each DTE Electric fossil generation unit required to install a CEM system under 40 CFR Part 75. These electronic submissions include a summary of emissions, required monitoring plans, and quality assurance certifications. These submissions are signed off by the Vice President of Fossil Generation, DTE's Designated Representative.

Relevant standard

Other, please specify (EPA Continuous Emission Monitoring (CEM), data validation and reporting requirements under 40 CFR 75.)

Proportion of reported emissions verified (%)

84

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, we do not verify any other climate-related information reported in our CDP disclosure

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase

Credit origination

Project type

Methane avoidance

Project identification

DTE Biomass Energy (DTEBE) partners with landfill owners and dairy farmers across the country to produce marketable, renewable transportation fuel by extracting and utilizing landfill and agricultural waste gas. The gas produced by DTEBE is sold to off-takers along with its low carbon attributes for use as low carbon transportation fuel. In 2019, DTE generated more than 22,800 metric tons of California Low Carbon Fuel Standard (LCFS) credits and more than 22 million CNG gallons of renewable fuels recorded under the U.S. Renewable Fuel Standard program as Renewable Identification Numbers (RIN).

Verified to which standard

Other, please specify (California Low Carbon Fuel Standard (LCFS))

Number of credits (metric tonnes CO2e)

22836

Number of credits (metric tonnes CO2e): Risk adjusted volume

22836

Credits cancelled

Not relevant

Purpose, e.g. compliance

Other, please specify (End user compliance)

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Other, please specify (Integrated Resource Plan scenario planning and for an internal reference case which we update annually.)

GHG Scope

Scope 1

Application

DTE Electric's Integrated Resource Plan (IRP): Carbon Price: For the 2019 IRP, the Reference scenario's starting point has a \$5/ton price for carbon in 2025, which reaches \$10/ton in 2040 (real \$2017). The Business as Usual (BAU), Emerging Technology (ET) and Environmental Policy (EP) scenarios' starting points have a constant \$0/ton carbon price across all years. There was a carbon-price sensitivity on the EP scenario to achieve 50 percent carbon reduction by 2030. This sensitivity applied a \$20/ton carbon price in 2030. For our most recent internal reference case updated in 2020, the carbon price has a \$4/ton (nominal) price for carbon in 2025, which reaches \$12/ton in 2040 (nominal).

Actual price(s) used (Currency /metric ton)

4.5

Variance of price(s) used

We use a range of prices depending upon the scenario and/or sensitivities being modeled, for example the IRP sensitivity analysis applied prices from \$5/ton to \$20/ton.

Type of internal carbon price

Shadow price

Impact & implication

Carbon prices may be applied to achieve a desired carbon reduction goal, such as the carbon sensitivity on the Environmental Policy scenario in the Integrated Resource plan that applied a \$20/ton carbon price in 2030 to achieve a 50 percent carbon reduction. Each year DTE Electric puts together an internal reference case that is updated annually. For the integrated resource plan, we use several scenarios that are required as well as our most recent internal reference case. The integrated resource plan typically has several scenarios and sensitivities. Sensitivities, as compared to scenarios, are generally designed to test one specific uncertainty. The Michigan IRP Parameters of 2016 Public Act 341 provided us with required sensitivities. Each scenario has a starting point with no sensitivities applied. Then, each sensitivity is applied to the appropriate scenarios. One sensitivity is carbon price as described below. Carbon Price: For the 2019 IRP, Reference scenario's starting point has a \$5/ton price for carbon in 2025, which reaches \$10/ton in 2040 (real \$2017). The Business as Usual (BAU), Emerging Technology (ET) and Environmental Policy (EP) scenarios' starting points have a constant \$0/ton carbon price across all years. There was a carbon-price sensitivity on the EP scenario to achieve 50 percent carbon reduction by 2030. This sensitivity applied a \$20/ton carbon price in 2030. For our most recent internal reference case updated in 2020, the carbon price has a \$4/ton (nominal) price for carbon in 2025, which reaches \$12/ton in 2040 (nominal).

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

- Yes, our suppliers
- Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

40

% total procurement spend (direct and indirect)

40

% of supplier-related Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

The proportion of suppliers that receive surveys corresponds to approximately 40% of total non-regulated procurement spend. Suppliers are selected for engagement based on the following criteria: If the supplier has a DTE Supplier Performance Management (SPM) scorecard, if they are a top 100 supplier for DTE spend, or if a DTE sustainability team member's business unit requests that the supplier take the survey. Suppliers are requested to report on energy use and emission information to measure success of actions and identify areas of improvement throughout DTE's supply chain.

Impact of engagement, including measures of success

DTE is part of the Electric Utility Industry Sustainable Supply Chain Alliance (EUISSCA), an organization of utilities and suppliers collaborating to advance sustainability best practices in supply chain activities and supplier networks. Energy use and emissions for suppliers are self-reported via The Sustainability Project (TSP) supplier survey tool, which was launched in 2018. Success is measured through changes in energy use and emissions reported by the supplier.

Comment

We do not calculate Scope 3 emissions for purchased goods and services as indicated in our response to Question C6.5.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

100

% total procurement spend (direct and indirect)

92

% of supplier-related Scope 3 emissions as reported in C6.5

0

Rationale for the coverage of your engagement

DTE Energy is taking action to encourage our natural gas suppliers to reduce their climate impacts. These actions include encouraging our suppliers and peers to report using the Natural Gas Sustainability Initiative guidelines established by the Edison Electric Institute and American Gas Association in an effort to enhance transparency and emissions reporting consistency throughout the natural gas industry. As an active member of the Natural Gas Supplier Collaborative (NGSC), DTE is also working with our industry partners to: -Benchmark the environmental attributes of our natural gas supply portfolios -Evaluate natural gas certification programs and innovative methane measurement technologies -Discuss regional policy solutions -Engage Natural Gas producers and marketers to help us address the challenges with transparency throughout the gas purchasing process In 2019 DTE surveyed our natural gas suppliers to identify their efforts to monitor and reduce methane emissions during production. DTE also collected EPA emissions data for the production basins we purchase from to estimate relative methane emissions and make more informed purchasing decisions in the future. DTE is planning discussions with the Michigan Public Services Commission about incorporating supplier methane emissions levels into its gas procurement process

Impact of engagement, including measures of success

We received responses from 6 of 12 suppliers on our 2019 natural gas supplier survey. The 12 suppliers represent 92 percent of our gas supply costs. We utilize the NGSC sustainability performance disclosures to help us evaluate the environmental performance of suppliers, including supplier disclosures of methane emissions and/or intensity.

Comment

In June 2020, DTE Gas announced a holistic net zero goal that includes achieving net zero emissions from DTE's natural gas suppliers by 2050. The goal will require DTE to develop a supplier tracking mechanism to track supplier's greenhouse gas emissions. We do not calculate Scope 3 emissions for our natural gas suppliers in our response to Question C6.5.

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

% of customers by number

36

% of customer - related Scope 3 emissions as reported in C6.5

0

Portfolio coverage (total or outstanding)

<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement

DTE Energy engages DTE Electric customers on reducing GHG emissions and related climate issues by offering numerous programs to help customers save energy and purchase clean energy. These programs are available to all customers, of which approximately 36 percent of DTE Electric customers participated in 2019. Methods for reaching customers include direct advertising, website offerings, e-mails, social media, bill inserts, event sponsorships, and free subscriptions to tailored energy publications, among others. Programs that enable customers to improve energy efficiency and reduce energy receive priority as they support energy efficiency goals mandated by state legislation. DTE's Energy Waste Reduction programs are designed to help reduce customers' energy use by increasing customer awareness of energy saving possibilities, and providing products and services such as rebates, tips, tools, strategies and energy efficiency education to help customers make informed energy saving decisions. Many of the programs in 2019 were continuations of programs launched in 2009, although some minor program adjustments were implemented. DTE continually works to offer EWR programs that assure all customer segments are encouraged to participate. Programs are designed to capture both electric and natural gas savings.

Impact of engagement, including measures of success

The success of DTE's programs are measured by verified energy savings reported annually to the Michigan Public Service Commission. In 2019 the DTE Electric EWR programs produced verified net energy savings of 717 GWh electricity and 1,841 MMcf of natural gas through the various program offerings. These savings were well above the minimum required by Michigan's Clean, Renewable and Efficient Energy Act, also known as Public Act 295 (PA 295), as amended by Public Act 342 of 2016. In 2019 794,829 residential and commercial and industrial customers out of an approximate total of 2.2 million customers participated in the DTE Electric EWR program, or about 36 percent of DTE Electric customers. The 2019 avoided emissions as a result of the DTE Electric EWR programs are 507,210 metric tons. These EWR programs help to reduce Scope 1 emissions for DTE Electric.

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

% of customers by number

41

% of customer - related Scope 3 emissions as reported in C6.5

0.8

Portfolio coverage (total or outstanding)

<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement

DTE Energy engages DTE Gas customers on reducing GHG emissions and related climate issues by offering numerous programs to help customers save energy and purchase clean energy. These programs are available to all customers, of which approximately 41 percent of DTE Gas customers participated in 2019. Methods for reaching customers include direct advertising, website offerings, e-mails, social media, bill inserts, event sponsorships, and free subscriptions to tailored energy publications, among others. Programs that enable customers to improve energy efficiency and reduce energy receive priority as they support energy efficiency goals mandated by state legislation. DTE's Energy Waste Reduction programs are designed to help reduce customers' energy use by increasing customer awareness of energy saving possibilities, and providing products and services such as rebates, tips, tools, strategies and energy efficiency education to help customers make informed energy saving decisions. Many of the programs in 2018 were continuations of programs launched in 2009, although some minor program adjustments were implemented. DTE continually works to offer EWR programs that assure all customer segments are encouraged to participate. Programs are designed to capture both electric and natural gas savings.

Impact of engagement, including measures of success

The success of DTE's programs are measured by verified energy savings reported annually to the Michigan Public Service Commission. In 2019 the DTE Gas EWR programs produced verified net energy savings of 717 GWh electricity and 1,841 MMcf of natural gas through the various program offerings. These savings were well above the minimum required by Michigan's Clean, Renewable and Efficient Energy Act, also known as Public Act 295 (PA 295), as amended by Public Act 342 of 2016. In 2019 530,000 residential and commercial and industrial customers out of an approximate total of 1.3 million customers participated in the DTE Gas EWR program, or about 41 percent of DTE Gas customers. The 2019 avoided emissions as a result of the DTE Gas EWR programs are 100,104 metric tons, which represents less than 1 percent of the Scope 3 emissions reported in C6.5 from downstream use of natural gas by DTE Gas customers. These EWR programs help to reduce Scope 1 and Scope 3 emissions for DTE Gas.

Type of engagement

Other, please specify

Details of engagement

Other, please specify (Renewable energy offerings to customers)

% of customers by number

0.45

% of customer - related Scope 3 emissions as reported in C6.5

Portfolio coverage (total or outstanding)

<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement

As described in our response to Question 2.4a, DTE Energy offers clean energy (renewable) products to both electric and gas customers: MIGreenPower is DTE Energy's voluntary renewable energy program. These programs are available to all customers, of which less than 1 percent of DTE customers participated in 2019. Customers that enroll in MIGreenPower support the generation of electricity from Michigan-based, renewable energy sources. MIGreenPower is a Green-e Energy certified renewable energy program. Green-e Energy™ is the nation's leading independent certification and verification program for renewable energy and greenhouse gas emission reductions in the retail market.

Impact of engagement, including measures of success

Enrollment in MIGreen Power at the end 2019 was 10,000 out of 2.2 million customers . In 2019, MIGreenPower subscribers supported a total of 28.7 million kWh of renewable energy, which is the greenhouse gas benefit equivalent to planting 335,533 tree seedlings and allowing them to grow for 10 years, and offsetting 20,292 metric tons of carbon dioxide in our atmosphere. Since the inception of MIGreenPower, Michiganders have supported 53 million kWh of clean energy development in Michigan. We don't report the Scope 3 emissions from electricity delivered to DTE Electric's customers.

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

- Direct engagement with policy makers
- Trade associations
- Funding research organizations
- Other

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Other, please specify (Cap and Trade)	Support with minor exceptions	DTE Energy participated in advocacy related to cap-and-trade legislation before the U.S. Congress in 2009 and 2010. Legislative initiatives to reduce greenhouse gases gave way to Executive Branch proposals under the Obama Administration. Many of the Obama era rules are now being considered for repeal or replacement by the Trump Administration.	DTE generally supports national policy to address the nation's energy future. This can be achieved in different ways, the details of the approach being key. The policy must provide a reasonable timeframe for transition of existing generation fleets and assure a reasonable cost on customers. It should also provide flexibility to various regions of the U.S. allowing for particular differences.
Carbon tax	Neutral	DTE Energy has tracked and monitored executive branch-level discussions as well as learning sessions by some members of Congress on the potential for a carbon tax. DTE Energy has also tracked the various proposals that have emanated from research organizations. The company will continue to be engaged as new Congressional and other proposals are presented.	DTE generally supports national policy to address the nation's energy future. This can be achieved in different ways, the details of the approach being key. The policy must provide a reasonable timeframe for transition of existing generation fleets and assure a reasonable cost on customers. It should also provide flexibility to various regions of the U.S. allowing for particular differences.
Energy efficiency	Support	DTE Energy has closely tracked energy efficiency legislation at the federal level and supports energy conservation measures. DTE Energy also monitors the research and development of efficiency technologies.	DTE generally supports national policy to address the nation's energy future. This can be achieved in different ways, the details of the approach being key. The policy must provide a reasonable timeframe for transition of existing generation fleets and assure a reasonable cost on customers. It should also provide flexibility to various regions of the U.S. allowing for particular differences.
Energy efficiency	Support	DTE Energy supported Michigan Public Act (PA) 342 of 2016, that continues the energy waste reduction requirements for electric and gas providers in Michigan that began in 2009. The standards went into effect in 2009, and ramped up gradually to the current level. The standards will remain at this level in perpetuity unless superseded by future legislation, or suspended by the Michigan Public Service Commission.	The 2016 legislation requires electric providers to achieve incremental energy savings of 1.0% to total electricity sales through 2021. Natural gas providers must achieve incremental energy savings of 0.75% per year. The policy must provide a reasonable timeframe for transition of existing fleets and assure a reasonable cost on customers.
Clean energy generation	Support with minor exceptions	DTE Energy is supportive of a national clean or renewable energy standard, as long as it allows for flexibility to match a state's renewable and clean energy potential. DTE Energy believes that renewable energy is a vital part of the energy mix to meet Michigan's future energy needs and DTE Energy has been investing in renewables to benefit DTE Energy's customers and the environment.	States are better suited to enact clean energy legislation due to state and regional differences in the availability of clean energy resources. GHG policies are still under development. DTE generally supports national policy to address the nation's energy future. This can be achieved in different ways, the details of the approach being key. The policy must provide a reasonable timeframe for transition of existing generation fleets and assure a reasonable cost on customers. It should also provide flexibility to various regions of the U.S. allowing for particular differences.
Clean energy generation	Support	DTE Energy supported Michigan Public Act (PA) 342 of 2016, that requires the Company to obtain 15 percent of our retail sales from qualifying renewable resources by 2021. DTE Energy has already met the requirement to meet the current 10 percent renewable standard.	DTE generally prefers state clean energy policy solutions over national policy to address the nation's energy future. This can be achieved in different ways, the details of the approach being key. The state policy must provide a reasonable time frame for transition of existing generation fleets and assure a reasonable cost on customers. State policies provide flexibility to various regions of the U.S. allowing for particular differences.

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Edison Electric Institute

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

EI member companies are committed to addressing the challenge of climate change and have undertaken a wide range of initiatives over the last 30 years to reduce, avoid or sequester GHG emissions. As of year-end 2019, the electric power sector's carbon dioxide (CO2) emissions were 33 percent below a 2005 baseline. Collectively, EEI's member companies are on a path to reduce carbon emissions at least 80 percent by 2050, compared with peak levels in 2005. An EEI CEO group has also launched a Natural Gas Supplier Initiative - an overarching framework to recognize and advance the innovative, voluntary sustainability programs for natural gas from the wellhead to the burner tip. NGSI enables the natural gas industry to measure, disclose, and recognize industry-wide progress and innovation on key sustainability metrics.

How have you influenced, or are you attempting to influence their position?

DTE Energy tracks the activities of all of the associations of which the company is a member. Further, we work to provide input to align trade association positions with DTE Energy's position, and we participate in their advocacy to policy makers to the extent possible.

Trade association

American Gas Association

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The American Gas Association is committed to reducing greenhouse gas emissions through smart innovation, new and modernized infrastructure, and advanced technologies that maintain reliable, resilient, and affordable energy service choices for consumers. In addition, AGA has partnered with EEI on the Natural Gas

Sustainability Initiative that enables the natural gas industry to measure, disclose, and recognize industry-wide progress and innovation on key sustainability metrics.

How have you influenced, or are you attempting to influence their position?

DTE Energy tracks the activities of all of the associations of which the company is a member. Further, we work to provide input to align trade association positions with DTE Energy's position, and we participate in their advocacy to policy makers to the extent possible.

Trade association

Nuclear Energy Institute

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

NEI's mission is to promote the use and growth of nuclear energy through efficient operations and effective policy. NEI promotes nuclear technology by helping the industry: -Preserve existing nuclear reactors across the country -Make regulations smarter -Build new, next-generation reactors -Compete in the global nuclear energy market We believe that a thriving nuclear energy industry will lead to: -Stronger national security -Climate change mitigation -U.S. technology leadership -Robust infrastructure -Job growth -Pristine air quality -Sustainable development worldwide -Clean electricity for technology like electric vehicles

How have you influenced, or are you attempting to influence their position?

DTE Energy tracks the activities of all of the associations of which the company is a member. Further, we work to provide input to align trade association positions with DTE Energy's position, and we participate in their advocacy to policy makers to the extent possible.

Trade association

Interstate Natural Gas Association of America

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Climate change is an important issue. Increased use of natural gas is helping to combat climate change by lowering carbon dioxide emissions. While U.S. gas production is up 37 percent since 1990, greenhouse gas emissions are down 17 percent. Because natural gas is made of methane, a potent greenhouse gas, the natural gas industry is hard at work lowering those emissions. Minimizing methane emissions remains a top priority for INGAA member companies. Many INGAA members participate in voluntary programs and initiatives focused on minimizing methane emissions, communication and collaboration across the natural gas value chain, and driving new and innovative technologies and processes. Members of INGAA commit to continuously improving practices to minimize methane emissions from interstate natural gas transmission and storage operations in a prudent and environmentally responsible manner.

How have you influenced, or are you attempting to influence their position?

DTE Energy tracks the activities of all of the associations of which the company is a member. Further, we work to provide input to align trade association positions with DTE Energy's position, and we participate in their advocacy to policy makers to the extent possible.

Trade association

CEO Climate Dialogue The CEO Climate Dialogue (CEO Dialogue) is a group of 21 companies with over \$1.4 trillion in combined annual revenue and 4 leading environmental nonprofit organizations that are committed to advancing climate action and durable federal climate policy in the U.S. Congress. The goal of the group is to urge the President and Congress to enact a market-based approach to climate change in accordance with a set of six Guiding Principles for climate legislation. We believe it is urgent that the President and Congress put in place a long-term federal policy as soon as possible to protect against the worst impacts of climate change. Acting sooner rather than later allows us to meet the climate challenge at the least possible cost and put the required investments in place in time to meet the necessary emissions targets.

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Adherence to the full set of the following principles can help ensure success: 1. Significantly reduce U.S. greenhouse gas emissions so that the U.S. is demonstrably a leader on global efforts to effectively limit climate change. Specifically, U.S. policy should ensure the country is on a path to achieve economy-wide emissions reductions of 80% or more by 2050 with aggressive near and mid-term emission reductions commensurate with this goal. 2. Effective: A key test of any climate policy is whether it will deliver timely emissions reductions across the economy and includes mechanisms that provide certainty that emission goals are met. The timeline for reductions must allow capital intensive industries to adjust in an economically rational manner. Policies must encourage investment and planning decisions consistent with the timeframes needed. Policies must focus on emissions reductions outcomes, not specific resources or technologies. 3. Market-based: An economy-wide price on carbon is the best way to use the power of the market to achieve carbon reduction goals, in a simple, coherent and efficient manner. We desire to do this at the least cost to the economy and households. Markets will also spur innovation, and create and preserve quality jobs in a growing low-carbon economy. 4. Durable and responsive: Well-designed and stable policies will deliver predictable results and increase public support over time, providing durability across time and political cycles. Policies should be adaptive over time in terms of pace and scope of reductions as our understanding of climate change, policy impact, and technological changes evolves. 5. Do no harm: Policies must support the competitiveness of the U.S. economy. Policies must address emissions leakage that can undermine climate objectives. Policies must also safeguard against negative impacts on biodiversity, land and water. 6. Promote equity: Unabated climate change is a major threat to the U.S. economy. Therefore, policies to address climate change, which may also entail some cost, must provide transparency and promote affordability while distributing costs and benefits in such a way that promotes equity. Policies must include mechanisms to invest in American workers, and in disadvantaged communities that have the least resources to manage the costs of climate change.

How have you influenced, or are you attempting to influence their position?

DTE Energy's CEO has been involved since the inception of the CEO Climate Dialogue and worked to influence the six guiding principles.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

No

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

DTE Energy is a member of numerous councils, organizations and collaboratives that conduct research to advance knowledge and deploy solutions in areas related to climate mitigation and adaptation. Organizations of which DTE is a participating member include:

- Carbon Capture Coalition - facilitated by the Great Plains Institute
- Center for Climate and Energy Solutions' (C2ES) Business Environmental Leadership Council (BELC)
- Electric Power Research Institute (EPRI) programs related to climate and sustainability
- Gulf Coast Carbon Collaborative - facilitated by U.S. Business Council for Sustainable Development
- Midcontinent Power Sector Collaborative - facilitated by the Great Plains Institute
- Midcontinent Transportation Electrification Collaborative - facilitated by the Great Plains Institute
- Natural Gas Downstream Initiative - facilitated by MJ Bradley
- Natural Gas Supply Collaborative - facilitated by MJ Bradley

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Climate change policy, initiatives, and mandatory requirements are managed by the Vice President, Environmental in conjunction with other key leaders of DTE business units and the DTE Vice President, Corporate Strategy. The VP, Environmental, in conjunction with business unit peers, reports on key environmental issues to the DTE Energy President and Chief Executive Officer (CEO) during monthly (or more frequent) meetings of the Government, Regulatory, and Community (GRC) Committee. Major recommendations related to corporate environmental strategies, including climate change, are developed by this Committee. Direct and indirect activities with trade organizations, research groups, and other stakeholders that influence policy are taken into account in developing recommendations by the GRC.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In voluntary sustainability report

Status

Complete

Attach the document

2020-DTE Environmental-Social-Governance-and-Sustainability-Report.pdf

Page/Section reference

The entire document contains information pertaining to governance, strategy, risks & opportunities, emissions figures, emissions targets, and other metrics.

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

The attached document is DTE's 2020 ESG Sustainability Report completed in accordance with the EEI/AGA ESG Template.

Publication

In voluntary sustainability report

Status

Underway – previous year attached

Attach the document

GRI Report 2019 - Final.pdf

Page/Section reference

Pages 21-27 provide environmental figures and targets, including data for energy, water, biodiversity, emissions, effluents & waste, and environmental compliance. Governance and strategy information is included in the GRI 102: GENERAL DISCLOSURES section.

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

At time of submission, the 2020 ESG and Sustainability Report in accordance with Global Reporting Initiative standards was not yet finalized and published on the DTE website. The 2019 report is attached for reference.

Publication

In other regulatory filings

Status

Complete

Attach the document

DTE 2019 IRP_Summary.pdf

Page/Section reference

Governance, strategy, risks & opportunities, emissions targets, and other metrics are included throughout the entire document.

Content elements

- Governance
- Strategy
- Risks & opportunities
- Emission targets
- Other metrics

Comment

The attached document summarizes the Integrated Resource Plan (IRP) that was submitted to the Michigan Public Service Commission in March 2019.

Publication

In other regulatory filings

Status

Complete

Attach the document

DTE 2019 10K.pdf

Page/Section reference

The entire document contains information about governance, strategy, risks & opportunities, emissions targets, and other metrics.

Content elements

- Governance
- Strategy
- Risks & opportunities
- Emission targets
- Other metrics

Comment

The attached document is the United States Securities and Exchange Commission annual Form 10-K.

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Vice President, Environmental Management and Safety	Other, please specify (Vice President, Environmental Management & Safety)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

DTE Energy provides electricity and natural gas to customers in our DTE Electric and DTE Gas service territories in Michigan. The annual average GHG emissions per KWh of electricity or per standard cubic feet (scf) of natural gas can be calculated by customers using emission factors provided by EPA. DTE Electric also provides an estimate of GHG intensity of electricity delivered to our customers in the EEI Electric Company Carbon Emissions and Electricity Mix Reporting Database which is available to customers of for use in calculating their Scope 2 emissions: <https://www.eei.org/Pages/CO2Emissions.aspx>

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	12669000000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	US	2333311072

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Customer base is too large and diverse to accurately track emissions to the customer level	DTE Energy provides two commodities to customers: Electricity and Natural Gas. Emissions from customer energy use can be calculated by applying emission factors to each customer's total energy usage. We do not see a need at this time to allocate emissions to customers when estimated emissions can be calculated by the customer.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

No

SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

DTE Energy provides electricity and gas to our customers. The GHG emissions from the electricity delivered by DTE Electric to our customers can be calculated using EPA's e-GRID emission factors for electricity purchased off of the energy grid or by using an estimate of GHG intensity of electricity delivered to our customers in the EEI Electric Company Carbon Emissions and Electricity Mix Reporting Database which is available to customers for use in calculating their Scope 2 emissions: <https://www.eei.org/Pages/CO2Emissions.aspx>, or based on contracts and/or bilateral agreements with electricity providers such as renewable or other low-carbon energy providers.

Customers can calculate emissions from DTE Gas deliveries using the volume of gas delivered and billed by DTE Gas times an emission factor for natural gas provided by EPA or other sources.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

Yes

SC2.2a

(SC2.2a) Specify the requesting member(s) that have driven organizational-level emissions reduction initiatives, and provide information on the initiatives.

Requesting member

General Motors Company

Initiative ID

2020-ID1

Group type of project

Other, please specify (Procurement of renewable energy)

Type of project

Other, please specify (Investment in renewable energy generation)

Description of the reduction initiative

Addressing climate change must be a cross-industry effort, so we've expanded our MIGreenPower program to our large business and industrial customers. Introduced in 2017, 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 percent. Participating customers see a slight increase in their monthly bill while knowing they're helping to support Michigan's clean energy future. DTE announced with our 2019 Integrated Resource Plan that we're expanding this voluntary initiative to meet the needs of our largest business and industrial customers who are working to meet their own sustainability goals, enabling them to invest in renewable energy, which will help drive our state toward an even cleaner future. The program is designed to grow and represents a progressive approach to fill market demand. In April 2020, General Motors and DTE Energy announced a deal to source 500,000 megawatt hours of solar energy as part of DTE's MIGreenPower program. This follows an initial investment of 300,000 MWh of wind energy purchased by GM in February 2019, bringing the total amount to more than 800,000 MWh, or the amount of electricity consumed by more than 100,000 homes in an average year. GM's investment in MIGreenPower should deliver enough clean energy to supply GM's Southeast Michigan facilities by 2023, including the Renaissance Center global headquarters in Detroit, the GM Global Technical Center in Warren, the Milford Proving Ground in Milford and two local assembly plants; Orion and Detroit-Hamtramck, as well as several smaller GM sites across Southeast Michigan. This investment will fund two new DTE solar parks that are currently in development and will be among the largest in the state. GM's initial MIGreenPower commitment was used to fund three wind parks scheduled to achieve commercial operation at the end of 2020. Based on similar projects, DTE expects this investment to support approximately 1,500 clean energy jobs in Michigan during project construction. This investment is in line with GM's accelerated renewable energy commitment to source 100 percent of GM's U.S. facilities with renewable energy by 2030 and global facilities by 2040

Emissions reduction for the reporting year in metric tons of CO2e

Did you identify this opportunity as part of the CDP supply chain Action Exchange?

No

Would you be happy for CDP supply chain members to highlight this work in their external communication?

Yes

SC3.1

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?

No

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2019-2020 Action Exchange initiative?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Investors Customers	Public	Yes, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms