FirstEnergy Corporation - Climate Change 2021

C0. Introduction

C0.1

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

Headquartered in Akron, Ohio, FirstEnergy (FE) is a forward-thinking electric utility powered by a diverse team of employees committed to making customers' lives brighter, the environment better and communities stronger. Our subsidiaries are involved in the transmission, distribution, and regulated generation of electricity.

Our workforce of approximately 12,000 employees is dedicated to safety, reliability and operational excellence. Our 10 electric distribution companies form one of the nation's largest investor-owned electric systems, based on serving more than 6 million customers in Ohio, Pennsylvania, New Jersey, West Virginia, Maryland and New York*. The company's transmission subsidiaries operate approximately 24,000 miles of transmission lines connecting the Midwest and Mid-Atlantic regions. In 2020, FirstEnergy subsidiaries control 3,580 megawatts of generating capacity from two regulated coal plants and one pumped-storage hydro facility.

For the purposes of this CDP report, all financial and emissions information is based on FirstEnergy's 2020 year-end portfolio.

This report contains forward looking statements based on information available to the company. For more information, including our full forward looking statement please visit: https://www.firstenergycorp.com/content/fecorp/investor/engagement.html.

*Penelec has reached an agreement to sell our New York distribution assets to Tri-County Rural Electric Cooperative, pending approval from the New York State Public Service Commission. Our Waverly, N.Y., service territory—located northwest of Towanda, PA—serves about 3,800 customers in a small area just across the state line. As of 3/12/21, Jersey Central Power & Light (JCP&L) completed the sale of its interest in the Yards Creek pumped-storage hydro plant to Yards Creek Energy, LLC.

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 2020	December 31 2020	No	<Not Applicable>

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
Transmission
Distribution

Other divisions

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)	The CEO, a member of the Board of Directors, has direct responsibility for climate-related issues, including the implementation of FirstEnergy's climate strategy.
Board-level committee	The Board of Directors oversees many ESG related matters. In addition, the Corporate Governance and Corporate Responsibility Committee of the Board of Directors has oversight of ESG topics, including climate strategy and climate risks and opportunities. This Board Committee solely comprises independent directors and typically meets five times per year.

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	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>	While the Corporate Governance and Corporate Responsibility Committee is delegated oversight for climate-related issues, other committees provide review of ESG risks and opportunities. For example, the Audit Committee develops policies and processes for financial reporting, audit process, internal controls, and legal, regulatory, and ethical compliance, which encompasses climate-related controls and compliance.

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
Corporate responsibility committee *Executive Steering Committee*	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other, please specify (Senior Vice President, Strategy)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other, please specify (Vice President, Risks & Internal Audit)	<Not Applicable>	Managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other C-Suite Officer, please specify (Senior Vice President, FEU)	<Not Applicable>	Managing climate-related risks and opportunities	<Not Applicable>	More frequently than 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 CEO is the highest position responsible for climate-related issues. FirstEnergy has many other officers who have varied responsibilities in understanding and addressing these climate-related issues.

The Executive Steering Committee is a cross-functional, executive-level steering committee that was established to review and guide governance topics, including risks and opportunities associated with climate. In 2020. the Steering Committee included FirstEnergy's Chief Ethics Officer and Corporate Secretary, VP of Risk & Internal Audit, VP of Corporate Affairs & Community Involvement, VP of Investor Relations, Chief Human Resources Officer, and VP of Utility Services (which includes Environmental).

The Senior Vice President, Strategy is responsible for overseeing the company's corporate responsibility strategy and management. The strategy organization includes a dedicated staff focused on the company's environmental, social, governance (ESG) and corporate responsibility initiatives, including climate risks and opportunities. The SVP, Strategy is also responsible for the long-term strategic plan of the organization. As part of the organizational design, the Corporate Responsibility department was included under the Strategy portion of the organization in order to ensure that sustainability is embedded in the company's long-term strategy.

In 2020, FirstEnergy's Vice President, Risk & Internal Audit reported to the Senior Vice President and Chief Legal Officer. The Risk and Internal Audit teams have an established process for continuous review of risks and governance processes to effectively manage risks. The process is supported by FirstEnergy leadership, the Board of Directors and the Board's Audit and Finance Committees.

The Senior Vice President, FEU manages many departments that are directly responsible for transmission, distribution, and generation fleet operations and have the most critical influence on FirstEnergy's climate impact. Climate-related initiatives and goals FirstEnergy has set impact each of these departments.

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 inventivized	Comment
All employees	Monetary reward	Other (please specify) (Environmental Excursions and NOVs)	FirstEnergy's compensation program is based on the fundamental premise of pay for performance and includes base pay and incentive pay. As part of the compensation program, our short-term incentive program (STIP) rewards outstanding performance and the achievement of business goals. FirstEnergy's business goals consist of an array of financial and operational key performance indicators, including environmental-related ones. Specifically, FirstEnergy employee compensation under our STIP program is directly impacted by the number of environmental excursions and Notices of Violations (NOVs), which form one of our Key Performance Indicators in our Operations Index. Together, they measure regulatory reportable air emissions, water discharges or other unauthorized releases that exceed the allowable limitations, conditions or deadline established in the facilities' environmental permits as well as NOVs issued by a federal, state or local regulatory agency for the violation of an environmental law or regulation.

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	1	
Medium-term	2	5	
Long-term	6	10	

C2.1b

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

FirstEnergy identifies substantive financial and/or strategic risks through an assessment process that includes several factors. Examples of these factors include, but are not limited to:

- Injury or health exposure
- Direct financial loss
- Violation of applicable laws or regulations
- Adverse impact to customers
- Interruption to core business operations
- Adverse reputational impact
- Adverse environmental impact

To determine whether the risk is substantive, FirstEnergy evaluates the possible impact for each of these factors, as well as the likelihood of occurrence. A substantive impact of relatively high magnitude could include any combination of risk factors

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
We operate in a business environment that involves significant risks, many of which are beyond our control. Management regularly evaluates the most significant risks and reviews those risks with the FirstEnergy Board of Directors or appropriate Board Committees.

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	The United States Environmental Protection Act (EPA) has begun to regulate GHG emissions by publishing the final Affordable Clean Energy rule (ACE Rule) to repeal and replace the Clean Power Plan. This plan requires states to develop emissions standards for current and new fossil-fueled power plants. These regulations affect FirstEnergy's operations and are fully incorporated into our risk consideration.
Emerging regulation	Relevant, always included	Emerging statutes, regulations, or EPA actions under existing rules could be impactful to FE operations. New statutes, regulations, or EPA actions are reviewed by the appropriate departments to determine potential impacts to the company's operations. FirstEnergy monitors and reviews applicable policies for potential impacts to current operations and future decision making. The recent vacatur of the ACE rule leaves a level of uncertainty around the future of climate regulations. If regulations are set aggressively, cost and expense for compliance with those regulations may outpace FirstEnergy's current climate-related goals.
Technology	Relevant, always included	Advances in technology may change consumer behavior and accelerate widespread electrification. The unknown trajectory of technologies like electric vehicles, renewable generation, and battery storage will provide additional stress on FirstEnergy's delivery system. These increased demands could require development of additional transmission and distribution systems. FirstEnergy's Energizing the Future and Grid of the Future initiatives were developed to address these risks.
Legal	Relevant, always included	Legal risks, especially involving compliance with environmental requirements, have the potential to impact the company financially and reputationally. For example, the SEC is beginning to refine requirements for companies to disclose climate-related information. This information may require external audits or data not currently tracked and disclosed today by FirstEnergy. FirstEnergy strives to remain in compliance with all current potential regulations.
Market	Relevant, always included	FirstEnergy assesses risks to ensure we are meeting market demands for energy, which vary with weather conditions, temperature, and humidity. For residential customers, heating and cooling represent the largest usage of energy in a household. That means climate-related changes in weather patterns will affect the market demand for energy and FirstEnergy will have to adjust operations and infrastructure to meet these demands.
Reputation	Relevant, always included	FirstEnergy takes reputational risk very seriously across all facets of the organization. How the company responds to communities and stakeholders regarding environmental and climate-related risks must include considerations of policies, transparency, and financial impact.
Acute physical	Relevant, always included	The uncertainty of weather patterns and extreme weather events are difficult to predict until they occur. But we do know that increasingly severe weather brought on by climate change poses a physical risk to utility and energy infrastructure. Physical risks such as asset deterioration or damage could potentially impact utilities' ability to provide reliable service to customers. This presents a variety of operational, reputational, and financial risks for FirstEnergy to assess. Our Energizing the Future transmission program and Grid of the Future distribution program help us to prepare our system for these risks.
Chronic physical	Relevant, always included	Long-term changes in temperature will affect our customers' demand for electricity, which in turn impacts our cashflows. Increasing extreme weather events will require continued execution of our improvement projects to further harden our infrastructure and ensure energy reliability.

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

Current regulation	Mandates on and regulation of existing products and services

Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

In 2019, FirstEnergy conducted a two-degree scenario analysis. This analysis revealed that changes to legislation and regulation at both the state and federal levels may prematurely lead to write-offs, asset impairment, and early retirement of existing coal plants that are not in alignment with our current climate strategy. If targets become more aggressive, there is also a compliance risk if new compliance targets outpace orderly investment.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

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
FirstEnergy cannot currently estimate the financial impact of climate change policies, although they could have a negative impact on FirstEnergy's revenues and operations.

Cost of response to risk

Description of response and explanation of cost calculation
To manage this risk, we are committing to a thoughtful transition of our regulated coal generation fleet. We also continue to explore near-term opportunities to reduce emissions, incorporate renewable resources and implement emerging technologies that support our company's mission. Throughout the process, FirstEnergy will engage with state regulators, customers, and other stakeholders to evaluate the future operation of these plants.

Comment
The cost of management of climate-related policy and legal risks are incorporated in our business plan.

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Technology	Other, please specify (Investment of electric grid enhancement)

Primary potential financial impact
Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
The scenario analysis FirstEnergy conducted envisions a future with widespread electrification, including extensive use of electric vehicles and widespread conversion to heat pumps in residential, commercial and industrial buildings. This increase would result in the need to accommodate dramatic increases in load during peak and non-peak hours, thereby potentially causing an operational risk to the transmission and distribution system. In a highly electrified economy such as the one described in the scenario analysis, the loss of power would not just mean loss of lighting and refrigeration; it would also mean losing the ability to heat homes and businesses, power transportation and communication systems, and operate water and sewage pumps. According to FirstEnergy's analysis, transportation load on the electric system increases from virtually zero today to more than 95 million MWh per year by 2050 across the six-state region (Ohio, Pennsylvania, New Jersey, Maryland, West Virginia, and New York) where we operate. To put that in perspective, 95 million MWh represents an approximately 20 percent increase over total current electric consumption within the region.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Medium-low

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
FirstEnergy cannot currently estimate the financial impact of operational risks; however, they could cause increased costs to our company and our customers.

Cost of response to risk

Description of response and explanation of cost calculation
As part of our management method of this risk, FirstEnergy's Energizing the Future transmission program and comparable investments on the distribution system are critical to providing a more flexible system that can respond to the continually changing demand and power flows on the system. From 2014 to 2018, we invested nearly $5.6 billion on grid improvement projects, and we are on track to invest approximately $1.2 billion per year on our transmission system from in 2021. Of the $1.2 billion per year, we expect over 75 percent of the investment to go toward enhancing grid reliability. Looking beyond 2021, we have identified more than $20 billion in additional projects designed to help us meet the evolving energy needs of our customers, ensure service reliability into the future, add resiliency to our transmission system, meet potential future load growth in our service area, and increase physical and cyber security. We realize that a low-carbon future is built off a robust and reliable transmission system, thus FirstEnergy will continue to work with developers, researchers, and policymakers to better understand these risks and help advance new technologies that are critical to the effective and efficient operation of the changing transmission and distribution system.

Comment
The costs of this climate-related risk are part of existing management practices.

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Market	Changing customer behavior

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
FirstEnergy's customers are actively seeking opportunities to reduce their energy consumption. Advancements in education and technology has provided customers access to increased energy efficiency opportunities. Also, many state legislatures, such as PA, OH, and MD where we operate, have set energy efficiency targets. Failure to meet these requirements may subject FirstEnergy to significant financial penalties and reputational risk. In addition to energy efficiency programs, DERs, customer owned renewables, and other factors could have an adverse impact on FirstEnergy's revenues as electric sales decrease.

Time horizon
Short-term

Likelihood
Exceptionally unlikely

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
160000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
FirstEnergy spent approximately $125 million during 2020 on its portfolios that were created in response to state Energy Efficiency programs. These costs were approved by regulatory bodies and have associated cost recovery mechanisms. Failure to meet state targets may subject the Company to financial penalties that vary by jurisdiction of up to $20 million per offense (max potential is $160 million). Additionally, FirstEnergy's distribution revenues in certain jurisdictions will be lower because of reduced usage arising from its Energy Efficiency.

Cost of response to risk

Description of response and explanation of cost calculation
FirstEnergy developed a dedicated Energy Efficiency department that manages all programs in response to state requirements. In 2020, this department conducted monthly progress reviews and forecasted performance against these targets. FirstEnergy utility programs have a strong track record of meeting or significantly exceeding state targets. In 2020, the FirstEnergy companies produced energy efficiency savings of 1,013,955 MWh, including approximately 140,000 MWh in MD, 582,000 MWh in OH, and 293,000 MWh in PA. FirstEnergy's energy efficiency programs help customers invest in energy efficient equipment and gain insight into their energy usage. In 2020, FirstEnergy's behavioral energy efficiency programs delivered over 5,200,000 print and email home energy usage reports to approximately 830,000 customers. By highlighting customers' energy usage characteristics and providing energy savings tips, these programs saved approximately 175,000 MWh.

Comment
Revenue impacts based on Energy Efficiency and Peak Demand Reduction programs in Maryland and Pennsylvania can only be adjusted during base rate case proceedings. While the prospect of FirstEnergy being fined the full $160 million is exceptionally unlikely, the revenue reduction in certain jurisdictions arising from its programs is virtually certain until such times as such Operating Companies would hold a base rate case.

Identifier
Risk 4

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Market	Changing customer behavior

Primary potential financial impact
Decreased access to capital

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Risks associated with owning coal-fired generation may have an adverse impact on our business operations, financial condition, and cash flow. Recently, certain members of the investment community have adopted investment policies promoting the divestment of coal-fired generation or otherwise restricting new investments in coal-fired generation. The impact of such efforts may adversely affect the demand for and price of our common stock and impact our and Mon Power's access to the capital and financial markets. Further, certain insurance companies have established policies limiting coal-related underwriting and investment. While we expect to transition away from our coal generation fleet by 2050, these policies aimed at coal-fired generation could in the meantime have a material adverse impact on our business operations, financial condition, and cash flows.

Time horizon
Short-term

Likelihood
Very likely

Magnitude of impact
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
FirstEnergy cannot estimate the financial impact on our business operations, financial condition and cash flows.

Cost of response to risk

Description of response and explanation of cost calculation
We continue to evaluate opportunities for regulated renewable generating sources. We have set a goal to own at least 50 MW of solar generation in West Virginia by 2025. In addition, FirstEnergy plans to thoughtfully transition away from our regulated coal generation fleet no later than 2050.

Comment

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
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
We view electrification as an opportunity to significantly reduce our region's carbon footprint by replacing fossil fuel use with low- and zero-carbon electricity in various energy-intensive industries, such as transportation, manufacturing, and food processing. It also represents an opportunity to increase electricity demand, and therefore our revenues. For these reasons, FirstEnergy is supporting transportation electrification and advocating for the buildout of EV charging infrastructure in our service area. We are also helping commercial and industrial embrace electrification through upgrades.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium-low

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
In MD, our $5.9M program includes installation and ownership of up to 59 EV chargers and a rebate program for Residential and Multi-Unit Dwellings. JCP&L filed a $49.92 million EV infrastructure program in New Jersey that is pending approval. We are currently evaluating additional programs but cannot yet estimate the financial impact.

Cost to realize opportunity
109900000

Strategy to realize opportunity and explanation of cost calculation
In Maryland, our Potomac Edison Company is installing up to 59 utility-owned public charging stations throughout the Maryland service area, and our JCP&L utility filed for an EV infrastructure program in New Jersey that is pending approval. These programs will help us gain knowledge about EV charging patterns and corresponding distribution system impacts in preparation for the continued growth of transportation electrification across our service area.

Comment
Aside from our MD EV pilot, FirstEnergy cannot currently estimate the cost to realize this opportunity.

Identifier
Opp2

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resilience

Primary climate-related opportunity driver
Participation in renewable energy programs and adoption of energy-efficiency measures

Primary potential financial impact
Increased revenues through access to new and emerging markets

Company-specific description
Our utility operating companies helped customers better manage their energy use through the energy efficiency programs they offered via EnergySave Maryland, EnergySave Ohio, and EnergySave Pennsylvania. These programs also played a key role in helping the companies meet state energy efficiency mandates. Our operating companies offered a portfolio of programs for residential, commercial, and industrial customers. Our programs for residential customers included discounted compact fluorescent light and LED bulbs; rebates on the purchase of new, efficient appliances and products; rebates on the cost of home energy audits and heating, ventilation and air conditioning replacements; incentives to recycle older, less efficient refrigerators, freezers and room air conditioners; home energy usage reports and energy efficiency kits; and targeted programs for low-income customers. Our programs for commercial and industrial customers provided incentives to install efficient lighting, HVAC motors, drives and other energy-efficient equipment and processes. Through our customer energy-efficiency programs, FirstEnergy expects to help customers achieve cumulative reductions in electricity savings in excess of 7.5 million MWh and lower their demand on the electric grid during peak usage hours by 400 MW between 2021 and 2025.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium-low

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

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
FirstEnergy is committed to our mission of making our customers' lives brighter, the environment better and our communities stronger. To support this, FirstEnergy continues to maintain a dedicated Energy Efficiency department offering energy savings programs with the goal of surpassing energy efficiency targets set by states and regulatory agencies. FirstEnergy's Energy Efficiency department conducted monthly progress reviews and forecasted performance of energy efficiency programs. Through our customer energy-efficiency programs, FirstEnergy will help customers achieve cumulative reductions in electricity savings in excess of 7.5 million MWh and lower their demand on the electric grid during peak usage hours by 400 MW between 2021 and 2025.

Comment
FirstEnergy cannot currently estimate the costs to realize this opportunity.

Identifier
Opp3

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of more efficient modes of transport

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
To further support our stance on widespread electrification, FirstEnergy has committed to only purchase electric or hybrid light duty and aerial trucks to replace combustion engine vehicles.

Time horizon
Short-term

Likelihood
Virtually certain

Magnitude of impact
Low

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

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
FirstEnergy plans for 100% of new purchases for its light-duty and aerial truck fleet to be electric or hybrid vehicles moving forward, with a goal of reaching 30% fleet electrification by 2030. This effort will eliminate 10000 metric tons of GHG by 2030.

Comment
FirstEnergy cannot currently estimate the costs to realize this opportunity.

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) Is your organization's low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	No, and we do not intend it to become a scheduled resolution item within the next two years	

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?
Yes, qualitative and quantitative

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
2DS	In 2019, FirstEnergy published a climate report that included a two-degree scenario analysis. The analysis is based on the International Energy Agency's 2DS (IEA 2DS). In selecting a scenario to study, our objective was to evaluate a 2DS with sufficient detail to provide meaningful insights for our business and geography. We also prioritized a publicly available analysis to promote greater transparency in the process. The structure of our analysis was guided by recommendations from the TCFD as well as a report published by Ceres and authored by MJ Bradley & Associates (MJB&A). We also took into consideration other third-party produced 2-degree scenarios, including "beyond 2-degree" scenarios that are consistent with an October 6, 2018, Special Report on Global Warming of 1.5°C from the Intergovernmental Panel on Climate Change. While the IEA 2DS publication provided a strong basis for this analysis, we engaged a consultant to develop state-level detail from the IEA 2DS for the six states where FirstEnergy primarily operates: OH, PA, WV, NJ, MD, and NY. The IEA 2DS envisions that a 90% reduction in multi-sector U.S. CO2 emissions by 2060, along with other reductions across the globe, would be necessary to limit global temperature rise to below 2 degrees Celsius. When applied to our operating states, the scenario results show significant changes in energy use across all sectors of the economy, with the largest contribution from electricity generation and transportation sectors. The electric generating fleet across our five-state region is almost completely restructured in the scenario. Renewables and other zero-carbon resources dominate the generation mix by 2050, accounting for almost 75% of electricity produced within the region. Nuclear generation accounts for almost 20% of generation followed by natural gas combined-cycle plants at 3% and coal with carbon capture and storage at 2%. All existing coal plants operating in the region (approximately 40,000 MW of capacity) are retired by 2035. Achieving this level of decarbonization would require a significant increase in utility-scale renewable energy projects with higher average capacity factors than are currently available, transmission expansions to access regions with better renewable resource potential and an increase in energy storage capacity. Through our evaluation of a 2DS, we have envisioned an ambitious reduction in economywide carbon emissions over the next several decades. We have studied the implications of this scenario on our five-state service area to better understand the risks and opportunities to our business. While this scenario is not used as a part of our current planning forecast, we are confident that we are already well-positioned to mitigate those risks, and we are exploring and acting upon many of the related opportunities that can benefit our shareholders, customers and communities. These actions include the continued implementation of our Corporate Responsibility, Emerging Technologies, Regulated Generation, and Transmission and Distribution strategies. The insights gained from this scenario will help inform our strategic planning process.

C3.3

(C3.3) 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	FirstEnergy recognizes that customer behaviors are beginning to change due to climate concerns. Customers want to have more understanding and control over their energy usage. To respond, we provide several energy efficiencies programs. Programs include Home Energy analyzer, appliance recycling, appliance and HVAC rebates, Energy audits, energy efficiency kits, and limited income energy saving home improvements. We plan to install smart meters for two-thirds of our customers by 2025. Smart meters provide customers with more real-time information about their usage, leading to more informed decisions about their energy use.
Supply chain and/or value chain	Yes	FirstEnergy's Supply Chain mission includes working with supply chain partners to advance mutually beneficial ESG goals. In alignment with our commitment to meet the challenges of climate change and build a more sustainable energy future, our Supply Chain objectives include seeking sustainability-focused partners and asking suppliers in RFPs to provide the most sustainable version of their products, even if specifications did not specifically outline that requirement.
Investment in R&D	Yes	FirstEnergy is making investments to monitor and assess technology trends that could help us enable a carbon-neutral future. For example, FirstEnergy is an active member of many EPRI programs that research low-carbon technologies and environmental policies. Recently, we joined EPRI's Solar Generation Program, which provides research on solar technology, best practices to manage a solar plant, and evolving industry trends. FirstEnergy also participates in venture capital investments through the Energy Impact Partners (EIP) coalition, which invests in companies focused on building the clean energy future. One example of a current investment is EIP's Deep Decarbonization Frontier Fund that is focused on DER technologies.
Operations	Yes	From an operational perspective, risks are reviewed using a top-down and bottom-up approach. Top down: The strategic plan at the corporate level has a risk assessment performed annually with risks being analyzed both at the inherent and residual level for financial implications. Bottom up: The business unit performs project level risk assessments to ensure goals and objectives are achievable. All risks and opportunities are reviewed to ensure alignment with strategic level goals.

C3.4

(C3.4) 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 Direct costs Indirect costs Capital expenditures Access to capital Assets Liabilities	Enterprise Risk Management ("ERM") and Internal Auditing ("IA") have established a continuous review of risks and governance processes to assist the Company in achieving its objectives by effectively managing risks. The process utilizes a single risk universe for the Company to engage key stakeholders and subject matter experts in an on-going dialogue regarding risks. Risks are managed through a risk management strategy to avoid, mitigate, transfer or accept the risk. The ERM framework is used in activities from strategic and financial planning to individual projects, so risks can be effectively managed and allow the Company to use its resources to minimize the risks and seize opportunities to successfully achieve goals to maximize shareholder value. The ERM process is supported by FE leadership including, but not limited to, the Board of Directors, the Audit Committee, the Finance Committee, the Operations and Safety Oversight Committee. To facilitate the risk oversight process, risks can be reported by current year and out years to apprise these oversight areas of significant risks facing the company in the short and long term. The risk severity, probability and velocity will determine the urgency for quantifying and managing the risk. Project Risk Management ("PRM") is a systemic and structured analysis of project risks and is required on all major projects. PRM is tailored to the requirements of the project (i.e. budget, scope, schedule) and ERM adjusts the process to match the specific project challenges. Project risk assessment deliverables are also tailored to the requirements of the project, but usually include a risk register with a categorical list of risks with risk descriptions, risk owners, risk quantification, and risk mitigation strategies. Project risk assessments are used to allocate resources to address significant risks facing the project and FE. They can be used to support a decision to fund or not fund business decisions including but not limited to staffing levels, reporting requirements, accruals, and whether or not to contract for third party support (i.e. legal, external contractor, or consultants). Our Strategic Plan illustrates how climate-related risks and opportunities have influenced our financial planning. Our strategy for addressing climate change includes reaching carbon neutrality by 2050. To achieve carbon neutrality, we will execute our fleet electrification plans, replace aging transmission equipment, implement operational flexibilities at our generating plants, and thoughtfully transition away from our regulated coal generation fleet by 2050. Our climate change strategy also impacts our service and support to our customers and communities. By modernizing our transmission and distribution systems, supporting widespread electrification, and incorporating emerging smart technologies on the grid, we will enable our customers and communities to thrive in a low-carbon economy.

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

Risk provides Treasury the estimated cash impacts of risk events for use in determining liquidity position. Information includes but is not limited to extreme storm events, cash impacts from market exposure such as interest rate changes, variance in revenue due to weather, financial planning impacts, pension contributions, surety bond impacts and impacts related to various other contractual obligations. Information provided to Treasury is directly related to risks managed within the ERM framework.

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
2020

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1

Base year
2019

Covered emissions in base year (metric tons CO2e)
18102068

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2030

Targeted reduction from base year (%)
30

Covered emissions in target year (metric tons CO2e) [auto-calculated]
12671447.6

Covered emissions in reporting year (metric tons CO2e)
14704679

% of target achieved [auto-calculated]
62.5598688503435

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

Target ambition
<Not Applicable>

Please explain (including target coverage)
In 2020, FirstEnergy updated our GHG reduction goal. We believe this new greenhouse gas reduction goal aligns with our electric utility industry peers and our company's long-term strategy. We have chosen a challenging near-term 2019 baseline, as opposed to a more traditional 2005 starting point. And to reflect our transformation to a regulated utility, we've included emissions associated with our transmission and distribution operations as well as our generation. The new goal also aligns with the Paris Agreement.

Target reference number
Abs 2

Year target was set
2020

Target coverage

Company-wide

Scope(s) (or Scope 3 category)
Scope 1

Base year
2019

Covered emissions in base year (metric tons CO2e)
18102068

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

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)
14704679

% of target achieved [auto-calculated]
18.7679606551031

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

Target ambition
<Not Applicable>

Please explain (including target coverage)
In 2020 FirstEnergy updated our GHG reduction goal and introduced a 2050 carbon-neutral target. We believe this new carbon neutral goal aligns with our electric utility industry peers and our company's long-term strategy. We have chosen a challenging near-term 2019 baseline to reflect our transformation to a regulated utility and included emissions associated with our transmission and distribution operations as well as our small generation fleet. The carbon neutral goal also aligns with the intent of the Paris Agreement.

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
Net-zero target(s)

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
2020

Target coverage
Company-wide

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)
MWh

Target denominator (intensity targets only)
<Not Applicable>

Base year
2020

Figure or percentage in base year
0

Target year
2025

Figure or percentage in target year
1.3

Figure or percentage in reporting year
0

% of target achieved [auto-calculated]
0

Target status in reporting year
New

Is this target part of an emissions target?
No

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain (including target coverage)
FirstEnergy expects to own at least 50 MW of solar generation in West Virginia by 2025.

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number
NZ1

Target coverage
Company-wide

Absolute/intensity emission target(s) linked to this net-zero target
Abs2

Target year for achieving net zero
2050

Is this a science-based target?
No, and we do not anticipate setting one in the next 2 years

Please explain (including target coverage)
To achieve carbon neutrality, FirstEnergy expects to execute our fleet electrification plans, replace aging transmission equipment, implement operational flexibilities at our generating plants, and thoughtfully transition away from our regulated coal generation fleet by 2050.

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	0	0
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	2	1326100
Not to be implemented	0	0

C4.3b

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

Initiative category & Initiative type

Transportation	Company fleet vehicle replacement

Estimated annual CO2e savings (metric tonnes CO2e)

1100

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

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

5000000

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

Initiative category & Initiative type

Company policy or behavioral change	Customer engagement

Estimated annual CO2e savings (metric tonnes CO2e)

1325000

Scope(s)

Scope 3

Voluntary/Mandatory

Mandatory

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

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

Payback period

4-10 years

Estimated lifetime of the initiative

Ongoing

Comment

C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	Compliance with regulatory requirements is regarded as a high priority for funding. Energy efficiency and/or peak demand reduction policies have been established in certain states to meet long-term customer and community sustainability needs. These states established annual incremental energy efficiency targets of up to 2% of total customers' usage. As a result, we began offering a suite of energy efficiency programs to meet or exceed the reduction targets, while also supporting system reliability and lowering customers' electricity costs. In 2020, FirstEnergy spent approximately $125 M in MW, OH, and PA for energy efficiency programs.
Dedicated budget for energy efficiency	We are focused on helping our customers reduce their overall energy consumption, including gasoline, natural gas, and electricity. In 2020, FirstEnergy spent approximately $125 M in MW, OH, and PA for energy efficiency programs. In addition, FirstEnergy supports EPRI research to better understand efficiency opportunities in emerging technologies, such as next-generation heat pumps, advanced data center infrastructure, smart thermostat developments and advanced building design. Emerging options can help us inform electricity consumption behaviors, improve energy efficiency, reduce carbon footprints and lower energy bills.
Other (Investments in low-carbon start-ups)	FirstEnergy is a limited partner with Energy Impact Partners (EIP), a venture capital firm. EIP was named the largest investor in clean technology in 2019 by Business Insider. EIP is focused on investing in clean energy technologies and advancing the transformation of the energy industry.

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

Company-wide

Description of product/Group of products

Energy Efficiency

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 (State regulatory programs)

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

0

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

State regulatory programs

C-EU4.6

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

FirstEnergy's generating fleet does not utilize natural gas in our operations, therefore methane emissions are not relevant to our organization's operations.

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 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
18102068

Comment
The 2019 base year emissions represent FirstEnergy's Scope 1 emissions.

Scope 2 (location-based)

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
1099865

Comment
The office facilities (both owned and leased), transmission and distribution lines, and substations and other electrical infrastructure that fall within the operational boundary and report electricity consumption are included in the calculation of 2019 Scope 2 emissions. 2019 Scope 2 emissions were calculated using kwh purchased for FirstEnergy's corporate locations. Regional specific emission factors were used based on the location of the buildings.

Scope 2 (market-based)

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
1156210

Comment
The office facilities (both owned and leased), transmission and distribution lines, and substations and other electrical infrastructure that fall within the operational boundary and report electricity consumption are included in the calculation of 2019 Scope 2 emissions. 2019 Scope 2 market-based emissions were calculated using kwh purchased for FirstEnergy's corporate locations. The corporate facilities are within FirstEnergy's operating company territories; therefore, FirstEnergy's operating company specific emissions intensity rates were used.

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 Mandatory Greenhouse Gas Reporting Rule
US EPA Emissions & Generation Resource Integrated Database (eGRID)
Other, please specify (The World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol and supplements and the Electric Power Sector (EPS) Protocol)

C5.2a

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

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)
14704679

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
FirstEnergy's gross global Scope 1 emissions include FirstEnergy's stationary energy generation, fugitive emissions, and mobile sources.

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 are reporting 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
1068434

Scope 2, market-based (if applicable)
1100888

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
12/31/2020 FirstEnergy's Scope 2 location-based emissions include emissions associated with purchased power for FirstEnergy's corporate facilities and line losses. A regional eGRID factor was used based on the location of the facility.

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?
No

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
Not evaluated

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
FirstEnergy has not calculated Scope 3 emissions from purchased goods and services.

Capital goods

Evaluation status
Not evaluated

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
FirstEnergy has not calculated Scope 3 emissions from Capital Goods.

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

Evaluation status
Relevant, calculated

Metric tonnes CO2e
28230946

Emissions calculation methodology
Greenhouse Gas Protocol Scope 3 Standard and Technical Guidance.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain

Upstream transportation and distribution

Evaluation status
Not evaluated

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
FirstEnergy has not calculated Scope 3 emissions associated with upstream transportation and distribution.

Waste generated in operations

Evaluation status
Relevant, calculated

Metric tonnes CO2e
18168

Emissions calculation methodology
Greenhouse Gas Protocol Scope 3 Standard and Technical Guidance.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
FirstEnergy calculated Scope 3 emissions associated with waste from mixed paper, mixed recyclable, and mixed MSW. These numbers were obtained from our waste management vendors.

Business travel

Evaluation status
Relevant, calculated

Metric tonnes CO2e
8584

Emissions calculation methodology
Data was obtained from both the Concur platform and in-house resources and includes commercial air travel miles, employee mileage, and air travel.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
FirstEnergy's corporate travel agent, Concur, provided data for FirstEnergy employee commercial air flights and rental cars. FirstEnergy internal records were used to include total number of miles expensed by FirstEnergy employees with their personal vehicles.

Employee commuting

Evaluation status
Not evaluated

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
FirstEnergy has not calculated Scope 3 emissions associated with employee commuting. Some employee travel with personal vehicles was calculated within Business travel.

Upstream leased assets

Evaluation status
Not evaluated

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
Scope 3 emissions from upstream leased assets have not been evaluated.

Downstream transportation and distribution

Evaluation status
Not evaluated

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 transportation and distribution are capture in Scope 1 emissions.

Processing of sold products

Evaluation status
Not evaluated

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
FirstEnergy does not produce any intermediary products that will be relevant to Scope 3 emissions.

Use of sold products

Evaluation status
Not evaluated

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
Any GHG emissions associated with use of sold products are accounted for in Scope 1 emissions.

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
The production and delivery of electricity does not result in any Scope 3 emissions associated with end of life treatment of sold 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
FirstEnergy does not have any relevant Scope 3 emissions associated with 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
FirstEnergy 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
Any relevant GHG emissions associated with FirstEnergy's investments would be captured in Scope 1 or Scope 2 emissions.

Other (upstream)

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
No additional Scope 3 downstream GHGs are considered relevant for FirstEnergy.

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
No additional Scope 3 downstream GHGs are considered relevant for FirstEnergy.

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
0.0015

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
15805567

Metric denominator
unit total revenue

Metric denominator: Unit total
10790000000

Scope 2 figure used
Market-based

% change from previous year
51

Direction of change
Decreased

Reason for change
FirstEnergy's emissions continue to decrease through use of innovative technology and changes to fleet operations.

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	14491864.32	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	3898.27	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	74397.69	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	134518.45	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	5.9	134518.45	FirstEnergy's calculated Scope 1 fugitive emissions include SF6 emissions as reported to the EPA's GHG MRR.
Combustion (Electric utilities)	14441432.8	155.3	0	14519278.9	The gross Scope 1 emissions associated with FirstEnergy's combustion include CO2, CH4 and N2O.
Combustion (Gas utilities)	0	0	0	0	FirstEnergy does not have gas utilities.
Combustion (Other)	0	0	0	0	FirstEnergy does not have other combustion sources.
Emissions not elsewhere classified	50431.52	0.63	0	50881.38	Corporate vehicles and jets. The gross Scope 1 includes CO2, CH4 and N2O.

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	14704679

C7.3

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

By facility
By activity

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
Fort Martin Power Station	4725695.5	39.423859	-79.553991
Harrison Power Station	9793583.4	39.230213	-80.195185

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Stationary	14519279
Fugitive	134518
Fleet Services	50881

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/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-TO7.4/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	14704679	<Not Applicable>	Scope 1 emissions associated with electric utility generation and SF6 activities, as reported to USEPA's GHG Mandatory Reporting Rule.
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	0	
Other emissions reduction activities	0	No change	0	
Divestment	0	No change	0	
Acquisitions	0	No change	0	
Mergers	0	No change	0	
Change in output	0	No change	0	
Change in methodology	0	No change	0	
Change in boundary	0	No change	0	
Change in physical operating conditions	0	No change	0	
Unidentified	0	No change	0	
Other	3416249	Decreased	100	Lower energy production from our coal plants

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 0% but less than or equal to 5%

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	Yes
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)	0	17287579	17287579
Consumption of purchased or acquired electricity	<Not Applicable>	0	256726	256726
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>	250463	<Not Applicable>	250463
Total energy consumption	<Not Applicable>	250463	1590658	1841121

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	No
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)
Subbituminous Coal

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
1333932

MWh fuel consumed for self-generation of electricity
17287579

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
0.91

Unit
metric tons CO2e per metric ton

Emissions factor source

Comment

(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)
3082

Gross electricity generation (GWh)
17287.57

Net electricity generation (GWh)
15953.64

Absolute scope 1 emissions (metric tons CO2e)
14704679

Scope 1 emissions intensity (metric tons CO2e per GWh)
850.59

Comment
Includes Fort Martin and Harrison P.S. using gross gigawatts.

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
FirstEnergy does not have any generation from lignite

Oil

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
FirstEnergy does not have any generation from oil.

Gas

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
FirstEnergy does not have any generation from gas.

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
FirstEnergy does not have any generation from biomass.

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
FirstEnergy does not have any generation from waste (non-biomass).

Nuclear

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
FirstEnergy does not have any generation from nuclear generating plants.

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
FirstEnergy does not have any generation from fossil-fuel plants fitted with CCs.

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
FirstEnergy does not have any generation from geothermal.

Hydropower

Nameplate capacity (MW)
697

Gross electricity generation (GWh)
250.46

Net electricity generation (GWh)
0

Absolute scope 1 emissions (metric tons CO2e)
0

Scope 1 emissions intensity (metric tons CO2e per GWh)
0

Comment
Net generation for FE's hydroelectric units is -91.80 GWH (we are unable to input a negative number).

Wind

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
FirstEnergy does not have any generation from wind.

Solar

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
FirstEnergy does not have any generation from solar.

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
FirstEnergy does not have any generation from marine.

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
FirstEnergy does not own any other renewable generating sources.

Other non-renewable

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
FirstEnergy does not own any other non-renewable electricity generating facilities.

Total

Nameplate capacity (MW)
3779

Gross electricity generation (GWh)
17538.04

Net electricity generation (GWh)
15861.85

Absolute scope 1 emissions (metric tons CO2e)
17704679

Scope 1 emissions intensity (metric tons CO2e per GWh)
850.59

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
Transmission (high voltage)

Annual load (GWh)
165422

Annual energy losses (% of annual load)
4.5

Scope where emissions from energy losses are accounted for
Scope 2 (location-based)

Emissions from energy losses (metric tons CO2e)
1068434

Length of network (km)
38681

Number of connections
6168000

Area covered (km2)
168349.23

Comment
FirstEnergy calculates transmission and distribution losses as part of the Scope 2 and does not provide a breakdown between the two entities. For the purposes of this CDP report, our total combined scope 2 location-based T&D emissions, energy losses, and annual load.

Country/Region
United States of America

Voltage level
Distribution (low voltage)

Annual load (GWh)
165422

Annual energy losses (% of annual load)
4.5

Scope where emissions from energy losses are accounted for
Scope 2 (location-based)

Emissions from energy losses (metric tons CO2e)
1068434

Length of network (km)
438596

Number of connections
6168000

Area covered (km2)
168349.23

Comment
FirstEnergy calculates transmission and distribution losses as part of the Scope 2 and does not provide a breakdown between the two entities. For the purposes of this CDP report, our total combined scope 2 location-based T&D emissions, energy losses, and annual load.

C9. Additional metrics

C9.1

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

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
Solar	100000000		2025	50 MW of Solar in WV

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
Charging networks	EV charging stations located in Maryland and New Jersey. We submitted the New Jersey EV charging program filing, as required by the BPU, on 3/1/2021. Our Maryland EV charging program is an ongoing project to install and own 59 public chargers. As of 4/5/21, there are 19 chargers installed under this program.	53000000		2025

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	

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
Unable to disaggregate by technology area	<Not Applicable>	Please select		FirstEnergy supports many low-carbon EPRI initiatives including solar Generation, Wind Generation, and DERs. We also sponsor EPRI's Low-Carbon Resource Initiative.

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

Page/ section reference

Relevant standard
Other, please specify (The World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol and supplements, Electric Power Sector (EPS) Protocol)

Proportion of reported emissions verified (%)
99

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?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C6. Emissions data	Year on year change in emissions (Scope 1)	EPA Continuous Emissions Monitoring Systems (CEMs) Relative Accuracy Tests Audits (RATA) procedures certify monitors to ±10%.	EPA Continuous Emissions Monitoring Systems (CEMs) Relative Accuracy Tests Audits (RATA) procedures certify monitors to ±10%.

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?

No

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
Navigate GHG regulations
Stakeholder expectations
Stress test investments

GHG Scope
Scope 1

Application
Starting in 2020, FirstEnergy began using Wood Mackenzie as an external provider of the Long-Term Price Forecast. The most recently approved forecast from Wood Mackenzie is their 2020 H1 Reference Case. That forecast is used in long-term planning, including our Integrated Resource Plan in West Virginia. Per Wood Mackenzie, "This outlook assumes a federal carbon price in the US starting 2028. This will also serve as a backstop floor price for all states under regional programs in the future. The backstop floor price starts at $2/ton (2020 Real) in 2028 with a $2/ton annual growth rate to 2040, then continues to increase $1.5/ton annually from 2041 to 2045, before topping out at $30/ton post 2045."

Actual price(s) used (Currency /metric ton)
0

Variance of price(s) used
Reference Case: zero variance is assumed; however, we assume the price grows at a very aggressive rate reflective of current applicable State and Federal regulations and policy trends.

Type of internal carbon price
Shadow price
Other, please specify (See application description.)

Impact & implication
As a regulated utility, we are investing in our infrastructure to enable emerging technologies and electrification. We are also making the switch to a cleaner energy future by transitioning to renewable energy sources, deploying smart technologies, and meeting our customers' energy needs in a more environmentally sustainable way. We're also taking aggressive steps to improve the environmental performance of our operations in the years ahead. We've established a goal to achieve carbon neutrality by 2050, with an interim 30% GHG reduction target by 2030 (based on 2019 levels). These goals improve on our previous goal of 90% CO_2 reductions by 2045.

C12. Engagement

C12.1

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

C12.1b

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

Type of engagement
Education/information sharing

Details of engagement
Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number
100

% 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
FirstEnergy offers multiple programs to residential, commercial, and industrial customers to help them better manage their energy use. These include major electricity end uses, such as HVAC equipment, lighting and building technologies, and commercial and industrial equipment, in addition to consumer behavioral programs.

Impact of engagement, including measures of success
Through our customer energy-efficiency programs, FirstEnergy will help customers achieve cumulative reductions in electricity savings in excess of 7.5 million MWh and lower their demand on the electric grid during peak usage hours by 400 MW between 2021 and 2025.

C12.3

(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
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
Energy efficiency	Support	FirstEnergy supported numerous bills where energy efficiency was a component at both the state and federal level. FirstEnergy supports reasonable energy efficiency measures that are in the best interest of its customers.	FirstEnergy supports reasonable energy efficiency measures that are cost effective for its customers with appropriate cost recovery. In 2021, FirstEnergy submitted our Phase IV Plans for Energy Efficiency and Conservation in PA that details actions we will take to meet the requirements of the program.
Clean energy generation	Support	FirstEnergy is a strong supporter of clean energy and supports zero-emission research and development technologies.	FirstEnergy supports measures that invest in fuel diversity for all generation and has supported state clean energy legislation. As an example, FirstEnergy supported the senate bill in WV which allows utilities to develop 50 MW of solar generation.
Adaptation or resilience	Support	FirstEnergy has previously supported grid resiliency, critical infrastructure efforts, and fuel security provisions in legislative language.	FirstEnergy is committed to supporting the electric infrastructure, mitigation of power outages, continued delivery of vital services as well as maintaining the flow of power to facilities critical to public health, safety, and the welfare of our customers.
Other, please specify (Electro-technologies)	Support	FirstEnergy supports technologies that reduce emissions, increase efficiencies and are shown to provide a safer work environment.	FirstEnergy supports legislation to establish a program to provide rebates for expenditures for energy-efficient electro-technologies that are used to replace fossil fuel-fired technologies.

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

Is your position on climate change consistent with theirs?

Please select

Please explain the trade association's position

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

FirstEnergy will make related information available in the future pursuant to its shareholder commitments.

C12.3e

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

FirstEnergy participates in the Electric Power Research Institute (EPRI), which conducts research on all aspects of electric power production and use, including fuels, generation and delivery, efficient management of energy use, environmental effects, sustainability, and energy analysis. FirstEnergy participates in EPRI's Low Carbon Resource Initiative, which is focused on low- and zero-carbon energy technologies, and also funds EPRI's Energy, Environmental, and Climate Policy Analysis. FirstEnergy also participates in other initiatives with industry R&D consortiums and universities to address technology needs for its various business units in areas such as plant operations and maintenance, major component reliability, environmental controls, advance energy technologies, and transmission/distribution infrastructure to improve performance and develop new technologies for advanced energy and grid applications.

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?

The Policy and Support group handles internal coordination to ensure consistent positions throughout the company on both federal and state legislation and market policy issues. The Policy and Support group has a policy process that assesses various policy proposals. The process begins with our External Affairs Team identifying proposed legislation or other issues that need a FirstEnergy position/response. Then the proposed legislation/issue is sent to an Initial Review Team composed of internal subject matter experts to review and develop a position. Finally, the position is reviewed and approved by a cross-functional Management Review Team.

FirstEnergy's Emerging Technologies team is responsible for developing the overall corporate strategy as it pertains to new, emerging technologies, such as electrification, energy storage, distributed energy resources and grid modernization. As part of that responsibility, the Emerging Technologies team is also responsible for monitoring and developing strategies as it pertains to policies at the state and federal level that drive the development of these technologies. The Emerging Technologies team is a key internal stakeholder that provides expertise and guidance on climate-related legislation at the federal and state levels.

FirstEnergy's Environmental Department leads the Company's efforts and strategy as it pertains to all environmental regulations, guidelines, and initiatives at the local, state, and federal level. That includes climate-related issues dealing with regulation, policy, socio-economic impacts, and adaptation. The Environmental group is a key internal stakeholder that provides expertise and guidance on climate-related legislation at the federal and state levels.

FirstEnergy's Corporate Responsibility team is responsible for evaluating ways to create long-term stakeholder value through the implementation of a business strategy that focuses on positively impacting our stakeholders. They lead efforts related to our environmental, social, and governance strategy, including the publication of our 2019 Climate Report and our recently released Climate Position and Strategy. The Corporate Responsibility group is a key internal stakeholder that provides expertise and guidance on climate related legislation at the federal and state levels as well.

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 mainstream reports

Status
Complete

Attach the document
2020 Annual Report.pdf
2020 Annual Report.pdf

Page/Section reference
pg. 5

Content elements
Strategy
Emission targets
Other metrics

Comment

Publication
In mainstream reports

Status
Complete

Attach the document
FirstEnergy 2021 Proxy Statement.pdf

Page/Section reference
Pg. 82-83

Content elements
Governance
Strategy
Emission targets

Comment

Publication
In voluntary communications

Status
Complete

Attach the document
2020 climate-strategy.pdf

Page/Section reference

Content elements
Governance
Strategy
Emissions figures
Emission targets

Comment

Publication
In voluntary communications

Status
Complete

Attach the document
FEstrategicplan 2021.pdf

Page/Section reference
Customers, Corporate Social Responsibility,

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Publication
In voluntary communications

Status
Complete

Attach the document
climate-report2019.pdf

Page/Section reference

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

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	Senior Vice President, Strategy	Other, please specify (C-Suite officer)

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
I am submitting my response	Investors	Public

Please confirm below
I have read and accept the applicable Terms