FirstEnergy Corporation - Climate Change 2023



C0. Introduction

C_{0.1}

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

Headquartered in Akron, Ohio, FirstEnergy is a fully regulated electric utility with over 12,000 employees dedicated to integrity, safety, reliability and operational excellence. Our subsidiaries are involved in the transmission, distribution and regulated generation of electricity. 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. FirstEnergy's Monongahela Power subsidiary operates two regulated coal plants in West Virginia.

As a responsible corporate citizen, FirstEnergy is committed to managing our environmental impacts and addressing climate-related risks and opportunities. We recognize that climate change is a significant global challenge and we are taking proactive steps to reduce our carbon footprint and support the transition to a low-carbon economy. Our Climate Change Strategy aligns with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations and includes identifying and assessing climate risks and opportunities, setting emissions reduction targets, and developing plans to mitigate risks and capitalize on opportunities. We have set ambitious goals to reduce our carbon footprint and achieve net-zero carbon emissions from our operations (Scope 1) by 2050. To achieve this, we are investing in renewable energy, exploring innovative technologies, considering a thoughtful transition from coal generation, and promoting energy efficiency. At FirstEnergy, we believe that managing climate-related risks and opportunities is essential to our long-term success and the well-being of our communities. We are committed to transparency and open communication about our approach to climate oversight and environmental stewardship and will continue to monitor and assess our impacts and take proactive steps to address them.

For the purposes of this CDP report, all financial and emissions information is based on FirstEnergy's 2022 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.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date

January 1 2022

End date

December 31 2022

Indicate if you are providing emissions data for past reporting years

No

Select the number of past reporting years you will be providing Scope 1 emissions data for <Not Applicable>

Select the number of past reporting years you will be providing Scope 2 emissions data for <Not Applicable>

Select the number of past reporting years you will be providing Scope 3 emissions data for <Not Applicable>

C0.3

(C0.3) Select the countries/areas in which you operate.

United States of America

C0.4

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

USD

(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

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier	
Yes, an ISIN code	US3379321074	

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	Responsibilities for climate-related issues		
of			
individual			
or			
committee			
Board-level	The board has five standing committees that, through their respective oversight responsibilities, assist in guiding FirstEnergy's Climate Strategy and related efforts. The Corporate Governance,		
committee	Corporate Responsibility and Political Oversight Committee has general responsibility for oversight of Employee, Environmental, Social, and Governance (EESG) matters and regularly receives		
	climate-related updates at its meetings. In coordination with the Corporate Governance, Corporate Responsibility and Political Oversight Committee, the Operations and Safety Oversight Committee		
	reviews and monitors environmental-related strategies, initiatives and policies, including in the area of climate change. The Finance, Audit and Compensation Committees also provide specific		
	oversight of EESG matters that fall within the scope of the responsibilities set forth in each of their charters. Reports to the board and its committees are typically provided by members of the senior		
	leadership team or other company leaders, with input and support from the relevant cross-functional, management-level committees and other subject matter experts. Discussions occurring at the board		
	committee level, in turn, are regularly reported to the full board, including climate-related topics as appropriate.		

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		 Please explain
Scheduled – all meetings	Reviewing and guiding annual budgets Overseeing major capital expenditures Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Overseeing the setting of corporate targets Monitoring progress towards corporate targets Reviewing and guiding the risk management process	The Corporate Governance, Corporate Responsibility and Political Oversight Committee, and the Operations and Safety Oversight Committee reviews and monitors environmental-related strategies, initiatives and policies, including in the area of climate change. The Finance, Audit and Compensation Committees also provide specific oversight of EESG matters that fall within the scope of the responsibilities set forth in each of their charters.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	issues	board-level competence	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1		At least one member of our board has extensive experience with energy transition, clean energy, and energy sustainability. This individual is a member of the Corporate Governance, Corporate Responsibility and Political Oversight Committee.	<not applicable=""></not>	<not applicable=""></not>

C1.2

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

Position or committee

Sustainability committee

Climate-related responsibilities of this position

Monitoring progress against climate-related corporate targets

Assessing climate-related risks and opportunities

Coverage of responsibilities

<Not Applicable>

Reporting line

Other, please specify (The individuals represented in the committee have senior level reporting lines.)

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

Our Corporate Responsibility Steering Committee is composed of senior leaders from across the companies five organizational pillars, including the majority of our Senior Leadership team. The committee oversees our corporate responsibility approach and EESG initiatives, including those related to climate, with the goal of driving transparency and continuous improvement in the companies EESG performance. The committee receives a report from the Climate Subcommittee at regularly scheduled meetings and facilitates and provides input on climate updates to the board or board committees. The Climate Subcommittee monitors climate related initiatives to help ensure alignment with our climate and company strategies, benchmark our progress against peers and evaluate climate related stakeholder expectations.

Position or committee

Chief Risks Officer (CRO)

Climate-related responsibilities of this position

Developing a climate transition plan

Conducting climate-related scenario analysis

Monitoring progress against climate-related corporate targets

Assessing climate-related risks and opportunities

Managing climate-related risks and opportunities

Coverage of responsibilities

<Not Applicable>

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

The CRO provides executive-level oversight of day-to-day risk and has a standing Enterprise Risk Management report on the Board's Audit Committee agenda at least quarterly and also updates the full board on key risk topics. These reports provide oversight and monitoring to help ensure that appropriate risk polices and management processes, including with respect to climate, are established and executed in accordance with the proscribed limits and approval levels.

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	No, not currently but we plan to introduce them in the next two years	FirstEnergy is evaluating the inclusion of climate-focused incentives.

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	1	5	
Long-term	5		

(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 climate-related 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) enforces the Clean Air Act, comprehensive federal law that regulates air emissions from stationary and mobile sources. These regulations affect FirstEnergy's operations and are fully incorporated into our risk consideration.
Emerging regulation	Relevant, always included	Emerging federal, state and local statutes and regulations, or EPA actions under existing rules could be impactful to FirstEnergy's operations. New federal, state and local statutes and 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. 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 behaviour 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 has proposed and is reviewing comments regarding the disclosure of climate-related information. The rules, once finalized, may require external audits or data not currently tracked and disclosed today by FirstEnergy. FirstEnergy strives to remain in compliance with all potential regulations and is actively building capabilities to meet future disclosure requirement.
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. Thus, sustained climate-related changes in weather patterns could affect the market demand for energy and cause FirstEnergy 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 be balanced with the considerations of current policies, regulations, data transparency, and potential 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

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

Changes to legislation and regulation of greenhouse gas (GHG) emissions 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 GHG reduction targets become more aggressive, FirstEnergy could also face additional compliance risks to the extent new compliance targets outpace our planned investment.

Time horizon

Long-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 state and federal legislation aimed at reducing GHG emissions, 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 away from 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

Our business plan incorporates costs associated with management of climate-related policy and related legal risks.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Technology	Transitioning to lower emissions technology

Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

FirstEnergy 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, but recognizes their potential to increase costs for our company and customers.

Cost of response to risk

Description of response and explanation of cost calculation

In response to this risk, FirstEnergy is executing our Energizing the Future program, an \$8 billion investment plan (2021-2025) focused on investments that support clean energy integration while also improving grid reliability and resiliency. This includes embracing innovation and incorporating new technologies and tools that support the shift to increased renewables and maintain our focus on reliable, affordable service for customers.

FirstEnergy realizes that a low-carbon future depends on a robust and reliable transmission system. FirstEnergy continues to work with developers, researchers, and policymakers to better understand these related risks and help advance new technologies that are critical to the effective and efficient operation of the changing transmission and distribution system.

Commen

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

Current regulation

Mandates on and regulation of existing products and services

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 have provided customers access to increased energy efficiency opportunities. in addition, many state legislatures, such as Pennsylvania, Ohio, and Maryland, have set energy efficiency targets. Failure to meet these requirements may subject FirstEnergy to significant financial penalties and reputational risk. Beyond energy efficiency programs, other factors could adversely affect FirstEnergy's revenues, including distributed energy resources (DERs), customer owned renewables, and other developments that decrease electricity sales

Time horizon

Short-term

Likelihood

Unlikely

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

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 per state). Additionally, FirstEnergy's distribution revenues in certain jurisdictions will be lower because of reduced usage arising from its Energy Efficiency programs.

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 2022, FirstEnergy invested \$165 million to support customer-centered energy efficiency programs. Our energy efficiency programs have a strong track record of meeting or significantly exceeding state targets.

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. It is exceptionally unlikely that FirstEnergy would incur being fined the full \$160 million in potential fines; however reduced revenues are likely in various jurisdictions until the operating companies 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 plants 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 and Monongahela Power Company's (Mon Power) 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

FirstEnergy continues to evaluate opportunities for regulated renewable generation sources. In 2022, the Public Service Commission of West Virginia conditionally approved five projects to be completed by the end of 2025, which will together total at least 50 megawatts of renewable solar generation. FirstEnergy plans to thoughtfully transition away from our regulated coal generation fleet in West Virginia no later than 2050.

In 2022, Mon Power and Potomac Edison have filed with the Public Service Commission of West Virginia for approval to undertake a multiyear environmental compliance program at the current operating coal plants. The approximately \$142 million investment would enable new wastewater treatment projects necessary to meet the U.S. Environmental Protection Agency's effluent limitation guideline requirements for plants operating beyond 2028.

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

FirstEnergy views 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 customers embrace electrification through equipment and fleet 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 Maryland, our \$5.9 million EV infrastructure program includes installation and ownership of up to 59 EV chargers and a rebate program for residential and multi-unit dwellings. A \$49.92 million EV infrastructure program in New Jersey that was approved in June 2022. We are currently evaluating additional programs but cannot yet estimate the financial impact.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

FirstEnergy started several pilot programs to capture the opportunities for electric vehicle growth:

In Maryland, FirstEnergy plans a \$7 million dollar pilot program that will lead to the installation and ownership of 59 L2/DC charging stations. This program also includes over \$500,000 in related consumer rebates.

In New Jersey, FirstEnergy's EV Driven program includes \$15 million in incentives for public-access DC fast charging ports and \$14 million in incentives for residential/commercial customers.

As a part of the Ohio Grid Mod II program, pending regulatory review and approval, FirstEnergy included \$7 million of incentives and other costs for residential/commercial/governmental customers and \$1.6 million for investment and maintenance of battery storage system designed to support the distribution system near increased EV charging load.

Comment

FirstEnergy cannot fully 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, 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. In

2022, we realized about 580,000 MWhs in incremental annual electricity savings from our energy efficiency measures.

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 energy-efficiency programs, FirstEnergy aims 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.

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 plans to 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 10,000 metric tons of GHG by 2030.

Comment

FirstEnergy cannot currently estimate the costs to realize this opportunity.

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a climate transition plan within two years

Publicly available climate transition plan

<Not Applicable>

Mechanism by which feedback is collected from shareholders on your climate transition plan

<Not Applicable>

Description of feedback mechanism

<Not Applicable>

Frequency of feedback collection

<Not Applicable>

Attach any relevant documents which detail your climate transition plan (optional)

<Not Applicable>

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

While our transition plan will meet the 1.5°C goal to become carbon neutral by 2050, many components of our current plan do not meet the criteria of a credible transition plan as defined. Additional components our company expects to pursue over the next two years include, disclosing time-bound financial planning details, such as Science Based Targets (SBT), and third-party verified emissions data for Scope 1, 2 and 3.

Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

		, ,, ,	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative	<not applicable=""></not>	<not applicable=""></not>

C3.2a

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

Climate- scenario		1	alignment of	Parameters, assumptions, analytical choices
Transition scenarios	Customized publicly available transition scenario	Company- wide	above	In 2022, FirstEnergy conducted a scenario that includes insights from low-carbon (approximately 1.5°C) and high-carbon (approximately 4.5°C) scenarios. We believe FirstEnergy is well-positioned to mitigate the risks and act on the opportunities that could emerge in both the low-carbon and high-carbon scenarios we leveraged. Physical risks from climate change are expected to emerge in both and low and high carbon scenarios, but a significantly greater and corresponding costs are projected in the high-carbon scenario. Among many efforts, Our Energizing the Future and Distribution Grid of the Future programs, which remain focused on reducing the frequency and duration of outages and strengthening grid reliability and resiliency, can help us prepare to mitigate the potential physical impacts of climate change. Transition risks and opportunities, such as new climate-related regulations, the rise of electrification and increased renewables, are presented in both a low-and high-carbon scenarios but are expected to be significantly more impactful in a low-carbon scenario. Investments needed in transmission and distribution systems and enable electrification, renewables and other energy transition trends are well aligned with our company strategy. Our transmission and distribution programs provide a solid foundation from which we can prepare to mitigate risks associated with increased demand and complex distributed resources and capitalize on opportunities to enable the energy transition.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

How will a change in climate affect FirstEnergy our business model and how will FirstEnergy assist our region in meeting emission goals?

Results of the climate-related scenario analysis with respect to the focal questions

FirstEnergy's scenario analysis describes the rapid and widespread electrification of end-use technologies, including motor vehicles and heat pumps, required to achieve a 90% reduction in U.S. CO2 emissions. Additionally, it assumes that renewables and other zero-carbon resources dominate the generation mix by 2050. Achieving this level of decarbonization would require significant increase in utility-scale renewable energy projects. These findings emphasize the idea that FirstEnergy needs to increase investments in transmission and distribution network, including investments in a smarter, more flexible grid.

A highly electrified economy will increase the load on our system dramatically. Utilities, such as FirstEnergy, will play a central role in modernizing and hardening systems to meet service obligations, accommodating a changing generation mix, and moving towards electrification of end-use technologies.

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 of and control over their energy usage. In response, we provide several energy efficiencies programs: Home Energy Analyzer, appliance recycling, appliance and HVAC rebates, energy audits, energy efficiency kits, and energy saving programs geared towards customers with limited income. Additionally, we plan to install smart meters for 80% of our customers by 2026. 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 EESG 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 note 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. We are a member of 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 distributed energy resource (DER) technologies.
Operations	Yes	From an operational perspective, risks are reviewed using a top-down and bottom-up approach. Top down: The Strategic Plan includes an annual risk assessment to evaluate potential risks at the inherent and residual level and determine 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 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	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. Our risk management strategy categorizes risks as those to avoid, mitigate, transfer or accept the risk. The ERM framework is used in activities from strategic and financial planning to down to individual projects, so risks can be effectively identified and managed. This assists in preparing resources to minimize the risks and seize opportunities to successfully achieve goals. The ERM process is supported by FirstEnergy leadership including, but not limited to, the board of directors, the Audit Committee, the Finance Committee, and 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 committees 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 are 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, 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 FirstEnergy. They can be used to support a decision to fund or not fund business decisions including but not limited to staffing levels, reporting requireme
		In addition, by modernizing our transmission and distribution systems, supporting widespread electrification, and incorporating emerging smart technologies, we will enable our customers and communities to thrive in a low-carbon economy.

C3.5

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy		
Row 1	No, and we do not plan to in the next two years	<not applicable=""></not>		

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

Is this a science-based target?

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

Target ambition

<Not Applicable>

Year target was set

2020

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2 accounting method

<Not Applicable>

Scope 3 category(ies)

<Not Applicable>

Base year

2019

Base year Scope 1 emissions covered by target (metric tons CO2e)

18102068

Base year Scope 2 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

<Not Applicable>

Trot / Ippiloadios

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e) <Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)

<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

18102068

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1:

Purchased goods and services (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste

generated in operations (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting

(metric tons CO2e) <Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream

leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3,

Category 9: Downstream transportation and distribution (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10:

Processing of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold

products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12:

End-of-life treatment of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13:

Downstream leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons

CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e) <Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e) <Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories) <Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

Target year

2030

Targeted reduction from base year (%)

30

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

16535625

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

 ${\bf Scope~3, Category~2: Capital~goods~emissions~in~reporting~year~covered~by~target~(metric~tons~CO2e)}\\$

<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e) <Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e) 16535625

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

The target covers our scope 1 emissions, which includes stationary combustion, mobile sources, and SF6 emissions.

Plan for achieving target, and progress made to the end of the reporting year

FirstEnergy has taken key steps toward reducing our emissions and improving the sustainability of our operations as outlined in our Climate Strategy. This includes, replacing aging equipment, electrifying our vehicle fleet, and utilizing operational flexibilities at our generation facilities.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Abs 2

Is this a science-based target?

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

Target ambition

<Not Applicable>

Year target was set

2020

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2 accounting method

<Not Applicable>

Scope 3 category(ies)

<Not Applicable>

Base year

2019

Base year Scope 1 emissions covered by target (metric tons CO2e)

18102068

Base year Scope 2 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

<Not Applicable:

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

Base year total Scope 3 emissions covered by target (metric tons CO2e)

<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

18102068

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e) <Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e) <Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories) <Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes 100

Target year

2050

Targeted reduction from base year (%)

100

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

16535625

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

16535625

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

The target covers our Scope 1 emissions, which includes stationary combustion, mobile sources, and sulfur hexafluoride (SF6) emissions.

Plan for achieving target, and progress made to the end of the reporting year

FirstEnergy has taken key steps toward reducing our emissions and improving the sustainability of our operations as outlined in our Climate Strategy. This includes, replacing aging equipment, electrifying our vehicle fleet, and utilizing operational flexibilities at our generation facilities.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

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

Net-zero target(s)

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 two years

Please explain target coverage and identify any exclusions

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.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Unsure

Planned milestones and/or near-term investments for neutralization at target year

<Not Applicable>

Planned actions to mitigate emissions beyond your value chain (optional)

C4.3

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

Yes

C4.3a

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

Number of initiatives		Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)	
Under investigation			
To be implemented*			
Implementation commenced*			
Implemented*	3	1326100	
Not to be implemented			

C4.3b

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

Initiative category & Initiative type

Transportation	Company fleet vehicle replacement

Estimated annual CO2e savings (metric tonnes CO2e)

1100

Scope(s) or Scope 3 category(ies) where emissions savings occur

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

Other, please specify

Other, please specify (Customer Energy Efficiency)

Estimated annual CO2e savings (metric tonnes CO2e)

1325000

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

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

Energy efficiency and/or peak demand reduction policies, including annual incremental energy efficiency targets of up to 2% of total customers' usage, have been established in certain states to meet long-term customer and community sustainability needs. We offer a suite of energy efficiency programs to meet or exceed these reduction targets while also supporting system reliability and lowering customers' demand for electricity. Residential customers can save energy through significant incentives that offset the costs of major home efficiency upgrades, such as home insulation and weatherization, major appliance upgrades or heating and cooling system improvements. Others may benefit from smaller, incremental changes such as lighting improvements, enhanced energy usage data and education, or kits that provide useful energy-efficient products, such as LED light bulbs.

Initiative category & Initiative type

Fugitive emissions reductions

Other, please specify (Replacement of aging equipment)

Estimated annual CO2e savings (metric tonnes CO2e)

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

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

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

Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

By responsibly replacing aging equipment, such as circuit breakers and substation buses, we aim to avoid fugitive emissions of SF6. We are unable to calculate the annual emissions saved as it can vary year to year as equipment is not replaced on a set schedule.

C4.3c

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

Method	Comment
regulatory	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.
energy efficiency	We are focused on helping our customers reduce their overall energy consumption including gasoline and natural gas along with electricity. 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.
,	FirstEnergy is a limited partner with Energy Impact Partners (EIP), a venture capital firm. In 2022, FirstEnergy invested \$2.5 million. 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?

No

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) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

Name of organization(s) acquired, divested from, or merged with

<Not Applicable>

Details of structural change(s), including completion dates

<Not Applicable>

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<not applicable=""></not>

C5.2

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

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 our 2019 Scope 2 emissions. These 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. 2022 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.

Scope 3 category 1: Purchased goods and services

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

31927583

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Scope 3 category 5: Waste generated in operations Base year start January 1 2019 Base year end December 31 2019 Base year emissions (metric tons CO2e) 20096 Comment Scope 3 category 6: Business travel Base year start January 1 2019 Base year end December 31 2019 Base year emissions (metric tons CO2e) 7481 Comment Scope 3 category 7: Employee commuting Base year start Base year end Base year emissions (metric tons CO2e) Scope 3 category 8: Upstream leased assets Base year start Base year end Base year emissions (metric tons CO2e) Comment Scope 3 category 9: Downstream transportation and distribution Base year start Base year end Base year emissions (metric tons CO2e) Comment Scope 3 category 10: Processing of sold products Base year start Base year end Base year emissions (metric tons CO2e) Comment Scope 3 category 11: Use of sold products Base year start Base year end Base year emissions (metric tons CO2e) Scope 3 category 12: End of life treatment of sold products Base year start Base year end

Base year end
Base year emissions (metric tons CO2e)
Comment
Scope 3 category 13: Downstream leased assets
Base year start

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

CDP

Scope 3 category 14: Franchises Base year start Base year end Base year emissions (metric tons CO2e) Comment Scope 3 category 15: Investments Base year start Base year end Base year emissions (metric tons CO2e) Comment Scope 3: Other (upstream) Base year start Base year end Base year emissions (metric tons CO2e) Comment Scope 3: Other (downstream) Base year start Base year end Base year emissions (metric tons CO2e) Comment C5.3 (C5.3) 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) 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) 16535625 Start date <Not Applicable> End date <Not Applicable> Scope 1 emissions Include stationary combustion, mobile sources, fugitive emission (SF6) 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

This excludes emissions from the leakage of refrigerants to provide cooling to office facilities, in addition to natural gas and other fuels used in boilers to provide heating to facilities.

C6.3

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

Reporting year

Scope 2, location-based

874650

Scope 2, market-based (if applicable)

886450

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 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 relevant, explanation provided

Emissions in reporting year (metric tons 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

As determined by GHGP Scope 3 Technical Guidance, utilities are encouraged to account for the emissions generated from raw material extraction and combustion in category 3: fuel and energy-related activities. Therefore, this category is not relevant for FirstEnergy.

Capital goods

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

As determined by GHGP Scope 3 Technical Guidance, if major capital purchases occur only once every few years, Scope 3 emissions from capital goods fluctuate significantly from year to year. As emissions from capital goods are dependent on the expenditures incurred during the fiscal year, this is not expected to be a material source of emissions for Scope 3 activities and, therefore, is not relevant to FirstEnergy's emissions footprint.

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

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

31804539

Emissions calculation methodology

Supplier-specific method

Average data method

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

Λ

Please explain

Based on the definition of "Applicability" as defined by GHGP Scope 3 Technical Guidance, for each of the activities, Activity A "Upstream emissions of purchased fuels" and Activity D "Generation of purchased electricity that is sold to end users" are applicable to utility companies and energy retailers. Therefore, these activities are both relevant for FirstEnergy.

It was determined that emissions under Activity B "Upstream emissions of purchased electricity" were not applicable based on the GHGP Scope 3 Technical Guidance definition. First, FirstEnergy supplies electricity to owned and leased office facilities and, therefore, acts as its own customer. As emissions "Generated of purchased electricity that is sold to end users" fall under Activity D and FirstEnergy is its own customer, it was determined that these emissions are already reported under Activity D. Additionally, emissions from electricity that are consumed by the generating facilities as a part of maintaining operations are captured under Scope 1 calculations, and, therefore, are excluded from Scope 3 reporting categories.

Additionally, Activity C "Transmission and distribution (T&D) losses" are accounted for as a part of the Scope 2 emissions calculations. Therefore, emissions from Activity C are excluded from Scope 3 calculations to avoid double counting of emissions.

Upstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

Transportation of fuels and energy consumed by the reporting company should be captured under Category 3: Fuel and energy related activities. As determined by GHGP Scope 3 Technical Guidance, transportation and distribution of logistical products are likely not significant sources of Scope 3 emissions for FirstEnergy, as these products would be for maintaining ongoing workplace operations.

Waste generated in operations

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

18752

Emissions calculation methodology

Waste-type-specific method

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

100

Please explain

Each month, vendors send waste data to FirstEnergy and categorize each type of waste. Several of our generation plants utilize a legacy database to track waste data. The environmental coordinators at each plant submit data to a central database to which the waste process owner has access. Some waste items are excluded from the legacy database due to operations at the plant (e.g., no scrap metal bins at the plant). Waste generated in operations does not represent a significant source of emissions for FirstEnergy, which indicates the business's primary operations do not correlate with waste generation. However, as the data is readily available to calculate Scope 3 emissions, FirstEnergy will continue to calculate and report Scope 3 emissions for waste generated in operations.

Business travel

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

7156

Emissions calculation methodology

Distance-based method

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

100

Please explain

The primary emissions generating activity for this category involves employee travel, which can be tracked by a vendor, the travel agency used by FirstEnergy. As this activity is not critical to the operations of FirstEnergy it most likely will not result in a material impact on Scope 3 emissions

Employee commuting

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

As determined by GHGP Scope 3 Technical Guidance, the locations of employee dwellings and chosen methods of commuting are highly variable and typically outside the influence of their employer. As such, there are likely no significant emission reductions initiatives that could be undertaken by FirstEnergy for this category. We conclude that this category is not relevant.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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 leases a small percentage of facilities for its operations and thus will not be a significant source of Scope 3 emissions.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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 primary product sold by FirstEnergy is electricity. The transportation and distribution of sold electricity occurs on power lines owned or controlled by FirstEnergy. Additionally, the emissions associated with the transportation and distribution of electricity (transmission and distribution losses) are captured under Scope 1.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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 is involved in the business of delivering electricity to consumers. Electricity is not processed, transformed, or included in another product prior to being delivered to the end consumer.

Use of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

Emissions associated with the generation of electricity are captured under Scope 1. Reporting emissions under this category would result in double counting of emissions.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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 is involved in the business of delivering electricity to consumers. Electricity is consumed, which does not result in any emissions from waste disposal or required end-of-life treatment.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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 lease any downstream assets.

Franchises

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

Emissions in reporting year (metric tons 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

Emissions in reporting year (metric tons 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 Emissions in reporting year (metric tons 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 0.946 Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e) 17410275 Metric denominator megawatt hour generated (MWh) Metric denominator: Unit total 18398665 Scope 2 figure used Location-based % change from previous year 7.7 Direction of change Increased Reason(s) for change Divestment Change in output Please explain Due to market conditions and increased demand for energy, the coal facilities needed to run more to meet that demand. C7. Emissions breakdowns

C7.1

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

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	16445616.8	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	1960.8	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	736.25	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	87311.07	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)		Total gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives	0	0	3.83	87311	
Combustion (Electric utilities)	16399022.2	77.5	0	16401241.7	
Combustion (Gas utilities)	0	0	0	0	
Combustion (Other)	0	0	0	0	
Emissions not elsewhere classified	46594.57	0.92	0	47072	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/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
United States of America	16535625

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	4799205.1	39.423859	-79.553991
Harrison Power Station	11602036.7	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	16401242	
Fugitive (SF6)	87311	
Mobile Services	47072	

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

 $(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4)\ Break down your organization's total gross global Scope 1 emissions by sector or the sector of the sector o$ 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>	<not applicable=""></not>	<not applicable=""></not>
Chemicals production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Coal production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Electric utility activities	16535625	<not applicable=""></not>	Represents stationary combustion, mobile sources, and fugative emissions
Metals and mining production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Oil and gas production activities (upstream)	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Oil and gas production activities (midstream)	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Oil and gas production activities (downstream)	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Steel production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Transport OEM activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Transport services activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>

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(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

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?

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 in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<not applicable=""></not>		
Other emissions reduction activities		<not applicable=""></not>		
Divestment		<not applicable=""></not>		
Acquisitions		<not applicable=""></not>		
Mergers		<not applicable=""></not>		
Change in output	615869	Increased	3.9	This represents an increase in emissions from Stationary Combustion attributed to coal generation to meet market conditions
Change in methodology		<not applicable=""></not>		
Change in boundary		<not applicable=""></not>		
Change in physical operating conditions		<not applicable=""></not>		
Unidentified		<not applicable=""></not>		
Other		<not applicable=""></not>		

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

More than 5% but less than or equal to 10%

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

 $(C8.2a) \ Report\ your\ organization's\ energy\ consumption\ totals\ (excluding\ feeds tocks)\ in\ MWh.$

	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	18398665	18398665
Consumption of purchased or acquired electricity	<not applicable=""></not>	0	210905	210905
Consumption of purchased or acquired heat	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Consumption of purchased or acquired steam	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Consumption of purchased or acquired cooling	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Consumption of self-generated non-fuel renewable energy	<not applicable=""></not>	0	<not applicable=""></not>	0
Total energy consumption	<not applicable=""></not>	0	18609570	18609570

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.

Sustainable biomass

Heating value

Please select

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

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>

Other biomass

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

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>

Comment

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

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>

Comment

Coal

Heating value

HHV

Total fuel MWh consumed by the organization

1386320

MWh fuel consumed for self-generation of electricity

1386320

MWh fuel consumed for self-generation of heat

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>

Comment

This represents the difference in our gross and net MwH consumed by our generation facilities.

Oil

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

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>

Gae

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

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>

Comment

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

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>

Comment

Total fuel

Heating value

HHV

Total fuel MWh consumed by the organization

1386320

MWh fuel consumed for self-generation of electricity

1386320

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>

Comment

This represents the difference in our gross and net MwH consumed by our generation facilities.

C-EU8.2d

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

Coal - hard

Nameplate capacity (MW)

3082

Gross electricity generation (GWh)

18399

Net electricity generation (GWh)

17012

Absolute scope 1 emissions (metric tons CO2e)

16535625

Scope 1 emissions intensity (metric tons CO2e per GWh)

898.72

Lignite 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 Oil 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 Gas 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 Sustainable biomass 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 Other biomass 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 Waste (non-biomass) 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

Nuclear

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

CDP

Fossil-fuel plants fitted with CCS 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) Geothermal 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) Hydropower 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 Wind 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 Solar 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 Marine 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 Other 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)

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) Total Nameplate capacity (MW) 3082 Gross electricity generation (GWh) 18399 Net electricity generation (GWh) 17012 Absolute scope 1 emissions (metric tons CO2e) 16535625 Scope 1 emissions intensity (metric tons CO2e per GWh) 898.72 Comment C8.2g $(C8.2g)\ Provide\ a\ breakdown\ by\ country/area\ of\ your\ non-fuel\ energy\ consumption\ in\ the\ reporting\ year.$ United States of America Consumption of purchased electricity (MWh) Consumption of self-generated electricity (MWh) 1386320 Is this electricity consumption excluded from your RE100 commitment? <Not Applicable> Consumption of purchased heat, steam, and cooling (MWh) Consumption of self-generated heat, steam, and cooling (MWh) Total non-fuel energy consumption (MWh) [Auto-calculated]

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/area/region United States of America Voltage level Transmission (high voltage) Annual load (GWh) 70601 Annual energy losses (% of annual load) Scope where emissions from energy losses are accounted for Scope 2 (location-based) Emissions from energy losses (metric tons CO2e) 784419 Length of network (km) 38753 Number of connections 6214077 Area covered (km2) 1683492 Comment FirstEnergy calculates transmission and distribution losses as part of 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. Number of connections is based on customers served. Country/area/region United States of America Voltage level Distribution (low voltage) Annual load (GWh) 70601 Annual energy losses (% of annual load) 3.5 Scope where emissions from energy losses are accounted for Scope 2 (location-based) Emissions from energy losses (metric tons CO2e) Length of network (km) 441794 **Number of connections** 6214077 Area covered (km2) 1683492

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 transmission and distribution emissions, energy losses, and annual load. Number of connections is based on customers served.

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C9.1

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

Description

Waste

Metric value

2505071

Metric numerator

Coal Combustion Residuals (CCR) Generated (MT)

Metric denominator (intensity metric only)

Gross MWh generated

% change from previous year

0.83

Direction of change

Decreased

Please explain

We have not seen a significant change to CCR this past reporting cycle. These materials are transported to state-of-the-art dry disposal facilities that use liners and leachate collection systems, as well as extensive groundwater monitoring, to ensure environmental protection. We maintain a coal combustion residual (CCR) management program to meet all compliance requirements of the Federal Coal Combustion Residual regulations. When possible, we also strive to beneficially use CCRs, which are common ingredients in concrete roads, drywall and a wide variety of other construction materials. By diverting CCRs from landfill to more beneficial uses, we reduce the need for waste disposal sites.

C-EU9.5a

(C-EU9.5a) Break down, by source, your organization's CAPEX in the reporting year and CAPEX planned over the next 5 years.

Coal - hard

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAREV showed as with a set 5 complete some few with a few this course of 0 of the 1 OAREV showed few some some

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years 0

Most recent year in which a new power plant using this source was approved for development

<Not Applicable>

Explain your CAPEX calculations, including any assumptions

We do not separately account for our coal assets. On December 17, 2021 MonPower and Potomac Edison filed with the WVPSC for approval of environmental compliance projects at the Ft. Martin and Harrison Power Stations to comply with the EPA's ELG and operate these plants beyond 2028. The request includes an expected \$142 million in capital investment.

Lignite

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

Oil

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

Gas

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

Sustainable biomass

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

Other biomass

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

Waste (non-biomass)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

Nuclear

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

Geothermal

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

Hydropower

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

Wind

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

Solar

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

Marine

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

Fossil-fuel plants fitted with CCS

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

Other renewable (e.g. renewable hydrogen)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

Other non-renewable (e.g. non-renewable hydrogen)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development <Not Applicable>

Explain your CAPEX calculations, including any assumptions

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		CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
Charging networks	Incentives and other costs for residential/ commercial/ governmental customers, Install and own L2/DC Fast Chargers,	54000000		
Other, please specify (Small Scale battery storage)	Battery Storage Pilot Programs	9800000		
Prosumer services	Energy Efficiency Programs	717000000		

$\hbox{C-CE} 9.6/\hbox{C-CG} 9.6/\hbox{C-CH} 9.6/\hbox{C-CN} 9.6/\hbox{C-CO} 9.6/\hbox{C-EU} 9.6/\hbox{C-MM} 9.6/\hbox{C-OG} 9.6/\hbox{C-RE} 9.6/\hbox{C-ST} 9.6/\hbox{C-TO} 9.6/\hbox{C-TS} 9.6/\hbox{C-$

(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
F	Row 1	Yes	FirstEnergy sponsors research through EPRI on a variety of low carbon technologies and applications

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.

	Stage of development in the reporting year	investment over the	reporting year (unit currency as	investment planned over	Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan
Unable to disaggregate by technology area	<not applicable=""></not>	40			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	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5? No, we do not verify any other climate-related information reported in our CDP disclosure

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)? No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

C11.3

(C11.3) Does your organization use an internal price on carbon? No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

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

Yes, our customers/clients

C12.1b

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

Type of engagement & Details of engagement

Education/information sharing

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

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 energy use behavior 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.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

No, and we do not plan to introduce climate-related requirements within the next two years

C123

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

No, and we do not plan to have one in the next two years

Attach commitment or position statement(s)

<Not Applicable>

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

We seek insight from various stakeholder groups as we develop FirstEnergy's strategies, programs and policies on a variety of issues. This includes discussing energy-related matters with local, state and federal policymakers, as well as consumer and small-business advocates, peer utilities, customers, investors, nongovernmental organizations, chambers and trade organizations. We are committed to considering and balancing our company's strategies and goals, including those related to climate change, in the assessment and development of our positions on proposed legislation and regulations.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate <Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate <Not Applicable>

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

Edison Electric Institute (EII)

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position EEI recognizes that global climate change presents one of the biggest energy and environmental policy challenges the Unites States has ever faced. EEI believes that policies to address climate change should seek to minimize impacts on consumers and avoid harm to U.S. industry and the economy. In addition, EEI has stated its support of the Biden Administration's executive order on climate.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4) 2183222

Describe the aim of your organization's funding

Membership to EEI. We feel that EEI aligns with the support of our company strategic goals, including our climate strategy.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

No, we have not evaluated

Trade association

US Chamber of Commerce

Is your organization's position on climate change policy consistent with theirs?

Mixed

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position. The U.S. Chamber believes that there is much common ground on which all sides of the Climate change discussion could come together to address climate change with policies that are practical, flexible, predictable, and durable. They believe in a policy approach that acknowledges the costs of action and inaction and the competitiveness of the U.S. economy.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

200000

Describe the aim of your organization's funding

Membership fees. FirstEnergy believes that The US COC is aligned with our company strategic goals.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

No, we have not evaluated

Trade association

Other, please specify (North American Electric Reliability Corp. (NERC))

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position NERC understands that the shift to a low carbon future requires a reliable and safe energy grid. NERC established the "Reliability Impacts of Climate Change Task Force" to assess the reliability consideration of climate initiatives, and to ensure a smooth transition to a low-carbon future.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4) 296843

Describe the aim of your organization's funding

Membership Fees

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

No, we have not evaluated

C12.4

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

Publication

In voluntary sustainability report

Status

Complete

Attach the document

Page/Section reference

https://www.fecorporateresponsibility.com/fecorporateresponsibility.html

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

Comment

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

		Describe your organization's role within each framework, initiative and/or commitment
Row	We are not a signatory/member of any collaborative framework, initiative and/or commitment related to environmental	<not applicable=""></not>
1	issues	

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues		Scope of board- level oversight
Row 1	Yes, executive management-level responsibility	As part of our commitment to environmental stewardship, our Vegetation Management group employs an Integrated Vegetation Management (IVM) program across the rights-of-way that we manage. IVM enables managers to selectively remove incompatible vegetation that would threaten the integrity of our electric service, while cultivating compatible, low-growing, biodiverse vegetation that provides food and cover for insects, pollinators and wildlife. By managing both incompatible and compatible plant communities, we achieve our primary goal of delivering safe and reliable electricity to our customers while conserving and enhancing wildlife habitat.	<not Applicabl e></not

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity		Initiatives endorsed
Row 1	Yes, we have made public commitments only	Commitment to No Net Loss Adoption of the mitigation hierarchy approach Commitment to respect legally designated protected areas Commitment to avoidance of negative impacts on threatened and protected species	<not applicable=""></not>

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment

No and we don't plan to within the next two years

Value chain stage(s) covered

<Not Applicable>

Portfolio activity

<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity

<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

<Not Applicable>

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment

No and we don't plan to within the next two years

Value chain stage(s) covered

<Not Applicable>

Portfolio activity

<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity

<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

<Not Applicable>

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?

Not assessed

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection
	Land/water management
	Species management
	Education & awareness

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

		Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
F	Row	No, we do not use indicators, but plan to within	Other, please specify (FirstEnergy Transmission VM group has developed standalone vegetation monitoring protocols for the purpose of understanding
1	the next two years composition through time and quality of habitat on selected sites within our transmission service territory.)		

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
No publications	<not applicable=""></not>	<not applicable=""></not>

C16. 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.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Mgr, Corp Resp & Rating Agencies	Environment/Sustainability manager

Submit your response

In which language are you submitting your response? English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms