



Welcome to your CDP Climate Change Questionnaire 2021

C0. Introduction

C0.1

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

Exelon Corporation (Nasdaq: EXC) is a Fortune 100 energy company with the largest number of electricity and natural gas customers in the U.S. Exelon does business in 48 states, the District of Columbia and Canada, and had 2020 revenue of \$33 billion. Exelon serves approximately 10 million customers in Delaware, the District of Columbia, Illinois, Maryland, New Jersey and Pennsylvania through its Atlantic City Electric, BGE, ComEd, Delmarva Power, PECO and Pepco subsidiaries. Exelon is one of the largest competitive U.S. power generators, with approximately 31,000 megawatts of nuclear, gas, wind, solar and hydroelectric generating capacity comprising one of the nation's cleanest and lowest-cost power generation fleets. The company's Constellation business unit provides energy products and services to approximately 2 million residential, public sector and business customers, including more than three-quarters of the Fortune 100. Follow Exelon on Twitter @Exelon.

Exelon agrees with the global scientific community consensus on the profound implications of climate change and the significant consequences of inaction. Climate change and the resulting increased volatility of weather directly impact electricity demand, as well as the need for continued investments to protect and enhance the reliability and resilience of electricity supply, transmission and distribution. Exelon's owned generation fleet has one of the lowest CO2 emission rates in the U.S. and produces more of the nation's carbon-free electricity than any other company. Exelon focuses on low-carbon solutions for customers. The company is also making substantial investments to ensure that the electric grid is more efficient and resilient for customers into the future.

This report contains certain written and oral forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that are subject to risks and uncertainties. The factors that could cause actual results to differ materially from the forward-looking statements made by Exelon Corporation, Exelon Generation Company, LLC, Commonwealth Edison Company, PECO Energy Company, Baltimore Gas and Electric Company, Pepco Holdings LLC, Potomac Electric Power Company, Delmarva Power & Light Company, and Atlantic City Electric Company (Registrants) include those factors discussed herein, including those factors discussed with respect to the Registrants discussed in Exelon's 2020 Annual Report of Form 10-K in (a) Part I, ITEM 1A. Risk Factors, (b) Part II, ITEM 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, (c) Part II, ITEM 8. Financial Statements and Supplementary Data: Note 19, Commitments and Contingencies, and (d) other factors discussed in filings with the SEC by the Registrants. Readers are cautioned not to place undue reliance on these forward-looking statements, which apply only as of the date of this Report. None of the Registrants undertakes any obligation to publicly release any revision to its forward-looking statements to reflect events or circumstances after the date of this Report.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2020	December 31, 2020	No

C0.3

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

Canada
United States of America

C0.4

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

USD

C0.5

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

Equity share

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

Gas storage, transmission and distribution

Smart grids / demand response

Battery storage

Micro grids

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Board-level committee	The Corporate Governance Committee of the Exelon Board is responsible for the oversight of Exelon's environmental strategies and sustainability policies including climate change issues such as GHG mitigation and climate adaptation and resiliency. This Board Committee maintains this responsibility to ensure that there is ongoing communication on environmental issues (including the topic of climate change) at the highest levels of the company, with updates on program progress made at least annually. Because we are a provider of low carbon solutions for our customers and communities and we are the largest producer of zero carbon electricity in the United States, many elements associated with our environmental strategies are key to our overall business strategy and are also discussed on a more regular basis with the Board.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies	Producing zero carbon electricity and delivering clean energy solutions to our customers is the essence of our business. Therefore, issues related to climate change and the impacts that the changing climate will have on our customers and the business are relevant to and of interest to the Exelon board. Many elements associated with our overall business strategy include elements associated with climate change issues such as maintaining the financial viability of nuclear power plants through efficient operation, appropriate public policy and modernizing our distribution utility systems. Emerging and innovative technologies,

	Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	operational performance to maximize production from our zero and low carbon generation facilities, as well as advocacy efforts in support of policies that recognize the value of carbon free generation, are other such topics regularly included in our Board discussions and are relevant our overall business strategy. Other climate related issues are also discussed as appropriate or at least annually as part of the Corporate Governance Committee and Generation Oversight Committee agendas.
--	---	---

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Sustainability Officer (CSO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other, please specify SVP, Government and Regulatory Affairs and Public Policy	Other, please specify Legislative, regulatory, and market design for carbon reduction	Quarterly

C1.2a

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

Exelon's Chief Sustainability Officer (CSO), has direct responsibility for governance and oversight of Exelon's Climate Change Policy and associated GHG and climate change programs. These programs focus on GHG mitigation within our own operations, contributing to reducing overall emissions from the energy sector, and coordinating climate change adaptation and resiliency efforts. Heading up the Corporate Strategy and Sustainability (CSS) department, Exelon's CSO is also responsible for the overarching business strategy and long-term strategic plan for the organization. Responsibility for sustainability sits within this corporate strategy function to ensure that sustainability, including climate change, is incorporated in decision-making at the highest levels within the company. The CSS department recognizes opportunities associated with addressing climate change within the corporation, to include the development of new and emerging technologies, and maintaining a broad energy value chain perspective focused on creating value for our customers as we support a clean, reliable and affordable energy system today and in the future. Exelon's CSO presents business strategy materials at least annually to the Board of Directors, and is supported on the implementation and refinement of these programs by his management team, as well as the senior management of our operating companies, Exelon Generation, ComEd, PECO, BGE, PHI and Business Services Company (BSC). Exelon's CSO presents performance associated with goals and targets of Key Performance Indicators, which include climate change related metrics, quarterly with the CEO and Executive Committee. Our CSS department is also responsible for the aggregation of the GHG emissions of the corporation, which are monitored quarterly and verified annually. Strategic analysis of long-term climate change risks and scenario analysis are also conducted within this group, in coordination with other key areas of the company. Climate related issues are also incorporated as part of the Enterprise Risk Management process (as it relates to business model impacts) and the ISO 14001 EMS process for site level physical impacts, similarly, coordinated with CSIS's work.

C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	No Comment

C1.3a

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

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Corporate executive team	Monetary reward	Emissions reduction target Efficiency target	The Corporate executive team is rewarded for meeting key business and financial targets, which includes production targets for zero carbon electric generation that reduces emissions associated with the broader grid supply (capacity factor targets for nuclear generation and capture rates for utility scale wind and solar), investment in utility infrastructure for reliability and resiliency and driving sustainable value through clean energy advocacy and our GHG emissions reduction goal.
Business unit manager	Monetary reward	Emissions reduction target Efficiency target	Exelon utilizes a corporate scorecard that includes a specific goal for managing GHG emissions. For 2020, each Operating Company (OpCo) renewed their commitment to our corporate GHG reduction goal to reduce emissions 15% by 2022 by establishing an annual milestone target for direct and indirect CO2e emissions. These OpCo specific GHG targets were part of their OpCo level performance metrics, in addition to targets for advancement of clean energy (nuclear, renewables and distributed generation) and Scope 3 customer abatement elements (energy efficiency and renewable energy credits) as they applied to their unique business area. Performance towards these metrics is a consideration in manager personal performance evaluations, which determine annual financial incentive payments.
Environment/Sustainability manager	Monetary reward	Energy reduction target	Individual performance reviews for employees are conducted semi-annually. For those who have responsibilities linked to environmental performance (including GHG emissions) and climate initiatives (including specific GHG reduction program management and communicating on issues of climate change), their annual performance rating takes into account their performance as it relates to working towards those goals and their compensation is linked to those results. In 2020, goals specific to performance against our GHG emissions reduction

			goal and long-term climate change scenario analysis for the corporation were part of these performance plans for key individuals.
All employees	Non-monetary reward	Emissions reduction project Energy reduction project Efficiency project	Employees receive recognition through various contests and initiatives that help to communicate climate change issues and lifestyle changes that can result in a reduced carbon footprint for employees at home. Exelon recognizes outstanding employee projects that help sustain the environment while creating company value for the company or local communities through annual performance reviews. Exelon uses its Re-Invent site and Innovation Centers to encourage employees to come forward with ideas and help them blossom into projects and initiatives that can be implemented.

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	2	Short-term aligns with our immediate budget planning horizon.
Medium-term	2	6	Medium-term aligns with our longer-term financial business plans, which extend out five years.

Long-term	6	30	Long-term aligns with strategic planning process focused on overall corporate strategy, industry trends and broader outlook into the future beyond 5 years out.
-----------	---	----	---

C2.1b

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

Our definition of 'substantive financial impact' when identifying or assessing and disclosing climate-related risks is generally consistent with that used for other business risk in our regular SEC 10-K filing. These risks may be characterized in a different manner for the purposes of the CDP survey in an effort to respond to the survey's structure and specificity. For the purposes of our ERM process, we do not view climate change as a discrete risk, but rather a potential stress multiplier to existing risks and opportunities already under consideration. For example, system disruption from a weather event is a long standing risk that Exelon has integrated into its risk assessment process, and potential climate change projections for more frequent storms would be a multiplier for this risk category but not necessarily broken out as an incremental impact nor added separately. Similarly, disruption from new technology is another risk category that was already being captured in our ERM process that could also be increased by climate change-related actions, but not necessarily fully attributable to climate change. We also recognized that climate change may affect different parts of our business in different ways, and thus it is our approach to integrate climate change considerations into our regular business policies, processes, and procedures.

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

A specific climate-related risk management process

Frequency of assessment

More than once a year



Time horizon(s) covered

Short-term

Description of process

In the short-term, Exelon Generation plants undergo season readiness reviews in spring and fall each year in order to prepare for near-term projected climate impacts such as warm or colder seasonal projections, predictions for storm seasons (hurricanes and winter storms), potential for peak demand spikes and/or need for fuel use planning. These seasonal readiness reviews take into account the latest meteorological data with in-house expertise, and in some cases use models developed by the company, and based on the local watershed, to ensure cooling water system compliance.

Value chain stage(s) covered

Direct operations

Upstream

Downstream

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

Exelon has a formal, well-established approach for Enterprise Risk Management (ERM). It uses a continuous, systematic and dynamic risk identification and assessment process that works by partnering with its major operating units in a hands-on, collaborative approach to managing risk. Risk monitoring covers all geographic areas where we operate and occurs continuously throughout the year. Risk issues are regularly

reviewed with Executives as well as Exelon's Board of Directors. The ERM Policy and corresponding Corporate Risk Appetite Statement provide the framework and governance by which we address financial, regulatory/compliance, reputational, operational and strategic risks that have been identified (each of which includes elements that may be impacted by climate change either with respect to business model considerations or physical climate risks or both). Operationally, ERM interacts regularly with the business. The ERM process also works with our strategic planning process to capture risks up to 10 years out and emerging risk reporting focuses on risks beyond that horizon.

Our definition of 'substantive financial impact' when identifying or assessing and disclosing climate-related risks would be consistent with that used for other business risk in our regular SEC 10-K filing. For the purposes of our ERM process, we do not view climate change as a discrete risk, but rather a potential stress multiplier to existing risks and opportunities already under considerations. For example, system disruption from a weather event is a long standing risk that Exelon has integrated into its risk assessment process, and potential climate change projections for more frequent storms would be a multiplier for this risk category but not necessarily broken out as an incremental impact being added separately. Similarly, disruption from new technology is another risk category that was already being captured in our ERM process that could also be increased by climate change-related actions, but not necessarily fully attributable to climate change. We also recognized that climate change may affect different parts of our business in different ways, and thus it is our approach to integrate climate change considerations into our regular business policies, processes and procedures.

Potential climate change impacts to our business model (transitional risks) as identified in our ERM process are included in our corporate strategic plan. Exelon's business strategy is informed by our views of the durable trends in our industry, which we have identified as evolving customer expectations, accelerating technology development, flat to low demand growth, low natural gas prices, growing interest in clean generation, and continued development of local generation resources. Risks relating to climate change are captured as part of these durable trends. Five of the six durable trends encapsulate climate change risks and opportunities directly. Short term climate related risks include appropriate valuation for our zero-carbon nuclear generation and the need for enhancing the resiliency of our assets to withstand increased storm frequency and intensity. Over the mid-term, we see the need for continued focus on mitigating GHG emissions from our own operations, maintaining the high performance of our nuclear generation stations to sustain the ongoing supply of the highest amounts of zero carbon generation and on-going efforts to bolster resiliency in our assets and distribution systems. On the long-term, our focus is on risks associated with new and emerging technologies that might disrupt our current business model and how to set ourselves up for continued success in a carbon constrained economy long into the future. As a response to the durable trends, our four strategic focus areas work to transform these potential business risks into opportunities, building on customer and community partnerships, innovation within the energy sector, and developing/deploying low-carbon energy solutions to help meet customers' interest and need for clean energy products and services, including local renewable generation and electrification of transportation.

Specific assessment of physical climate change risks, including the use of regional projections, are being evaluated at the site level and within our infrastructure planning processes. As our utilities are required to act in the public interest, investments we make in our distribution systems need to be supported by robust analysis in order to be approved by Public Utility Commissions. Therefore, the identification of potential climate change risks is still primarily event driven, since longer-term climate projections at the local level are just becoming available and are subject to significant uncertainty, limiting their use for the preparation of adequate cost-benefit analyses. Because all Exelon utilities share best practices, a disruptive event at one utility can drive performance improvement and proactive planning across all of Exelon utilities. An example of this is our substation flood assessment process that was established and shared across Exelon operating companies in 2016, after a flood event at a single substation in ComEd territory, leading to proactive identification and implementation of flood risk mitigation actions throughout our utilities. Exelon is also taking proactive efforts to explore the integration of future climate change projections into our already robust planning processes. We have worked to expand and improve our climate risk management efforts since we joined the DOE Partnership for Electric Sector Climate Resilience as a founding member in 2015. We completed a vulnerability assessment and established our first climate change resilience plan in 2016. Since then we have completed several scenario analyses to help inform potential impacts under various climate futures. In 2020, Exelon continued this effort through ongoing review of current engineering and construction standards and the revamp of overall material condition assessment process to better identify key weather thresholds that if exceeded may cause issues for system performance. We also continue to explore ways to increase our understanding of climate change issues through scenario analysis, incorporate climate change related training, improve our planning processes, and increase coordination with local organizations working on similar climate efforts to further advance our climate change-related risk management efforts.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

A specific climate-related risk management process

Frequency of assessment

Every three years or more

Time horizon(s) covered

Medium-term
Long-term

Description of process

As part of our medium and longer term risk assessment efforts, Exelon has used various climate change scenarios and run our own exploratory long-term electric system modelling to help inform the long term viability of, or challenges to, our assets and business model as a result of climate change. In our scenario analysis efforts, we consider our own assets, as well as how our upstream power suppliers might be affected as a result of climate-related load, grid technology, regulation changes, and how our downstream customers might use or seek to buy electricity differently as a result of climate-related changes to demand needs and/or desire to adopt distributed generation. For example, in relation to physical risks, we have looked at how projected temperature changes over time might affect the efficiency of our power generation plants in various regions of the country. An example related to transitional risks, includes modelling how demand might change with the level of electrification that would be needed to meet deep decarbonization goals, and looking at the potential speed of transition if tied to sales and stock turnover. The results of these scenario analyses are shared with our risk management and corporate strategy teams to ensure these projected physical changes and transitional possibilities are considered.

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	Regulations can carry a risk of limiting the evolution of business models, especially as they relate to a public utility. A quarter century ago, all states had vertically integrated electric utility companies that were fully regulated by state public service commissions. At that time, capital spending plans were approved by Public Service Commissions (PSC). Vertically integrated utilities owned both transmission and distribution (T&D) systems, as well as the power generation resources needed to meet each utility customers' energy needs. Starting in the mid-1990s, many states elected to incorporate customer choice into their electricity markets, with a primary focus of reducing electricity costs. Today, 20 states, including all states with Exelon utilities, have implemented some form of competitive electricity markets. At the time of restructuring, vertically integrated utilities were required to divest or separate all power generation resources from their other

		<p>businesses. As a result, power generation became a competitive business with generation technologies and investments determined by market forces rather than PSC requirements. Exelon's current business model is referred to as a "competitive-integrated model," since Exelon Corporation owns both regulated T&D utilities (ACE, BGE, DPL, ComEd, PECO and Pepco), and competitive power generation (Exelon Generation) assets, as well as a retail energy business (Constellation). The strength of Exelon's business model is that we can respond to durable industry trends across the value chain to maximize customer benefits and returns on capital investment. Since the time of restructuring, expectations for grid management have evolved based on new technologies and customer interest. State regulators and other stakeholders are revisiting the role that utilities should play in the energy system of the future. Exelon is participating in these efforts to transform policies and regulations so that utilities may perform valuable functions and offer services that would benefit customers that were simply not envisioned at the time of restructuring. Examples include deploying local generation resources like solar energy, fuel cells and batteries; local resiliency projects, such as microgrids that require wire integration, local generation and energy storage; and other customer-driven measures to address climate change.</p>
Emerging regulation	Relevant, always included	<p>Lack of, or poorly designed, GHG regulations has a range of impacts on the electric sector. Exelon makes substantial capital investments every year to maintain the high performance of our emissions-free nuclear fleet. Tighter emission reduction levels, to support decarbonization of the power sector and the larger economy, could further support Exelon's zero-carbon portfolio comprised primarily of nuclear, wind and solar, while the absence of meaningful carbon limits disadvantages the portfolio. Exelon's electric generation fleet generates almost twice as much zero-carbon electricity as the next largest producer in the U.S. and has by far the lowest CO2 emission rate among the larger power producers. Exelon, together with a coalition of other electric utilities, filed a lawsuit in the U.S. Court of Appeals for the D.C. Circuit on September 6, 2019, challenging the Affordable Clean Energy (ACE) rule that repealed and replaced the Clean Power Plan (CPP) rule as unlawful. On January 19, 2021, the U.S. Court of Appeals for the D.C. Circuit held the ACE Rule to be unlawful, vacated the rule, and remanded it to the EPA. Exelon supports GHG emission reduction policies to combat climate change. This includes our participation in the Climate Leadership Council which promotes a revenue-neutral carbon tax whose proceeds would be distributed to Americans as dividends. Exelon is continuing to work with cities, states and regions where we operate to advance GHG emission reduction policies. For example, Exelon actively supported and participated in updates to the Regional Greenhouse Gas Initiative (RGGI) program where states agreed to further reduce CO2 emission budgets from 2020 to 2030. Our clean energy fleet in participating states (Nine Mile Point, R.E. Ginna and James A Fitzpatrick nuclear plants in NY; and Calvert Cliffs nuclear plant and Four Mile, Fairwind and Criterion wind farms in MD) helps ensure these reductions occur affordably without negatively impacting reliability. Exelon co-owns the Salem</p>

		nuclear generating plant with PSEG, and is supporting New Jersey, which recently rejoined RGGI, with zero-carbon. Exelon also participates in zero-emission credit (ZEC) programs in NY, NJ, and IL. Some nuclear power plants in these states are eligible for these ZEC programs. Between 2015 to 2022, Exelon's nuclear fleet will avert an estimated 650 million metric tons of GHG emissions, equivalent to removing one half of US cars from the roads for an entire year.
Technology	Relevant, always included	New and emerging technology creates a risk of disrupting existing systems and processes by approaching solutions in different ways. As a result, the centralized generation and T&D system, though still fundamentally central to the generation and distribution of electric power, is transforming. An intelligent electric network, enabled by two-way communication technologies and the expanding "internet of things," is emerging to create a smart power grid. Both regulated utilities and third parties are deploying new technologies that provide options to monitor and manage energy usage, as well as to integrate local generation resources into the emerging smart grid more efficiently. However, there are risks associated with proper integration of these new technologies and the long-term operational effectiveness in relation to the larger grid system. Constellation Technology Ventures is the venture investing organization within Exelon. Exelon has also established a series of internal working groups to foster and manage the identification and evaluation of emerging technology and innovation for Exelon and our customers. One example is our TechEXChange initiative, which is charged with exploring technology that has the potential to transform the industry through teams with representation (up to 60 individuals) across the company that collaborate with government and industry associations, national labs, top universities, venture capital and private equity firms. To date, the effort has identified more than 25 opportunities within its five focus areas of battery storage, fuel cells, vehicles powered by alternative fuels, water and hydrogen. An example of success from this is a collaboration with Argonne National Laboratory where Exelon took the lead in designing and founding Volta Energy Technologies (Volta), an independent investment company devoted to advancing battery technologies for all industry sectors by leveraging national lab testing to better direct capital investments for new technology start-ups. These innovations have the potential to impact energy markets and create new value channels for Exelon and our customers. In 2020, Exelon also welcomed its first cohort of start-ups focus on climate change impact through our newest 2c2i climate change funding initiative in partnership with Exelon Foundation, which is yet another way we are working to foster new technologies and stay involved in emerging technologies.
Legal	Relevant, always included	New or emerging markets relating to renewable, clean energy, or carbon emissions reduction offsets pose risks that are continually reviewed by our legal counsel to ensure that we are developing commercial mechanisms to participate in these new markets in a sustainable and credible manner for our customers. While the buying, trading and selling of "renewable energy credits (RECs)" has been occurring for over a decade – the unbundling of this environmental attribute from the

		<p>electron that provides power – tracking systems in the market are still maturing. This is similarly true for “carbon offsets”, which are verified reductions in GHG emissions which can also be purchased in support of carbon goals. These attribute markets are a necessary means of driving emissions reductions in the most cost-effective manner and engaging more individuals in the effort, but legal support is needed to ensure both the buyers and sellers of such products are protected. Exelon’s Constellation retail company is active in this market. In 2020, Constellation retired 5.2 million RECs for customers. Constellation also coordinates the sale of RECs associated with Exelon Generation’s renewable generation and purchases and retires RECs on behalf of Constellation NewEnergy to meet its various state RPS obligations as a retailer in 48 states. Emissions Free Energy Credits (EFECs) are certificates that represent the emission-free attributes of generating sources, such as nuclear, that also do not directly emit GHGs from combustion and can be used to meet business environmental targets or to show support for clean energy beyond renewables. In 2020, Constellation retired 11.4 million nuclear Emission-Free Energy Certificates (EFECs) for customers, as well as 2.0 million MWh to cover Exelon’s internal operational grid electric purchases. Exelon was also part of the Electric Vehicle Charging Carbon Coalition (EVCCC), which successfully developed a Verified Carbon Standard (VCS) approved methodology for capturing carbon offsets from electric vehicle charging in 2018, and is working to implement that methodology for the creation of offsets.</p>
Market	Relevant, always included	<p>Certain anomalies in wholesale power markets impede the transition to cleaner sources of electricity and pose risks for existing clean generation’s financial viability. In general, existing markets focus on lowest market costs and assign no value to clean energy, nor do emitting sources pay the social cost of their GHG emissions. Renewable Portfolio Standard mandates and Federal renewable subsidies help level the playing field for those technologies, but do not always include zero-carbon nuclear. These combined impacts are causing many nuclear plants to close before the end of their licensed lifetimes. Ten plants have closed in recent years, resulting in CO2 emissions some 34 million metric tons per year higher than if they had continued to run. In 2019, the retirements of Pilgrim and Three Mile Island added approximately 7 million metric tons per year to the CO2 no longer being avoided. Another 10 nuclear units have announced early retirement and others, including Exelon’s Byron and Dresden units, could follow should markets continue to fail to recognize the value of low carbon sources. In addition to clean energy, our customers demand an affordable and resilient power system that provides electricity under a wide range of weather and demand scenarios which could be impacted by climate-related changes. Wholesale energy markets need to evolve to properly value reliable, clean and affordable energy. Wholesale competitive power markets, as currently designed, also do not adequately consider generating resources’ ability to withstand fuel supply disruptions, whether from extreme winter weather or physical supply infrastructure risk.</p>

Reputation	Relevant, always included	<p>As the largest generator of zero-carbon electricity in the nation, Exelon's reputation is in part defined by its leadership on the issue of climate change action and the transition to a clean energy future. In addition, Exelon has set and achieved several internal reduction goals, including our first commitment with the U.S. Environmental Protection Agency (EPA) Climate Leaders program in 2008 resulting in a 36% reduction in our own emissions, and our early achievement of our Exelon 2020 goal with over 18 million metric tons of GHG abatement in a single year, Exelon has worked to show that GHG reductions can be achieved in an economically efficient manner by looking across the energy value chain and valuing all low carbon technologies equally. Nevertheless, because of Exelon's already very clean fleet, Exelon is not always perceived as achieving additional incremental reductions; Exelon's fleet's carbon intensity is already 90% lower than the industry average and achieving the rate needed from the electric sector for the US to meet its newly announced 2030 ambition. In addition, given our operation in regional electric markets, our actions often decrease overall grid emissions, reductions that are not always attributed to Exelon. While we make every effort to present the idea of GHG grid displacement or avoided emissions from clean generation already on the grid, challenges in communicating our ongoing efforts in this area poses a risk to our reputation. Continuing our leadership in this area, in 2017 Exelon established a new absolute GHG goal focused on reducing emissions from our internal operations 15% from a 2015 baseline by 2022 and closed 2020 on track to achieve this goal. Since then, Exelon has also announced a new fleet vehicle transition goal to convert 30% of our light duty vehicle fleets at all six of our utilities to electric vehicles by 2025, and most recently a goal to reduce our Exelon utility operations emissions 50% by 2030.</p>
Acute physical	Relevant, always included	<p>Acute physical risks are event-driven, and include extreme weather events, such as cyclones, hurricanes, or floods. Exelon's operating companies each have and will continue to face acute physical risks associated with the extreme events typical to their geographic location as well as projected increases in their severity and frequency over time. For our east coast utilities, these acute physical risks include severe thunderstorms, tropical storms, and hurricanes, but in recent years have also included Derecho windstorms and tornados. For our Mid-West utility, acute physical risks include severe thunderstorms, tornados, and ice storms. All areas have begun to note more intense rainfall as well, which has caused inland flooding along streams and over roadways. Because of our focus on reliability, this risk is always relevant to Exelon, and many processes and programs are in place to help prepare for such events. All Exelon assets undergo seasonal readiness efforts to ensure that they are ready for the weather projections of the summer and winter months, and each utility is investing in its systems to install advanced equipment and reinforce the local electric system, making it more weather resistant and less vulnerable to storm damage. This includes inspecting and replacing poles and trimming vegetation and trees, as well as testing and drills to keep storm response skills sharp and ensure crews are ready to</p>

		respond to severe storms or emergencies, if needed. And, as part of the Exelon family of companies, each utility can call on resources from sister utilities in Pennsylvania, Delaware, Maryland, New Jersey, Washington, D.C., and Illinois to restore power more quickly after major storms. Similarly, for Exelon Generation's assets, each unit conducts seasonal readiness reviews to ensure availability of fuel supplies and equipment performance before entering the summer or winter seasons.
Chronic physical	Relevant, sometimes included	Chronic physical risks are longer-term shifts in climate patterns, such as sustained higher temperatures, changes to typical precipitation patterns and sea level rise, that may cause chronic issues for the communities in our service territories. Based on a review of the United States Fourth National Climate Assessment, all of our operations are projected to experience varying degrees of heat increases over the coming years, with the most dramatic high heat days in the southern United States and combined heat and humidity increases in the Mid-Atlantic and Mid-West. For our plants in Texas, drought appears to be an increasing issue, while in the Mid-Atlantic our coastal utilities face issues associated with potential sea level rise in some of the areas that they serve. In the Mid-West, both periods of drought, creating cooling water challenges for our nuclear plants, and periods of excess rainfall with the potential to flood distribution system assets are shown as potential climate changes. While the extent of these threats is continuing to unfold, these potential risks are something that Exelon is beginning to consider within its infrastructure planning work. Examples of how climate change considerations are incorporated into this process include revision of current engineering and construction standards and the revamp of the overall material condition assessment process within our utilities. Through this effort we are reviewing standards associated with our most critical asset classes in an effort to identify climate critical components and thresholds that will help inform our infrastructure planning over the long-term to better capture climate change risks.

C2.3

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

Yes

C2.3a

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

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Other, please specify

Failure to Enact a Meaningful Carbon Price Mechanism

Primary potential financial impact

Decreased asset value or asset useful life leading to write-offs, asset impairment or early retirement of existing assets

Company-specific description

Investments in the electric power generation sector tend to be very capital intensive and long-lived (e.g. 40 or more years for generation). The substantial investments in power generation and transmission and distribution businesses creates financial exposure if future regulations are not appropriately anticipated and risks managed. Uncertainty surrounding new climate change and environmental regulation takes many forms, including a risk that these regulations may not value all low carbon technologies equally. Exelon is one of the largest competitive U.S. power generators, with more than 31,270 megawatts of owned capacity comprising one of the nation's cleanest and lowest-cost power generation fleets. Because a substantial portion of Exelon's generation portfolio is comprised of nuclear generation, should climate change regulations develop in a way that does not recognize zero carbon generation from nuclear or should climate change regulation fail to come about, Exelon will not be able to capture full potential value for the generation from these zero carbon assets.

As an example, PJM and NYISO capacity markets, where Exelon owns or operates 12 of its 13 nuclear stations, include rules that administratively escalate offers intended to assure that such generators are unable to submit market offers that reflect the state clean energy program revenue, thereby increasing market prices. In New York, the policy is referred to as Buyer-Side Mitigation (BSM); in PJM it is the Minimum Offer Price Rule (MOPR). In the past, the MOPR in PJM applied only to certain new gas-fired resources, and BSM in NYISO applies only to certain resources located in downstate New York. However, in 2019, FERC expanded the scope of the MOPR, directing PJM to broadly apply the it to all new resources including, renewables, demand response, energy efficiency, storage; existing and new nuclear; and all



resources owned by vertically-integrated utilities. The MOPR has been applied to Generation's owned or jointly owned nuclear plants in Illinois and New Jersey that receive benefits under the Illinois ZES or the New Jersey ZEC program. To the extent the Illinois ZES, New Jersey ZEC program or the New York CES do not operate as expected over their full terms due to MOPR, Exelon's plants in these states could again be at heightened risk for early retirement, which would increase carbon emissions and could have a material impact on Exelon's and Generation's future financial statements.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

800,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Generation's Dresden, Byron, and Braidwood nuclear plants in Illinois are also showing increased signs of economic distress, in a market that does not currently compensate them for their unique contribution to grid resiliency and their ability to produce large amounts of energy without carbon and air pollution. The May 2018 PJM capacity auction for the 2021-2022 planning year resulted in the largest volume of nuclear capacity ever not to be selected in the auction, including all of Dresden, and portions of Byron and Braidwood. While all of LaSalle's capacity did clear in



the 2021-2022 planning year auction, Generation has become increasingly concerned about the economic viability of this plant as well in a landscape where energy market prices remain depressed and energy market rules remain fatally flawed. On August 27, 2020, Generation announced that it intends to permanently cease generation operations at Byron in September 2021 and at Dresden in November 2021. The current NRC licenses for Byron Units 1 and 2 expire in 2044 and 2046, respectively, and the licenses for Dresden Units 2 and 3 expire in 2029 and 2031, respectively. As a result of the decision to early retire Byron and Dresden, Exelon and Generation recognized certain one-time charges for the year ended December 31, 2020 related to materials and supplies inventory reserve adjustments, employee-related costs, including severance benefit costs further discussed below, and construction work-in-progress impairments, among other items. In addition, as a result of the decisions to early retire Byron and Dresden, there are ongoing annual financial impacts stemming from shortening the expected economic useful lives of these nuclear plants primarily related to accelerated depreciation of plant assets (including and accounts receivable conversion), accelerated amortization of nuclear fuel, and changes in asset retirement obligations accretion expense associated with the changes in decommissioning timing and cost assumptions to reflect an earlier retirement date. In 2020, these associated costs total \$880 million as detailed in our 10-K filing (p 270).

Cost of response to risk

0

Description of response and explanation of cost calculation

Factors that affect the economic value of Generation's nuclear plants include, but are not limited to: market power prices, results of capacity auctions, potential legislative and regulatory mechanisms to ensure nuclear plant generation is fairly compensated for its carbon-free attribute, and the efforts of states to implement related final rules. When FERC expanded the scope of the MOPR, directing PJM to broadly apply the it to all new resources including, renewables, demand response, energy efficiency, storage; existing and new nuclear; and all resources owned by vertically-integrated utilities, FERC provided no new mechanism for accommodating state-supported resources other than the existing Fixed Resource Requirement (FRR) mechanism (under which an entire utility zone would be removed from PJM's capacity auction along with sufficient resources to support the load in such zone). Neither state has directed their utilities to opt out of the PJM capacity market through instituting an FRR program. Exelon is currently working with PJM and other stakeholders to reform the MOPR so that it is inapplicable most state-supported resources unless such state programs conditions receipt of state payments on clearing in the PJM capacity auction.

Exelon is a long-time supporter of comprehensive and effective federal GHG legislation and regulation. Exelon also supports state clean energy initiatives. Exelon maintains a regulatory advocacy group working a variety of regulatory issues as part of its regular business costs, thus there is no incremental cost for this risk mitigation specific to climate change related issues.

Comment

Exelon maintains a Regulatory Advocacy group as part of its regular business costs and do not require additional discrete costs for the management of climate-related issues.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

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

Primary potential financial impact

Increased direct costs

Company-specific description

Extreme weather conditions or damage resulting from storms could stress Exelon's utility's transmission and distribution systems, communication systems and technology, resulting in increased maintenance and capital costs and limiting each company's ability to meet peak customer demand. These extreme conditions could have detrimental effects on the Exelon utilities' results of operations, cash flows or financial positions. First and third quarter financial results, in particular, are substantially dependent on weather, and could make period comparisons less relevant.

Generation's operations are also affected by weather, which affects the demand for electricity as well as operating conditions. To the extent that weather is warmer in the summer or colder in the winter than assumed, Generation could require greater resources to meet its contractual commitments. Extreme weather conditions or storms could affect the availability of generation and its transmission, limiting Generation's ability to source or send power to where it is sold. In addition, drought-like conditions limiting water usage could impact Generation's ability to run certain generating assets at full capacity. These conditions, which cannot be accurately predicted, could have an adverse effect by causing Generation to seek additional capacity at a time when wholesale markets are tight or to seek to sell excess capacity at a time when markets are

weak.

Climate change projections suggest increases to summer temperature and humidity trends, as well as more erratic precipitation and storm patterns over the long-term in the areas where Exelon has generation, transmission, and distribution assets. The frequency in which weather conditions emerge outside the current expected climate norms could contribute to weather-related impacts discussed above. Examples of severe weather events that have caused significant damage to Exelon's utilities' systems in recent years include Hurricane Sandy and the 2012 Derecho on the east coast, and unnamed tornados and ice storms crossing ComEd's region. Summer storms (including unnamed Derecho's) in 2020 were also particularly damaging in both the ComEd and PECO territories, and extreme cold temperatures in Texas caused damage to our generation assets in February 2021.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

0

Potential financial impact figure – maximum (currency)

100,000,000

Explanation of financial impact figure



Storm recovery costs are planned for in each of our utilities annual operating budgets, but costs can vary year to year by no change to upwards of 100 million dollars depending on the significance of storm events. In the summer of 2020, there were powerful thunderstorms that brought high sustained winds, inland flooding and lightening damage that interrupted electric delivery to customers in ComEd and PECO's service territories. Restoration efforts included significant costs for employee overtime, support from other utilities, and contracted tree trimming crews, which result in incremental O&M expense and capital expenditures. While ComEd was able to regulatory recover much of their storm damage costs, PECO saw storm cost increases of 89 million dollars in 2020. While Pepco saw a decrease in typical storm costs of \$2 million, DPL and ACE were more mildly impacted by the 2020 summer storms and saw an increase in storm costs of 19 and 3 million in 2020 respectively. The potential financial impact figure range that is shown is reflective of the typical variation in storm recovery costs , although this variability may not be entirely attributable to climate change.

Cost of response to risk

66,000,000

Description of response and explanation of cost calculation

Exelon periodically perform analyses to better understand how climate change could affect its facilities and operations. Exelon primarily operates in the Midwest and East Coast of the United States, areas that historically have been prone to various types of severe weather events, such that we have well-developed response and recovery programs based on these historical events. Exelon has an Emergency Response Organization in place to prepare for and respond to weather emergencies. Exelon also has a weather forecasting function that helps to alert our business units and plants of impending storms so that they can prepare accordingly. If a weather event impacts the stability of the electric grid, we also have procedures and programs in place to shed or reduce load. We also implement enhanced visual inspections of critical system infrastructure in extreme heat or cold conditions, and proactively prepare for seasonal extremes through readiness reviews, flood risk analysis and ongoing vegetation management. Exelon's utilities have also installed more than 10 million smart electric and gas meters and are using these technologies to avoid outages and speed recovery through early identification of outage location and specifics, as well as identifying equipment that is experiencing issues such that outages can be averted. We also work with our local communities to develop cost effective and appropriate resilience efforts and have demonstration projects within each of our utility service territories, ranging from LED smart streetlight conversions to resiliency hubs and complete microgrids. One example of partnering with our community on building resiliency is the District of Columbia Powerline Undergrounding (DC PLUG) initiative, for which the second Biennial Plan was approved in 2020, aims to reduce storm damage from vulnerable overhead lines by placing select feeders underground. Benefits go beyond resilience, including local economic stimulus and job creation. More broadly, Exelon invested \$6.6 billion across its regulated utilities in 2020 which includes many actions that address the physical risks from climate change, like storm-hardening and integration of new technologies such as smart meters and smart grid



technology which supports resiliency and storm recovery. If 1% of the annual spend specifically related to resiliency/storm-hardening, this would equal \$66 million dollars, which is the value that has been shown above.

Comment

See Exelon's 2020 10-K for further details.

Identifier

Risk 3

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

Decreased revenues due to reduced demand for products and services

Company-specific description

Exelon is potentially affected by emerging technologies that could affect or transform the energy industry, and potential impacts could create different impacts for each of Exelon's businesses. Some of these technologies include, but are not limited to, further development or applications of technologies related to shale gas production, renewable energy technologies, energy efficiency, distributed generation and energy storage devices. Such developments could affect the price of energy, levels of customer-owned generation, customer expectations and current business models and could make portions of our electric system power supply and transmission and/or distribution facilities obsolete prior to the end of their useful lives. Such technologies could also result in further declines in commodity prices or demand for delivered energy. Each of these factors could affect Exelon's consolidated financial statements through, among other things, reduced operating revenues, increased operating and maintenance expenses, increased capital expenditures, and potential asset impairment charges or accelerated depreciation and decommissioning expenses over shortened remaining asset useful lives (see 10-K page 32). Impacts will depend on the type of technology and the time period over which it becomes a factor in the market. One specific example is the technological advances in shale



gas extraction that have led to a significant decrease in natural gas prices, which directly affects power prices. Another example is the decreasing costs of renewable generation technologies and of battery costs, each of which have the potential to challenge current power market structures and overall grid design and performance in areas where Exelon plants bid the electric generation they produce.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Exelon's financial performance can be materially affected by energy prices and changes in customer demand through the reduction of operating revenues, increased O&M expenses, and increased capital expenditures. Climate change issues, among other things, may play a role in these market uncertainty risk drivers although it is often difficult to identify the incremental risk that can be directly attributed to climate change. Mark to market gains is one indicator of how Exelon Generation is managing the market risks of commodity price fluctuations by entering into economic hedges. Mark-to-market performance on this hedging activities swing annually and while we had gains of \$295 million in 2020, we saw losses of \$215 million in 2019 (10-K page 85). Revenues were also impacted by lower realized energy prices in nearly all of the regions



that we operate, which can be attributed in part to changing technology costs and availability. Only a portion of this market fluctuation can be directly attributed to climate change emerging technology influences, limiting our ability to report a discrete value associated with climate change for this survey.

Cost of response to risk

0

Description of response and explanation of cost calculation

Exelon is continually analyzing market conditions, regulatory developments, and new technologies in order to best position itself. Exelon maintains a Corporate Strategy organization that analyzes market trends, key risk indicators, and anticipated developments in the market to retain its role as an industry leader. This includes coordination of cross-company analysis on emerging technologies that may be associated with climate change action, potential risks associated with various future scenarios and identification of key signposts that might indicate changes in market signals, which can help influence and inform other areas of the company. Exelon also maintains a Markets Fundamentals organization that uses internal and external market information, tools, and approaches to inform the organization of potential business performance under a variety of scenarios, including those impacted by carbon regulation or a price on carbon. Generation's competitive businesses create value for customers by providing innovative energy solutions and reliable, clean, and affordable energy. Generation's customer-facing activities foster development and delivery of other innovative energy-related products and services for its customers. Generation operates in well-developed energy markets and its generation fleet, including its nuclear plants, which consistently operate at high capacity factors, provide geographic and supply source diversity to help mitigate challenges. Exelon's Corporate Strategy and Market Fundamentals organizations are an integrated element of the business and do not require additional discrete costs for the management of climate-related issues.

Comment

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Reputation

Increased stakeholder concern or negative stakeholder feedback

Primary potential financial impact

Decreased access to capital

Company-specific description

As the largest generator of zero-carbon electricity in the nation, Exelon's reputation is in part defined by its leadership on the issue of climate change action and the transition to a clean energy future. In addition, Exelon has set and achieved several internal reduction goals, including our first commitment with the United States Environmental Protection Agency (EPA) Climate Leaders program in 2008 resulting in a 36% reduction in our own emissions, and our early achievement of our Exelon 2020 goal with over 18 million metric tons of GHG abatement in a single year, Exelon has worked to show that GHG reductions can be achieved in an economically efficient manner by looking across the energy value chain and valuing all low carbon technologies equally. Nevertheless, because of Exelon's already very clean fleet, Exelon is not always perceived as achieving additional incremental reductions. In addition, given our operation in regional electric markets, our actions often decrease overall grid emissions reductions, that are not always attributed to Exelon. While we make every effort to present the idea of GHG grid displacement or avoided emissions from clean generation already on the grid, challenges in communicating our ongoing efforts in this area poses a risk to our reputation.

Time horizon

Short-term

Likelihood

Unlikely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range



Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

0

Potential financial impact figure – maximum (currency)

412,000,000

Explanation of financial impact figure

The economic value of reputation is difficult to quantify with precision. However, we do understand that adverse impacts to reputation can impact a broad range of variables that do have financial metrics, such as: stock price, cost of capital, relationships with regulatory authorities, customer satisfaction, as well as employee recruitment and retention. According to the World Economic Forum, 25% of a company's market value is directly related to its reputation. While no specific value can be realistically assigned for Exelon, reputation is an important source of value to investors and encapsulates the value of intangible elements of a company's internal corporate governance and the quality of its management; both of which can be very important assets during times of uncertainty. Exelon's market value for 2020 was 41.18 billion dollars over the course of 2020, if up to 1% of that annual market value could be impacted by climate change-related reputation, the potential financial impact could range from 0 to 415 million dollars. This is the estimated value range is shown as the potential financial impact for perspective of scope and scale only.

Cost of response to risk

50,000

Description of response and explanation of cost calculation

Our two primary businesses — Exelon Utilities (regulated electric and natural gas utilities) and Exelon Generation (merchant electricity generation) — have already been reducing emissions and positioning themselves for success in a low carbon economy. We have a strong climate change strategy, work with a variety of stakeholders on this topic on a regular basis, and actively advocate for climate change policy at the state and federal level. We successfully completed our two prior GHG emission reduction goals under the U.S. Environmental Protection Agency (EPA) Climate Leaders and Exelon 2020 programs. We are currently pursuing an internal GHG emission reduction goal to reduce operations-driven emissions by 15 percent from 2015 levels by 2022, as we also continue to expand our efforts to support our customers and communities in their carbon reduction efforts. On the utility side of our business, we focus on minimizing emissions from utility operations and



educating customers on efficient energy use. For our generation company, we work toward retiring higher emitting sources, while also increasing our zero-carbon generation and encouraging customers to specify cleaner generation in their electricity purchases. Through the combined efforts of all our companies, we reduced, displaced or avoided nearly 100 million metric tons of U.S. electric sector emission each year from 2005 through 2020. As an added means of showing credibility in our GHG management program, Exelon third-party verifies its GHG emissions inventory annually. Exelon has also begun to third-party verify Supplier Specific emissions factors for its Constellation New Energy electricity retail organization in support of advancing GHG accounting with its customers. Exelon's GHG management program is integrated into each business, and thus foundational to our providing economical, clean and low carbon electricity supply options for our customers. In 2020, Exelon spent approximately \$50,000 for the verification of its GHG inventory, which is the cost of response as shown. Exelon also prepares a broader Corporate Sustainability Report designed to convey our corporate sustainability strategy and outcomes, including, GHG mitigation and climate change action.

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

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Exelon's generation portfolio has an already very low GHG emissions intensity. Our emissions rate of 94 lbs/MWh in 2020 was about 90 percent lower than the national average emissions rate. Approximately 89% of our output is produced from zero-carbon nuclear resources and renewables. We continue to support federal policy that places a value on carbon emissions as the most efficient solution for reducing GHG emissions, and other potential Federal energy policies to reduce GHG emissions, such as a Clean Energy Standard, would impact our business. Exelon's sustainability programs focus on identifying opportunities to grow the business without increasing risks associated with carbon emissions. These include investing in new technologies such as Proterra electric buses and XL, the leader in connected fleet electrification solutions for commercial and municipal fleets; as well as partnering in the piloting of new technologies such as the 50-MW NetPower plant to demonstrate supercritical carbon dioxide (CO₂) cycle technology that offers higher density and competitive thermal efficiencies versus conventional steam- and turbine-driven power generation technologies without producing atmospheric emissions. Exelon Generation has also worked to maximize the output of its existing nuclear fleet by instilling a corporate philosophy around operational excellence and continuous improvement.

Time horizon

Medium-term

Likelihood

More likely than 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)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

During 2020 Exelon generated over 156 million MWh of nuclear generation and nearly 5 million MWh of renewable generation. In 2020, the Exelon operated nuclear fleet achieved a capacity factor of 95.4 percent, the second highest in Exelon history and the fifth year in a row that we have exceeded a 94 percent capacity factor. Our utility-scale wind and solar energy capture rate was 93.4 percent. The Exelon Generation wind fleet in 2020 included 746 MW of utility-scale wind turbines operating in 10 states and 613 MW of commercial- and utility-scale solar across 11 states and the District of Columbia. Additional market price for carbon potentially represents additional revenues. The potential financial impact would ultimately depend upon the level of the carbon price that was enacted, the extent to which it applied to the energy sector, impacts on energy and capacity prices, and other factors. Policies that values all zero-carbon technologies equally (i.e. not favoring renewables over nuclear), would greatly impact both the success of the GHG emissions reductions, as well as the potential financial impact to Exelon's generation fleet.

Cost to realize opportunity

1,800,000,000

Strategy to realize opportunity and explanation of cost calculation

Exelon continues to support development of a long-term national energy policy that places a price on carbon (utilizing market-based implementation and compliance mechanisms) to incentivize market-driven investments in lower carbon technologies. In the interim, we are working with states to serve as incubators for innovative policies to address complex economic and energy challenges. For example, Exelon actively participated in, and supported, the recent updates to the Regional Greenhouse Gas Initiative (RGGI) program where states agreed to

further reduce CO2 emission budgets over time. Our zero-carbon energy fleet in this region (Nine Mile Point, Ginna and Fitzpatrick nuclear plants in NY; and Calvert Cliffs nuclear plant and Four Mile, Fairwind and Criterion wind farms in MD) helps ensure these reductions occur affordably and reliability. Exelon has also continued to support implementation of zero-emission credit (ZEC) programs in NJ, NY and IL. In the absence of federal action, these ZEC programs help to compensate nuclear power plants for the 24 hour/7 day a week zero-emission attributes that they currently provide. Between 2015 to 2022, Exelon's nuclear fleet will avoid an estimated 650 million metric tons of GHG emissions, equivalent to removing one half of US cars from the roads for a year. Exelon maintains a Regulatory Advocacy group as part of its regular business costs that also supports climate change-related advocacy. We also engage with stakeholder groups including the Bipartisan Policy Center, the Center for Climate & Energy Solutions (C2ES) and the MIT Global Change Forum to help advance policy development. Exelon is also continually optimizing its low carbon generation. Since 2008, Exelon Generation has placed into service projects representing 562MWs of new nuclear (uprates at existing plants) and worked to maintain a leading capacity factor performance for its nuclear plants. In 2020, Exelon invested approximately \$1,800 million in capital (including nuclear fuel) in 2020 to support its generation fleet. This is shown as the cost to realize this opportunity.

Comment

No Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased value of fixed assets

Company-specific description

The market for electric vehicles (EVs) has grown significantly and EV adoption will impact the future energy landscape and the evolving grid. Exelon has a unique opportunity to support customer demand for transport electrification through our EV business model that leverages our exiting utility relationships to increase EV adoption. Increased use of electricity for transportation would increase demand for electricity, increasing the demand for power generation from our generating assets, as well as delivery services from our utilities. Also, since Exelon is a low carbon generation company, to the extent that this effort is done as a means of reducing GHG emissions, it could also more specifically increase demand for our low carbon generation portfolio. Examples of our involvement in EVs to lower community GHG emissions while increasing use of electricity include our investments in Proterra electric Buses and XL, the leader in connected fleet electrification solutions for commercial and municipal fleets. A few additional examples of specific utility actions in 2020 include BGE's EVsmart initiative launched on July 1, 2019 under a program approved by the Maryland Public Service Commission (PSC), which has authorized BGE to install up to 500 charging stations throughout the BGE service territory. At the end of 2020, BGE had over 77 charging stations in operation. BGE expects to have all 500 chargers installed by the end of 2021. PHI's Maryland EVsmart program also commenced July 1, 2019. It features a comprehensive portfolio of sub-programs across the Pepco and Delmarva service territory, including rebates for 1,000 residential chargers, bringing 250 chargers to multi-family units and deploying 350 utility-owned public chargers. In addition, PHI will be installing 137 Smart Chargers in a residential application and managing the output during capacity events. In D.C., Pepco will provide "make-ready" infrastructure to support public, taxi, rideshare and bus charging. Delmarva Delaware's EVsmart program will involve installing, owning and operating four chargers located in primary transportation corridors and neighborhoods.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

4,600,000

Potential financial impact figure – maximum (currency)

5,300,000

Explanation of financial impact figure

Exelon invested almost \$6.6 billion across our regulated utilities in 2020 for grid advancements in reliability and resiliency, including integration of electric vehicle (EV) charging technologies or improving the systems to meet this new growth in demand. Our utilities are enabling transportation electrification by investing in two key areas: 1) distribution system investments that support customer demand for EVs, and 2) charging infrastructure investments through utility ownership, incentives or rebates with cost recovery and return opportunities. If 1 percent of that investment were considered to support EV expansion programs associated with climate change, either directly or indirectly, and assuming a range in the rate of return between 7 and 8 percent, this could result in an increase in rate base of 4.6 to 5.3 million dollars. Exact investment in grid advancement directly or indirectly relating specifically to EV programs resulting from climate change is not currently broken out in Exelon public disclosures.

Cost to realize opportunity

66,000,000

Strategy to realize opportunity and explanation of cost calculation

Exelon has a series of internal groups to foster and manage the business activities to drive electric vehicle (EV) adoption in the regions we operate. Over the past year, the TechEXChange and the Exelorate Growth Board have continued to explore ways to encourage adoption of EVs of all types across the enterprise to reduce overall carbon emissions. Potential areas of investment include enabling technology and infrastructure to support larger numbers of EVs, educating consumers and our workforce about the benefits of EV ownership and partnering with industry associations. In 2020, Exelon also announced that our six utilities will take major steps to electrify our fleet, setting a goal to electrify 30 percent of our vehicle fleet by 2025, increasing to 50 percent by 2030. This transition will be achieved through a combination of fully electric vehicles, vehicles with plug-in idle mitigation units and plug-in hybrids. This initiative covers a combined fleet of more than 7,200 vehicles, and will provide valuable insights into how we can better support our communities in their desire to electrify transportation. On the competitive side of the business, Constellation Technology Ventures is investing in charging infrastructure through ChargePoint and in transformative vehicle



technology through ProTerra and XL Hybrids. On the regulated utility side of the business, our utilities are enabling transportation electrification by investing in two key areas through their EVSmart programs: 1) the distribution system investments that support customer demand for EVs, and 2) charging infrastructure investments as a result of utility ownership, incentives or rebates with cost recovery and return opportunities. Exelon's utilities' invested almost \$6.6 billion across our regulated utilities in 2020 for grid advancements in reliability and resiliency, including integration of EV charging technologies or improving the systems to meet this new growth in demand. If 1 percent of that investment were considered in support of EV expansion relating to climate change, either directly or indirectly, this would estimate a cost of 66,000,000 dollars of investment in 2020 for realizing this opportunity.

Comment

No Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of new technologies

Primary potential financial impact

Increased value of fixed assets

Company-specific description

Due to the structure of our industry, Exelon's utilities are generally unable to directly invest in and own power generation resources. However, our utilities use other means to enable renewable energy investment and deployment in our service territories by third parties. For example, we are deploying smart meter technology to integrate local generation and making other physical grid improvements. Through net metering, utilities

purchase excess electricity produced from residential and commercial customers' renewable energy equipment. In 2020, ComEd's total program included 20,187 customers providing more than 463 MW of renewable generation, while PECO had 11,764 customers with over 127 MW in renewable resources. BGE had 34,952 customers with almost 373 MW of installed generation capacity. Similar to BGE, PHI also credits its customers for their net energy use. In 2020, PHI's total program included 83,524 customers who supplied almost 1,032 MW of renewable generation. In total, at the end of 2020, Exelon utilities had 150,427 customers with 1,995 MW of renewable energy generation resources installed, primarily solar photovoltaic systems, with a limited amount of wind and other resources.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

4,600,000

Potential financial impact figure – maximum (currency)

5,300,000

Explanation of financial impact figure

Exelon's utilities have worked over the last several years to develop common approaches and platforms to assist and enable customers and contractors to deploy residential and commercial renewable energy, primarily solar photovoltaics, in our utility service areas. Each utility's Green Power Connection website has resources to assist customers from start to finish on their renewable energy projects. Digital Solar Toolkits are a

flagship resource from our Green Power Connect programs. The toolkits offer solar calculators to help customers evaluate their options and other tools and tips to assist in decision making. For customers deciding to install solar, the toolkits help them to select qualified solar contractors, monitor project progress and track energy usage, consumption and savings. Exelon invested almost \$6.6 billion across our regulated utilities in 2020 for grid advancements in reliability and resiliency, including integration of distributed generation resource technologies or improving the systems to meet this new type of supply. If 1 percent of that investment were considered to support distributed generation programs relating to climate change either directly or indirectly, and assuming a range in the rate of return between 7 and 8 percent, this could result in an increase in rate base of 4.6 to 5.3 million dollars as shown for an example of the range of potential financial impact. Exact investment in grid advancement directly or indirectly relating specifically to distributed generation programs is not currently broken out in Exelon public disclosures.

Cost to realize opportunity

66,000,000

Strategy to realize opportunity and explanation of cost calculation

A specific example of a distributed generation initiative is Exelon's utility PECO partnership with the Philadelphia Energy Authority (PEA) to launch Solarize Philly. This program was designed to make the process of installing solar as easy and affordable as possible, while also supporting solar training at the school district of Philadelphia and improving access to clean energy for all neighborhoods. PEA carefully selected high quality installers and equipment and negotiated discounted prices and important consumer protections to help Philadelphia grow its solar market. Our partnership with the City of Philadelphia for the Solarize Philly initiative has been very successful in facilitating the installation of rooftop solar in the city and in providing education and job training. PEA delivered introductory solar training to 18 students during summer 2020. Solarize Philly is one of the largest single solarize initiative in the country with 2,500 households signing up for a free solar assessment and 750 households signing solar contracts at a discount, and 98 new jobs created through 2020. From the Exelon perspective, increased interest in distributed generation presents an opportunity to support our communities in their interests and ensure it can be done with reliability in mind. Therefore, we similarly invest in upgrades to our system to support these efforts. Exelon's regulated utilities invested almost \$6.6 billion in 2019 for grid advancements in reliability and resiliency, including integration of distributed solar enabling technologies or improving the systems to meet this new distributed supply. If 1 percent of that investment were considered in support of expansion in distributed resources in relation to climate change action, either directly or indirectly, this would estimate a cost of \$66 million of investment in 2020 for realizing this opportunity.

Comment

No Comment

C3. Business Strategy

C3.1

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

Yes

C3.1b

(C3.1b) Does your organization intend to publish a low-carbon transition plan in the next two years?

	Intention to publish a low-carbon transition plan	Intention to include the transition plan as a scheduled resolution item at Annual General Meetings (AGMs)	Comment
Row 1	Yes, in the next two years	No, we do not intend to include it as a scheduled AGM resolution item	Exelon is in the process of separating into two distinct entities, subject to regulatory approval. Both the regulated utility business and the competitive business of electric generation and retail have a long-standing history of being focused on clean, reliable and affordable energy. Following the separation of the company, each of the new companies will adapt new strategies around climate change, GHG emissions reductions and their roles in a decarbonized future - or their low carbon transition plan. Our transition plan is not currently a scheduled resolution item at any Annual General Meetings.

C3.2

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

Yes, qualitative and quantitative

C3.2a

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

Climate-related scenarios and models applied	Details
DDPP	<p>Because Exelon is a low carbon energy company focused on providing low carbon energy solutions to its customers and communities, we have begun to use climate-related scenarios in our business planning. Building on our initial analysis in 2017 which used the Science-based Targets Initiatives (SbTI) Sector Decarbonization Model, using the IEA Energy Technology Perspectives (2014) 2-degree scenario work, in 2018/19 Exelon expanded its effort to commence an analysis based on the US Deep Decarbonization Pathway Project (USDDPP). We chose this analysis because it is a U.S. study across the whole economy and takes into account all energy use by all sectors. The U.S.DDPP shows several possible energy system transitions that could lead to the US reaching an 80% reduction in GHG emissions by 2050, and included an analysis of what actions and types of fuel switching might need to occur in each sector to reach this goal. Exelon considered potential implications of such dramatic changes across all sectors to its current business profile to better understand how its various business elements might be affected. Exelon's analysis focused on the general trends (scope and scale) of the transition pathways.</p> <p>One conclusion to this analysis to date, is that there are many different pathways to achieve the necessary emission reductions. All pathways require broad suites of actions and consideration of the relative trade-offs and implications that arise with the use of different technologies or approaches. Across all potential solution pathways, we see the following common elements: Deep decarbonization is possible by 2050 only with efficient electrification backed by zero-carbon electric generation; Significant action is needed throughout the economy immediately, with sustained progress through mid-century; All current commercially viable supply and demand mitigation options need to be deployed and potential future options need to be developed; Routine equipment replacement cycles are key opportunities for taking advantage of available new technologies at lower cost, and coordinated approaches that recognize these opportunities are needed to drive investment for this transition; the cost of inaction on climate change far exceeds the cost of action; while the need to act is urgent, there are trade-offs to all solutions that must be carefully weighed in making decisions on the scale required to transition the economy; and timely, meaningful and effective policy measures are an imperative. In 2020, Exelon has also been examining the additional measures that would be needed for Carbon Neutral, and participated in the EPRI Innovation 2050 analysis, which explored similar decarbonization pathways using different models and</p>

	<p>inputs from a variety of U.S. industries.</p> <p>All of these findings reinforce Exelon's engagement in identifying and pursuing electrification opportunities for customers as part of its median and long-term business strategy through its TechEXChange, R&D Investments, and Constellation Technology Ventures (CTV) investments. It also spurs our Constellation groups focus on its distributed renewable generation program for customers and new environmental attribute products (RECs and EFECs) that support success of zero-carbon renewables and nuclear on the grid. This analysis also made it clear that the avoided emissions from our nuclear generation are a critical part of a successful 2-degree solution; this has informed and supported our short-term business strategy by increasing the importance of legislation and/or market reform that can prevent pre-mature retirement of nuclear units. As one example of our work to promote a sensible national approach to mitigating climate change, in 2020, Exelon continued to support the Climate Leadership Council (CLC) as a founding member. The objective of the CLC is to implement a national carbon dividend system to meaningfully reduce nationwide emissions while protecting the most vulnerable citizens.</p>
RCP 8.5	<p>Exelon has also looked at the physical climate change data available from the RCP8.5 high emissions scenario. We selected this scenario for physical climate change conditions because it is the trend that the globe is currently on, and because the physical changes noted for our region are similar through 2050 for this and the lower emission scenarios. From the review, we recognized that the larger divergence in the physical changes occurs after the 2050 time period depending on whether emissions are reduced in the near term. Over the course of 2020, Exelon initiated an engineering standards review and material condition assessment process focusing on key asset categories to further its efforts to incorporate temperature, precipitation and storm frequency and intensity trends more directly in its business planning and risk assessment procedures. This analysis has re-enforced our corporate commitment to participate in the U.S. Department of Energy (DOE) Partnership for Electric Sector Climate Resilience (the Partnership), and increased our engagement efforts such that our utilities are working with states to support policies focused on enhanced reliability and resilience. Exelon also supports the development of industry and regulatory guidance on best practices for resilience-based design standards and planning criteria through its participation with industry organizations such as EEI and EPRI. We are also working with the National Oceanic and Atmospheric Administration (NOAA) and others to improve the accessibility of our industry pertinent data, and to better capture the specific elements of climate change projections that relate to our planning processes, recognizing that climate change may affect different parts of our business in different ways. We continue to explore opportunities to increase climate change training and communication efforts, increase climate change awareness in planning and improve coordination with local organizations working on climate adaptation and resilience plans.</p>

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	<p>High Impact. Our customers' expectations have changed in part because of the issue of climate change. Customers seek greater control over energy efficiency, active management of home energy usage and deploying local generation in homes and businesses. As a result, Exelon is implementing a vision of a connected communities to drive our utilities' evolution into the next generation energy company. This model seeks to: modernize for reliability, promote system resilience and security, support customer choice, integrate distributed energy into the grid and promote the use of clean energy. As part of our investment, Exelon has installed nearly 9 million electric smart meters and over 1.3 million advanced gas meters. Meter technology enables faster outage restoration, with shorter outages when they do occur, and reduced service interruption frequency. They also enable innovative demand response programs and allow for remote connect and disconnect. In 2020, this technology allowed Exelon's utilities to avoid over 410,000 truck trips, reducing costs and avoiding transportation GHG emissions. Through a combination of new and prior-year investments, our Exelon utilities also helped customers save over 22.3 million MWh of energy through our award-winning customer energy efficiency programs in 2020, equating to almost 8.1 million metric tons of CO₂e emissions avoided. Exelon's utilities have also developed Green Power Connection, common approaches and platforms to assist and enable customers and contractors to deploy residential and commercial renewable energy, primarily solar photovoltaics, in our utility service areas. At year-end, Exelon utilities had a total of 150,427 customers with 1,995 MW of renewable energy generation resources installed. Constellation is Exelon's competitive wholesale and retail business. Competitive markets drive choice, innovation, savings and environmental sustainability. Constellation's integrated energy solutions are designed to empower customers in how they buy, manage and use their energy. For example, Constellation's CORE product allows commercial and institutional customers to leverage Constellation's size, scale, scope and expertise to receive tailored solutions that can involve physical on-site renewable energy</p>

		and/or renewable energy sourced from market. CORe is currently supporting 18 corporate and public sector customers.
Supply chain and/or value chain	Yes	<p>Moderate Impact. Exelon recognizes the climate change related risks that could disrupt our supply chain as a result of physical climate change impacts or a transition to a lower carbon economy which could affect pricing and availability. This has influenced our strategy for the short and mid-term time periods by increasing our focus on relationship building with our suppliers. Exelon works with approximately 8,000 suppliers to procure a wide range of materials and services that support our company operations. We actively engage, evaluate and monitor our suppliers to better understand our supply chain and proactively identify and address potential business continuity or related risks. In addition to managing our supply chain from a risk and performance perspective, we also work to align Exelon's sourcing practices with company objectives in environmental responsibility, supplier diversity and local economic development. In December 2020, Exelon conducted its semi-annual detailed risk assessment that identified 93 critical Tier 1 suppliers representing 51 percent of total spend. These risk assessments include a review of the Supplier's Business Continuity Plan which would cover potential disruption from natural events that may be increasing as a result of climate change. As an industry leader in sustainability, we make a concerted effort to minimize potential impacts of the goods and services we procure and to motivate our suppliers to improve their operational performance. We advance sustainability in our supply chain through both our direct relationships with our suppliers and our engagement with the Electric Utility Industry Sustainable Supply Chain Alliance (EUISSCA), an organization of utilities and suppliers working together to advance sustainability best practices in utility supply chain activities and supplier networks. Exelon continues to pursue progress against the Alliance's sustainability maturity model by creating more rigor around the scoring of sustainability aspects of supplier proposals in bids and by recognizing top suppliers with awards related to their environmental performance. Exelon continues to recommend supplier participation in the Alliance and the EUISSCA Supplier Affiliate Membership program.</p>
Investment in R&D	Yes	<p>High Impact. Rapidly advancing technology is transforming every component of our business, from our generation fleet operations to our transmission and distribution system (T&D) and our customer-facing engagements. Low carbon grid technologies are growing and achieving scale, particularly battery storage technology. Piloting and leveraging new technologies enable the delivery of lower cost, higher</p>

		<p>value and cleaner services. This has influenced our strategy over the short and mid-term by focusing our activities on emerging technologies that support GHG emissions reductions and grid resiliency. Over the past few years, Exelon has created an ecosystem to foster innovation and manage all phases of emerging technologies. These include: TechEXChange which explores new technologies; Partnership R&D program which works with universities; and Exelorate Efficiency which drives operational efficiency. Constellation Technology Ventures (CTV) invests in emerging technologies such as electric vehicles and buses, EV charging, energy efficiency, residential solar, renewable energy and other beneficial technologies. In 2019, the Exelon Foundation and Exelon established the 2c2i initiative to drive entrepreneurial investment in new technologies in Exelon's service areas that have a climate change benefit and in 2020, we welcomed our first 10 start-ups who are all working to establish impact projects using their new technologies within our service territories, and initiated the second round of investment selection. Also, Exelon utilities have worked to enable distributed renewable energy through their Green Power Connection programs, to enable energy efficiency through their Smart Usage Rewards programs, and to enable electric vehicles through public charger installations.</p>
Operations	Yes	<p>High Impact. Exelon recognizes the risk to our operations both from physical climate change that may affect our assets, as well as the need to minimize carbon emissions resulting from our assets or in association with our electric delivery services. This has influenced our strategy on the short-and mid-terms looking at our day to day operations and near-term infrastructure planning, but also for the long-term as we make system investments with life spans well into the future. Operational excellence at our power generation facilities and across our transmission and distribution systems is focused on producing and delivering energy as efficiently as possible, resulting in more affordable energy and lower greenhouse gas emissions per unit of energy produced and delivered. Exelon also strives for operational excellence in maintaining a highly reliable electric and gas distribution system, with an increasing focus on resiliency in response to the effects of climate change on the natural environment, including increased weather extremes and sea level rise.</p> <p>These processes also consider how the grid may need to respond to changes in energy demand caused by both the physical effects of climate change as well as policy responses to climate change. In 2020, 89 percent of the electric output from Exelon owned power generation was from zero-carbon nuclear or renewable energy, enabled by industry-leading nuclear capacity factors. Our capacity factors</p>

		<p>averaged over 94 percent for the last five years, avoided over 80 million metric tons of GHG emissions each year. Exelon's capital investments focusing on our utilities relate to opportunities to improve the reliability and resilience of our systems, including against the physical effects of climate change. Our investments focus on making the grid work for our customers by enabling two-way power flows, distributed renewable energy resource integration and advanced smart meter technology. Exelon spent \$6.6 billion in 2020 and plans to spend \$27 billion between 2021 and 2024 across our utilities to support our efforts to create a smarter power grid vision, including investments in resilience. Exelon is currently updating its views on business transition risk management and business adaptation risk management related to climate change and our future investment strategies.</p>
--	--	--

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	<p>As a result of increased customer interest in climate change action and our communities' growing focus on GHG emissions reduction and climate resiliency, and insights gained from our climate scenario work, Exelon has been developing and implementing a strategy for its utilities and making and planning its capital investments to support the execution of this plan. Our utilities' strategy is one that harnesses the power of digital communication, remote sensing, distributed and artificial intelligence, distributed energy resources (DER) and the platform of smart infrastructure to reinforce human connections and serve a hierarchy of community needs ranging from the traditional basic T&D services to new uses for utility systems enabled by technology. Our plan requires investment and focus in four key connected community areas: (1) reliability and safety, (2) resilience and security, (3) increased consumer choice and increased access to DER, and (4) decarbonization and beneficial electrification in residential, business, transportation and other opportunity areas. As we work toward our vision, we are collaborating with stakeholders and policymakers on regulatory matters to achieve the benefits of this vision. Over the next decade, we will move toward achieving similar outcomes for all of our customers and communities, but with tailored utility-by-utility implementation based on local and state circumstances.</p> <p>As we learn from our work and partner with stakeholders to better understand value creation in their communities, we will</p>

	<p>develop more complex and sophisticated program demonstrations. We have created a peer group resource to share best practices and other information among our utility companies. Examples in each of our utilities include:</p> <p>BGE signed a Memorandum of Understanding with the City of Annapolis as BGE's First Connected Community. Potential projects include smart streetlights, resiliency hubs at public housing sites, smart kiosks, EV smart chargers, smart sensors, and access to community solar and energy efficiency programs. These investments address Annapolis' specific public service priorities and facilitate learning to support further development and adoption of connected technologies.</p> <p>ComEd is working with the Bronzeville community on Chicago's near south side which includes a mix of homes, small and large businesses, churches, schools and critical facilities such as hospitals and the Chicago Police Department headquarters. Anchoring this Connected Community is a seven MW microgrid funded in part by the Department of Energy (DOE). A community energy portal shares energy efficiency savings, smart kiosks, off-grid renewable outdoor lighting and traffic, moisture and air quality sensing with interested viewers. For more information, visit https://bronzevillecommunityofthefuture.com/</p> <p>PECO is partnering with the Philadelphia Industrial Development Corporation (PIDC) to develop a Connected Community Master Plan for the Philadelphia Navy Yard. The Navy Yard is considered the most successful redevelopment of a former military facility in the country with 170 businesses and over 14,000 people employed at the location. A number of Connected Community initiatives that are underway include electric vehicle (EV) charging stations, a 425 KW community solar installation, implementation of PECO Smart Ideas energy efficiency program incentives, a building microgrid at Penn State university buildings and installation of a 6 MW battery storage project. The Master Plan will continue evaluating and recommending projects related to reliability, distributed energy integration, street lighting, EV transportation, cybersecurity and other opportunities.</p> <p>Delmarva Power partnered with the City of Wilmington, Delaware on Wilmington 2028, a plan that envisions creating a "brighter, safer, cleaner and technologically-advanced city." The work integrates community development opportunities, expands partnerships and uses smart city technology to create a safer, smarter, more sustainable and more connected community. The initial project with Delmarva Power focuses on LED smart streetlight conversions, smart sensor technologies and electrification opportunities. Phase One of Connect Wilmington included a pilot LED Streetlight conversion of 250 streetlights. Within the demonstration area Delmarva Power worked with the City of Wilmington to showcase three smart city sensors: traffic monitoring, gunshot detection and air quality monitoring sensors to understand priority issues for the city. In the future, Delmarva Power will expand work in the city to include expansion of the LED streetlight conversion, an indoor agriculture pilot, implementation of an electric bus and additional smart sensor and smart cities technologies. Learn</p>
--	---

	<p>more about the effort at our website.</p> <p>Pepco and Jubilee Housing, along with New Partners Community Solar and the District of Columbia Department of Energy and Environment (DOEE), launched the District of Columbia's first affordable housing resiliency center powered by solar and battery storage. Pepco provided a \$65,000 grant to support this project, which is representative of Pepco's broad-based effort to transform the future energy experiences for customers and communities. The Maycroft currently hosts a 70.2 KW solar panel array on its roof and a resilience room capable of powering its Family Resource Center and Teen Center for three days. The resilience room provides refrigeration for medications, a television and radio connecting residents to important information, lighting and multiple electrical outlets to charge cell phones and other communications devices. Pepco is managing the interface between the battery storage and solar installation in a pilot environment, allowing the company to learn more about how these technologies can be used in future applications. The Maycroft has 64 spacious units, a no-cost healthy food market, Jubilee's Teen Drop-In Center and Family Resource Center, as well as a host of other resources. In addition to providing a resiliency center, the project will also lead to cost savings for the residents. In 2020, Exelon invested almost \$6.6 billion across our regulated utilities in 2020 and plans to invest approximately \$27 billion from 2021 through 2024 which includes much of its effort to design and implement this plan.</p>
--	---

C3.4a

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

Nothing additional at this time

C4. Targets and performance

C4.1

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

Absolute target

C4.1a

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

Target reference number

Abs 1

Year target was set

2017

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Other, please specify

Scope 1 & 2 Controllable Operations

Base year

2015

Covered emissions in base year (metric tons CO₂e)

1,133,000

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

100

Target year

2022

Targeted reduction from base year (%)

15

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

963,050

Covered emissions in reporting year (metric tons CO₂e)

889,625

% of target achieved [auto-calculated]

143.2038834951

Target status in reporting year

Achieved

Is this a science-based target?

Yes, we consider this a science-based target, but it has not been approved by the Science-Based Targets initiative

Target ambition

2°C aligned

Please explain (including target coverage)

Exelon established this third generation GHG goal in 2017 to reduce its emissions from internal operations (100% of emissions controllable by our employees and processes) 15% from a 2015 baseline by 2022 (2.2% reduction per year). At the time, a 2.2% year over year reduction was recommended by the EPA to be in line with the Paris Accord. Our goal was intended to be achieved despite new equipment coming online due to business growth expected in 2018. The actual public facing goal is on Market-based accounting, allowing for use of clean energy purchases to be part of performance, but per CDP requirements, the goal is being reported here based on absolute location-based accounting. Emissions sources covered by this goal includes all building and support equipment electricity uses, emergency and auxiliary stationary combustion sources, fleet vehicles, natural gas distribution systems, SF₆ electrical insulated equipment, and refrigerant sources. Our controllable emissions were 10.5% of our technical Scope 1 & 2 inventory. However, emissions not included under this goal are those we own but do not have direct control over and which are measured and managed under different GHG emissions programs and considered to be customer-driven. These emission sources include our Scope 1 emissions from electric generation since the level of operation for these units is determined by grid demand for electricity and resulting plant dispatch as determined by the grid balancing authority (outside of our full operational control since we have a commitment to the grid to be available as needed to meet demand); and Scope 2 emissions associated with

transmission and distribution line losses which are primarily driven by the grid emissions rate and the volume of electricity required to be delivered to utility customers (similarly outside of our day-to-day operational control since all of the electricity we deliver is purchased per public utility commission requirements). It should be noted, that for these other sources, Exelon does maintain performance management indicators such as lbs/MWh generated and % loss of MWh delivered are used to ensure a continued focus on GHG emission reduction efforts being implemented. Looking across these three performance programs ensures ongoing management of emissions across 100% of our corporate-wide GHG inventory.

C4.2

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

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

Target(s) to reduce methane emissions

Other climate-related target(s)

C4.2a

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

Target reference number

Low 1

Year target was set

2019

Target coverage

Business division

Target type: absolute or intensity

Intensity

Target type: energy carrier

Electricity

Target type: activity

Production

Target type: energy source

Low-carbon energy source(s)

Metric (target numerator if reporting an intensity target)

MWh

Target denominator (intensity targets only)

Other, please specify

MWh of possible production

Base year

2019

Figure or percentage in base year

0

Target year

2020

Figure or percentage in target year

94

Figure or percentage in reporting year

95.4

% of target achieved [auto-calculated]

101.4893617021

Target status in reporting year

Achieved

Is this target part of an emissions target?

This KPI also ensures coverage of Scope 1 emissions from electric generation under our GHG management program. Exelon establishes capacity factor targets each year to ensure top generation performance by our nuclear fleet (zero carbon-dioxide generating emissions), as well as peak performance for our profile of renewable assets of wind and solar. This ensures that we maintain our generation emissions intensity (lbs CO₂/MWh produced) at its lowest possible rate. Because of targets like this and the achievement of past GHG emissions reduction goals, Exelon's current generation emissions intensity already today meets the emissions rate needed from the electric sector by 2030 in order for the US to meet its new NDC. Exelon's internal goals are specifically focused on the capacity factor of our units and is not expressed in a lbs/MWh intensity rate as we are not in control of the ultimate dispatch of our fossil plants (which is ultimately determined by the grid balancing authority to meet needed demand); however, the result of these related targets has the same affect. In addition, much of the GHG emissions avoided in association with this target are related to the emissions of the electric sector as a whole - which is even beyond what is considered our Scope 3 emissions, so it is difficult to capture in terms associated with our own GHG inventory; however, it can be seen as supporting US goals. This target directly determines how much zero carbon power we produce which minimizes the emissions of our owned fossil generation and fossil generation needed for broader electric grid operations. Therefore it supports U.S. aspirations for the new 50% - 52% economy-wide emissions reduction by 2030 for the U.S as recently pledged for the Paris Accord.

Is this target part of an overarching initiative?

Other, please specify

2021 US Paris Accord INDC

Please explain (including target coverage)

The KPI that Exelon maintains as reported above, which is tied to executive compensation, is associated with low carbon generation and set on the capacity factor of our Nuclear generation stations. Additional KPIs exist for the capture rates of our wind and solar facilities, all of which work together to ensure we maximize the amount of zero carbon generation that we provide to the grid. Achievement of this KPI minimizes our Scope 1 emissions from our remaining fossil generation plants, as well as those of other fossil generation on the grid, resulting in an estimated 80 million metric tons of GHG emissions avoided in 2020 (had the same volume of nuclear generation been produced by the current grid mix), and was our second best rate after 95.67% in 2019. By maximizing our clean generation, we continue to maintain our generation CO₂ emissions intensity rate for grid supplied electricity nearly 90% lower than the industry average. In fact, Exelon's current generation emissions

intensity (94 lbs/MWh in 2020) already meets the needed electric sector emissions intensity rate need to support the economy-wide reduction target for 2030. Through our zero carbon generation production targets, Exelon also supports additionality of new zero carbon generation on the grid by working to maintain the current level of zero carbon generation which is key to continuing to drive reductions in grid emissions intensity over time. Exelon's internal goals are specifically focused on the capacity factor of our units and is not expressed in a lbs/MWh intensity rate as we are not in control of the ultimate dispatch of our fossil plants; however, the result of these related targets has the same affect. It should also be noted that much of the GHG reductions associated with this target are related to the emissions of the electric sector as a whole - which is even beyond what is considered our Scope 3 emissions. This makes it challenging to capture in terms associated with our own GHG inventory, but better suited to contributions to US electric sector emissions reductions. Therefore it supports U.S. aspirations for a 50%-52% reduction economy-wide from 2005 by 2030 as recently pledged for the Paris Accord. In combination with our other two GHG program focus areas, this ensures the management of our generation emissions and extends coverage across 100% of our GHG inventory.

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2018

Target coverage

Business division

Target type: absolute or intensity

Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Energy consumption or efficiency

Other, please specify

MWh of electricity lost in distribution

Target denominator (intensity targets only)

Other, please specify

MWh of Total Electricity on System

Base year

2016

Figure or percentage in base year

7.2

Target year

2020

Figure or percentage in target year

7

Figure or percentage in reporting year

7

% of target achieved [auto-calculated]

100

Target status in reporting year

Achieved

Is this target part of an emissions target?

This KPI also ensures coverage of Scope 2 emissions from our utilities distributions systems under our GHG management program such that 100% of our emissions are being managed. Minimizing these losses also lessen demand on the grid and supports reduce emissions at the national level for the electric sector, directly supporting US performance toward its original INDC under the Paris Accord.

Is this target part of an overarching initiative?

Other, please specify

US Paris Accord INDC

Please explain (including target coverage)

The actual performance metric that Exelon maintains is on the MWh of electricity lost per MWh of electricity delivered (also known as % line losses). The MWh of electricity lost in the process of delivering our customers electricity demand is volume used to calculate our same Scope 2 emissions from Transmission and Distribution (T&D) line losses. The reported base year is the first full year of reporting for all of Exelon's utilities and is used as a benchmark. Coming in under the target is preferred and reflects the significant investment we are making in grid modernization. This metric is not established as a formal goal because ultimately line losses are dependent upon the particulars of load and demand on the grid, as well as temperature and grid congestion. Exelon invested \$6.6 billion across its regulated utilities in 2020 and plans to invest approximately \$27 billion in our utilities from 2021 through 2024 with the intent to improve grid reliability, resiliency and efficiency. This metric helps measure the direct impact of those investments on Scope 2 emissions associated with line losses. Combined with our other two GHG program focus areas, this ensures then management of 100% of our GHG inventory.

Target reference number

Oth 2

Year target was set

2016

Target coverage

Business division

Target type: absolute or intensity

Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Methane reduction target

Other, please specify

Miles of cast iron and unprotected steel pipe in current year

Target denominator (intensity targets only)

Other, please specify

Total miles of cast iron and unprotected steel on system in 2015

Base year

2015

Figure or percentage in base year

1

Target year

2021

Figure or percentage in target year

0.86

Figure or percentage in reporting year

0.79

% of target achieved [auto-calculated]

150

Target status in reporting year

Achieved

Is this target part of an emissions target?

This performance indicator is related to Exelon's participation in the EPA Methane Challenge where our formal goal is to remove more than 2% per year of cast iron and unprotected steel mains from our natural gas distribution systems from 2017 through 2021. Replacing cast iron mains with plastic material can reduce fugitive methane emissions from this pipe systems by nearly 95%. The KPI is the ratio of cast iron and unprotected steel main pipeline miles in the current year as compared to the amount on the system in the base year. The ratio target shown is



equivalent to the ratio of cast iron and unprotected steel mains if we are successful in replacing 2.5% per year through 2021. This performance also supports the emissions reductions as reported in our Operations-Driven GHG reduction goal as discussed in Abs 1.

Is this target part of an overarching initiative?

Reduce short-lived climate pollutants

Please explain (including target coverage)

This target covers fugitive emissions from our natural gas distribution systems at our utilities BGE, PECO and DPL. These are part of our Scope 1 GHG emissions inventor and included in our main Operations-Driven emissions reduction goal described in Abs 1.

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	37	
To be implemented*	33	6,453,710
Implementation commenced*	32	6,569,441
Implemented*	37	7,621,021
Not to be implemented	0	

C4.3b

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

Initiative category & Initiative type

Fugitive emissions reductions

Oil/natural gas methane leak capture/prevention

Estimated annual CO₂e savings (metric tonnes CO₂e)

15,000

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

320,000

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

188,000,000

Payback period

<1 year

Estimated lifetime of the initiative

21-30 years

Comment



BGE, Delmarva and PECO repair and pro-actively replace and upgrade their system to ensure and improve operations. Converting from cast iron piping to plastic can reduce methane emissions by 95%. All three utilities are long time members of the EPA's Natural Gas Star program and in April 2016 committed to the Methane Reduction Challenge - establishing a goal to replace cast iron and unprotected steel mains in the system at a minimum rate of 2% per year through 2021. Performance against this goal has continued to be strong, with 80 miles of cast iron main and 14 miles of unprotected steel replaced (over 4.5%) in 2020. This effort is counted as 3 projects implemented (relating one each to BGE, Delmarva and PECO), with a similar 3 projects to be implemented in 2021, under question 4.3a, as well as towards performance under 4.1a Abs1 and 4.2b Oth 2 KPI for methane emissions. Emissions, investment and cost savings which are provided are related to the 2020 pipe cast iron and unprotected steel pipe replacement projects implemented at BGE, Delmarva and PECO combined. Cost has been estimated based on approximately \$2 million per mile replaced. Actual cost may differ depending on actual project location and circumstances. As investment benefits are beyond GHG emissions reductions and include performance and safety improvement, simple ROI analysis is not appropriate for this initiative.

Initiative category & Initiative type

Low-carbon energy generation
Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

213,700

Scope(s)

Scope 3

Voluntary/Mandatory

Voluntary

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

70,000,000

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

66,000,000

Payback period

<1 year

Estimated lifetime of the initiative

16-20 years

Comment

Exelon's utilities have worked over the last several years to develop common approaches and platforms to assist and enable customers and contractors to deploy residential and commercial renewable energy, primarily solar photovoltaics, in our utility service areas. Each utility's Green Power Connection website has resources to assist customers from start to finish on their renewable energy projects. Digital Solar Toolkits are a flagship resource from our Green Power Connect programs, offering solar calculators and other tools and tips to assist in decision making. Through net metering, utilities purchase excess electricity produced from residential and commercial customers' renewable energy equipment. This effort is counted as 4 projects implemented (relating one each to BGE, ComEd, PECO and PHI), with a similar 4 projects to be implemented in 2021. Emissions are based on estimated production of projects implemented in 2020 based on a system efficiency of 20% for solar PV. Investment is estimated based on 1% of total utility investment in 2020 relating to system upgrades needed to enable these systems (not the systems themselves). Savings are estimated customer savings based on an average cost per kWh across our territories. Actual cost and savings may differ. As investment benefits are beyond GHG emissions reductions and include performance and safety improvement, simple ROI analysis is not appropriate for this initiative.

Initiative category & Initiative type

Fugitive emissions reductions

Other, please specify

SF6 emissions reductions

Estimated annual CO2e savings (metric tonnes CO2e)

4,500

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

3,375

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

3,400,000

Payback period

<1 year

Estimated lifetime of the initiative

21-30 years

Comment

SF6 leakage occurs from high voltage electrical equipment that is part of utilities' transmission and distribution systems. As an early member of the EPA Partnership for SF6 Reduction, Exelon's utilities have invested significantly in SF6 leak reduction programs, which include advanced leak detection, improved material tracking, targeted repairs and replacements and equipment upgrades. ComEd, BGE, PECO, ACE, Delmarva and PEPCO continue to reduce SF6 releases through early leak detection, prioritization of leak repairs and replacement of aging SF6 breakers. PECO completed the replacement of 9 first-generation SF6 breakers in 2020, with 10 dual pressure breakers remaining. Emissions reductions presented are based on the 5-year average SF6 leakage as recorded from the breakers that were replaced, although actual system fugitive emissions will be dependent upon many factors, including weather. Annual savings relates to the cost to replace average historical leaked volume from the switch gear that has been replaced. Financial investment information is approximate and estimated based on an average replacement cost per breaker, as these efforts were combined with larger system system performance improvements. Pay back is not appropriate as the project encompasses greater reliability benefits as well. This is accounted for as 6 projects (one for each utility) implemented under 4.3a, one for each utility, and directly relates to our GHG reduction goal as described in 4.1a Abs1.

Initiative category & Initiative type

Low-carbon energy consumption

Wind

Estimated annual CO2e savings (metric tonnes CO2e)

9,259

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

0

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

42,580

Payback period

No payback

Estimated lifetime of the initiative

<1 year

Comment

Exelon's utilities ComEd and PECO offsets indirect emissions from their own electricity use through the retirement of renewable energy credits (RECs) to support our net GHG annual target. In 2020, they retired an additional 106,950 RECs, 25,805 MWhs more than the prior year. REC certificates purchased are Green-e Certified, which insures they are sourced in the United States, and are retired in support of ComEd and PECO's green building initiatives. These clean energy attributes are currently used in our market-based accounting view of our Scope 2 emissions as described in our GHG goal description outlined in 4.1a (Abs 1). Because these RECs were purchased through multi-year contracts, annual cost has been estimated based on an average cost of \$1.65/MWh REC, and only represents the additional RECs purchased beyond that purchased for the prior year. Similarly, emissions reductions shown are just those associated with the volume of RECs beyond

what was purchased the previous year. There is no savings or payback associated with the purchase of RECs. This is counted as 2 actions implemented in 4.3a.

Initiative category & Initiative type

Low-carbon energy consumption

Other, please specify

Nuclear

Estimated annual CO₂e savings (metric tonnes CO₂e)

9,340

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

0

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

0

Payback period

No payback

Estimated lifetime of the initiative

<1 year

Comment



Exelon Generation and BSC also offsets indirect emissions from its own electricity use through the retirement of emissions free energy credits (EFECs) to support our net GHG annual target. In 2020, we retired an additional 2,000,000 MWhs, 26,000 MWhs more clean energy attributes towards our goal than we did in 2019. EFECs are from PJM ISO, where these zero emission nuclear attributes are similarly tracked and retired by certificate number and third-party verified with respect to retirement and no double-counting. These clean energy attributes are currently used in our market-based accounting view of our Scope 2 emissions as described in our GHG goal description outlined in 4.1a (Abs 1). The value of EFECs is not reflected, as we are currently able to retire EFECs from our own nuclear generation stations at no cost. Similarly, emissions reductions shown are just those associated with the volume of EFECs beyond what was purchased the previous year. There is no savings or payback associated with this initiative. This is counted as 1 action implemented in 4.3a.

Initiative category & Initiative type

Low-carbon energy consumption

Other, please specify

RPS Renewable Energy Obligations Depend on State Requirements

Estimated annual CO2e savings (metric tonnes CO2e)

3,686,894

Scope(s)

Scope 3

Voluntary/Mandatory

Mandatory

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

0

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

0

Payback period



<1 year

Estimated lifetime of the initiative

1-2 years

Comment

Exelon's Utilities and Constellation purchase Renewable Energy Credits to add renewable electricity to that which they deliver to their customers per state Renewable Portfolio Standards (RPS). In the 2020 reporting year, BGE purchased approximately 3.7 million RECs to satisfy Maryland Renewable Portfolio Standards, ComEd purchased 1.9 million IL Wind and Solar RECs, and PECO purchased over 1.95 million RECs for their state specific portfolio standards. In addition, the PHI utilities retired a total of 5 million RECs for ACE, Delmarva and PEPCO combined. These RECs are procured on behalf of Exelon's customers in accordance with the state portfolio supply statutory requirements. Emissions reductions are Scope 3 and can be attributed to cleaner energy being used (or supported) by our customers. Estimated annual CO2e savings relate to the avoided emissions associated with these MWhs at the PJM residual emissions rate. These RECs are associated with the year they are retired, although as they encourage the clean energy market, they help to promote new renewable generation which can become a permanent emission reduction. There is no investment by the Utility as costs are passed through to the customer in accordance with their local utility specific rate case agreement. Payback is considered immediate because this is part of a compliance program. This is counted as 6 initiatives implemented each year under 4.3a (one for each of our six utilities).

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

Customer Energy Efficiency Programs

Estimated annual CO2e savings (metric tonnes CO2e)

1,291,645

Scope(s)

Scope 3

Voluntary/Mandatory



Mandatory

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

421,408,048

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

572,000,000

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

Exelon's delivery companies — BGE, ComEd, PECO, Delmarva, and PEPCO—each implement a portfolio of leading-edge energy efficiency and demand response programs that help our customers reduce their energy consumption. This reduced energy use translates to reduced Scope 2 emissions for Exelon's customers, which is a reduction in Scope 3 emissions for Exelon. These emissions reductions are driven by state public statutes that outline requirements for energy efficiency programs for utilities; however, Exelon utilities have been recognized by ENERGY STAR® Partner of the Year Awards from the EPA for their exemplary implementation year over year. The emissions reductions shown are for new activities implemented in 2020, although additional reductions are present as a result of efforts implemented in previous years that continue to reduce use. Customer bill savings as presented is based on an average rate of \$0.118/KWh, based solely on 2020 MWh savings, and do not include rebates issued. The investment is estimated for initiatives implemented in 2020 across all Exelon utilities. While not quantified, Exelon utilities may also see savings through avoided maintenance/need for expansion as related to our delivery system. These are public service programs under which we operate, therefore specific pay back does not directly apply, although a typical payback for the types of actions included has been provided. This is counted as 6 projects implemented (one for each utility) under 4.3a.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify



Retail Customer Energy Efficiency Services (variety)

Estimated annual CO2e savings (metric tonnes CO2e)

280,000

Scope(s)

Scope 3

Voluntary/Mandatory

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

34,220,010

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

0

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

Exelon's Constellation Energy Solutions and BGE Home organizations works with customers to develop cost effective energy efficiency projects that help to drive down their electricity and natural gas use. These projects are voluntary and result in reductions of our Scope 3 emissions (Scope 1 and 2 emissions of our customers) that last for the life of the more efficient equipment or home improvements (which varies based on the project). These GHG abatement activities are based on Constellation Efficiency-Made-Easy program and their Performance-Based Projects which combined are estimated to have saved over 290,000 MWh of electricity and more than 1.3 million British thermal units of natural gas in 2020. Emissions avoided are based on regional emission factors. Annual monetary savings would be that of our customers and was based on an average cost of electricity of 0.118\$/kwh and an average cost of natural gas of \$7.89/mscf. Investment would also be that of our customers

and does not apply to Exelon. Payback is representative of a typical threshold; the actual payback period would vary based on project type. This is accounted for as one action implemented in 4.3a.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

A variety of energy efficiency, BMS, and building consolidation efforts combined

Estimated annual CO₂e savings (metric tonnes CO₂e)

5,752

Scope(s)

Scope 1

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

1,089,285

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

0

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment



Exelon has 25 LEED certified buildings which it maintains to ensure continued optimal performance. In addition, Exelon is continually working to improve space use and consolidation operations and employees from older, less efficient spaces as possible. Our newest LEED certified corporate headquarters in Baltimore, has onsite solar generation, high efficiency building systems, high efficiency lighting and elevators and maximizes space and use of natural lighting for employees. The GHG savings is the GHG emissions associated with the differences in our Utilities' building energy use between 2019 and 2020 at PJM grid average, and may capture some changes due to weather and/or grid emission rates. Savings is based on the cost of that reduced MWh assuming a cost of \$0.118/kwh, as well as a reduction of mmbtu of natural gas use for heating at a cost commercial retail cost of \$7.89/mscf. Costs, savings and payback are not directly applicable for these projects as there were many other business considerations associated with the design and construction of these spaces, and more efficient equipment may be part of life cycle equipment replacement plans. This is accounted for as 1 project implemented under 4.3a, and directly relates to our GHG reduction goal as described in 4.1a Abs1.

Initiative category & Initiative type

Transportation
Company fleet vehicle replacement

Estimated annual CO2e savings (metric tonnes CO2e)

3,000

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

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

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

Exelon Utilities have committed to the EEI Electrification Challenge, where we have committed to spend at least 5 percent of our annual fleet acquisition budget on plug-in technology. In 2020, this resulted in the purchased of plug-in hybrid vehicles, battery electric vehicles, non-electric drive vehicles with plug-In technology, and both Level 2 chargers and DC Fast Chargers. GHG emissions reductions are based the change in fleet vehicle associated emissions between 2019 and 2020, and include a combination of electric vehicle purchases, idle avoidance, ongoing biofuel use programs and changes in driving needs or patterns. Actual emissions year over year depend on vehicle dispatch which may be impacted by system repair needs or storm recovery. These emissions reductions are directly tied to performance under the Operations-drive emissions target in 4.1a (Abs1). This accounts as four projects implemented under 4.3a (one for each participating Exelon utility). Total investment and savings is for all vehicle electrification investment is note available at this time. Payback and estimated life time of the initiative are estimated based on our typical ROI thresholds.

Initiative category & Initiative type

Other, please specify

Other, please specify

Fossil electric generation plant retirement

Estimated annual CO2e savings (metric tonnes CO2e)

231,921

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary



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

0

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

0

Payback period

<1 year

Estimated lifetime of the initiative

>30 years

Comment

Exelon retired two fossil generation units including Westport and Notchcliff in 2020. Emissions shown are the reductions realized in 2020, even though they may have only been retired a portion of the year. Annual monetary savings, investment required, and payback are not applicable to this action. The emissions reductions are permanent.

Initiative category & Initiative type

Low-carbon energy consumption

Wind

Estimated annual CO2e savings (metric tonnes CO2e)

1,865,718

Scope(s)

Scope 3

Voluntary/Mandatory

Voluntary

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

0

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

0

Payback period

No payback

Estimated lifetime of the initiative

<1 year

Comment

Exelon's Constellation Retail organization markets RECs for voluntary carbon emissions offset and investment by individuals, private and public organizations. Their efforts resulted in the sale of over 5.2 million MWh's worth of RECs for voluntary retirement in 2020, equivalent to approximately 1.86 million metric tonnes of avoided CO₂e at PJM grid average emissions rate. These avoided emissions are Exelon's Scope 3 emissions associated with our customer's use of the products we provide. Annual monetary savings is not applicable to the category. Investment would be that of our customers. There would be no financial payback associated with REC purchases. This is accounted for as one action implemented in 4.3a

C4.3c

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

Method	Comment
Other Internal GHG Program Targets	Each year Exelon sets an annual net GHG target for operational emissions - which is a milestone on the path to achieving our 5-year reduction goal. This is reported on quarterly to upper management, and annual performance towards this goal is reported annual to the public as part of our Corporate Sustainability Report. Exelon also monitors several other key metrics related to GHG emissions performance. These include customer abatement which are avoided emissions associated with our utility customer energy efficiency programs and RPS REC commitments; % line losses which is an indicator of the efficiency of our distribution system; and the emissions intensity of our merchant electric generation portfolio. Our generation emissions intensity is directly related to operational performance targets set

	for the operational capacity factor for our nuclear plants and capture rates for our wind and solar facilities. These target help to keep the importance of GHG mitigation and the transition to a clean energy economy in discussion throughout Exelon and a regular part of how we do business.
Compliance with regulatory requirements/standards	In response to state requirements for electric utility companies to develop cost-effective plans to reduce electricity consumption, the Exelon companies have implemented a portfolio of leading-edge energy efficiency and demand response programs. These programs have helped our customers reduce their energy consumption by more than 63 million MWh over the last three years alone. Our energy efficiency programs place Exelon third among the nation's utilities in terms of customer energy savings. Over the next three to four years, consistent and significant investment in these programs will continue.
Dedicated budget for low-carbon product R&D	Exelon is also working to develop and expand the use of hourly pricing programs. For example, ComEd's hourly pricing program allows enrolled residential customers to pay real-time market electricity prices, which vary from hour to hour. Through this program, customers who take advantage of lower prices (e.g., shifting the use of large electric appliances to lower-priced off-peak hours) can potentially save money on their electricity bills while helping the utility reduce peak load demand. Peak load generation pulls on the least efficient, often highest emitting generating plants. Better managing peak load can ultimately reduce GHG emissions relating to these fossil peaking generating plants.
Partnering with governments on technology development	Exelon and its operating companies often collaborates with local, state and federal government entities to pilot new technologies and support the advancement of climate adaptation and GHG emissions reduction goals. As an example, Delmarva Power partnered with the City of Wilmington, Delaware on Wilmington 2028, a plan that envisions creating a "brighter, safer, cleaner and technologically-advanced city." The work integrates community development opportunities, expands partnerships and uses smart city technology to create a safer, smarter, more sustainable and more connected community. The initial project with Delmarva Power focuses on LED smart streetlight conversions, smart sensor technologies and electrification opportunities. Phase One of ConnectWilmington included a pilot LED Streetlight conversion of 250 streetlights. Within the demonstration area Delmarva Power worked with the City of Wilmington to showcase three smart city sensors: traffic monitoring, gunshot detection and air quality monitoring sensors to understand priority issues for the city. In the future, Delmarva Power will expand work in the city to include expansion of the LED streetlight conversion, an indoor agriculture pilot, implementation of an electric bus and additional smart sensor and smart cities technologies.

Compliance with regulatory requirements/standards	Exelon maintains an ISO 14001 certified Environmental Management System to ensure that we maintain compliance with all state and federal regulatory requirements, to include those related to GHG emissions management, either through the EPA's Part 98 Mandatory GHG reporting program or a regional effort to reduce GHG emissions directly. One example of a regional compliance program is the Regional Greenhouse Gas Initiative (RGGI), which several states recently took steps to join or rejoin, including New Jersey, Virginia and Pennsylvania. We also support many eastern states' efforts to stand up the Transportation and Climate Initiative (TCI), which, when implemented, will employ a similar regional approach to reduce GHG emissions from transportation fuels.
Dedicated budget for low-carbon product R&D	Exelon maintains a Technology Exchange Council and an Emerging Technology Team whose missions are to explore new and emerging technologies relating to electricity generation, storage, transmission and distribution. Exelon also maintains Constellation Technology Ventures (CTV), an organization that invests in venture-stage firms developing innovative, energy-related technologies. Our Partnership R&D Program, which complements the TechEXChange, invests in early-stage technology innovation by funding and collaborating on projects at leading research institutions, including Argonne National Laboratory, MIT, Northwestern University and the University of Illinois. Over three years, Exelon screened over 100 technology ideas through its R&D program and invested in 22 transformative projects. These projects support our access to new markets and products; enhance customer value; contribute insights in key science, technology and industry trends; enable Exelon to obtain ownership of and access to valuable technical intellectual property; enhance our workforce by challenging existing patterns of thinking within the company; and create solutions for technical and market challenges. . Through the Partnership R&D program, Exelon engages the intellectual ecosystem that is developing technologies that will revolutionize the industry. This two-way collaboration benefits researchers who want to ensure that their work is relevant. As researchers draw on data, expertise and leadership from our subject matter experts, they ensure that Exelon actively produces transformative technology that will benefit its customers. One recent example relates to how Hydrogen can be used in a clean energy economy in a variety of applications, such as energy storage or as a clean fuel for transportation and other applications. In 2019, Exelon received a conditional commitment from the DOE to co-fund a demonstration of a hydrogen electrolyzer at a nuclear plant site, and began with project planning in 2020. The project will demonstrate dynamic operation of an electrolyzer in a manner that paves the way for at-scale, electricity price-responsive, hydrogen production. In addition, it will supply hydrogen internally to the associated nuclear plant.
Employee engagement	Exelon uses many employee engagement activities, such as contests, events and volunteer opportunities to make employees aware of the importance of GHG management and climate change adaptation to the corporation and elicit

	<p>ideas and input on how best to integrate this initiative into their day-to-day roles and responsibilities. Specifically our Eco-Team employee resource groups are funded initiatives that support electricity use reduction, greening of office and home activities in support of GHG reductions and sustainability education. An example of a tool we have developed to help with both employee and community engagement is the EcoCRED is a mobile application (available through the Apple Store and Google Play) that helps consumers and communities develop eco-conscious habits to reduce their environmental impacts. The EcoCRED app educates users about their carbon footprint and provides resources to learn more about the climate crisis. However, EcoCRED isn't just about understanding a user's impact — it's about taking real climate action. EcoCRED shows how a user's actions can make a difference at both the personal and community level and offers product guides to help users make positive lifestyle changes. Features such as community rankings, personal statistics and rewards motivate users to remain consistent.</p>
Financial optimization calculations	<p>Exelon typically evaluates all capital investment decisions on the basis of traditional financial metrics - such as net present value (NPV), internal rate of return (IRR), and payback periods - in a variety of pricing and operational environments (or cases). Certain cases may assume more or less stringent environmental standards or a regulatory price on carbon, and the outcomes in these scenarios are incorporated into the investment decision through analytical tools such as Monte Carlo simulation.</p>
Internal finance mechanisms	<p>Exelon assigns a technology-specific cost of capital to different assets. This technology-specific cost of capital incorporates the potential cost associated with varying emission and GHG policies (such as a carbon tax, cap and trade program or other form of price on carbon) by embedding a specific risk premium into the required equity return and the appropriate capital structure.</p>
Other Community Engagement	<p>Exelon maintains a high involvement with the communities in which we work, and emphasized education on energy efficiency and the science of electricity. PECO offers "Energizing Education" for middle schools, a program that assists participants with school and home energy audits. Exelon Generation maintains the Fairless Hills Renewable Energy Education Center and the Conowingo Hydroelectric Facility Visitor Center, both of which focus on promoting the power of renewable energy sources. Exelon Nuclear is a major sponsor of the Delaware Valley Science Fair in the Philadelphia area, providing funding as well as personnel support. Company volunteers are also involved in weatherization projects through Habitat for Humanity.</p>

C4.5

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

Yes

C4.5a

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

Level of aggregation

Group of products

Description of product/Group of products

Exelon merchant electric generation produces nearly 10% of the zero-carbon generation on the US electric grid. We sell this generation to wholesale and retail customers, helping to keep grid emissions rate as low as possible. Our nuclear fleet plays a significant role in zero-carbon electric generation in the U.S., and we support and invest in climate action that maximizes and expands the capacity of our nuclear facilities. We achieved a 95.4 percent capacity rate across our fleet in 2020 and we have invested in uprates that added 575 MW of new nuclear capacity at our existing sites since 2008. Our ownership of 18,880 MW of zero-carbon generation capacity at 23 nuclear units produced 156 TWh of electricity in 2020. In 2020, Exelon Generation's owned-generation intensity rate was 94 pounds of CO₂ per MWh, about 90 percent lower than the national average emission rate (see the Reducing Our Air Emissions section). This level is far below the contemporaneous glide path intensity rate suggested by the Science Based Targets initiative as necessary for industry to progress toward limiting average global temperature increase to 2C by 2050. The national electric sector emissions rate (884 pounds of CO₂ MWh of electricity supplied) would be 4% higher without Exelon's nuclear generation. In the grid areas where we operate, electric sector emissions rate would be 19 percent and 14 percent higher in PJM and New York ISOs respectively without Exelon's nuclear generation. Because of the significant contribution of our nuclear fleet, the future of our generation emissions intensity rate will depend on the success of these plants in the electric markets. Exelon will continue to advocate for meaningful carbon pricing policies that recognize the value of these assets now and into the future. We have also



created specific retail electricity products to help transfer the GHG benefits of our generation fleet to their own GHG Scope 2 market-based emissions accounting. These include Carbon Free, NewMix and CoRE, helping customers more easily access 100% nuclear, 100% renewable or direct project support renewables.

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

Low-carbon product and avoided emissions

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

Other, please specify

WRI GHG accounting methodology and with avoided emissions being calculated at grid residual emissions rate

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

47

Comment

47% of revenue is an estimate based on the ratio of zero carbon electricity generation to total generation produced (89%) applied to the percent of revenue from generation as compared to total revenue for the corporation (50%). Other related business efforts include coordination of REC and EFEC sales for customers and increasing customer access to lower carbon generation purchases which occurs in our Constellation retail branch of our generation company. These additional revenue streams are not covered in the above estimated number.

Level of aggregation

Group of products

Description of product/Group of products

We are committed to assisting our customers in saving money, reducing emissions and managing their energy use. While our customers are interested in reducing emissions from energy use, we understand that affordability will always be a critical component of our customers' decisions. Our programs enable us to partner with our communities, creating innovative opportunities to grow the workforce while helping our communities reach their sustainability goals. In 2020, through a combination of new and prior-year investments, our Exelon utilities helped customers save over 22.3 million MWh of energy through the ComEd and PECO Smart Ideas® programs, BGE Smart Energy Savers Program® and PHI Home Energy Savings Program.® This equates to almost 8.1 million metric tons of CO₂e emissions avoided, the equivalent

of nearly 932,000 homes' energy use for one year or the carbon sequestered by 10.5 million acres of U.S. forest in one year. These programs enable customer savings through home energy audits, lighting discounts, appliance recycling, home improvement rebates, equipment upgrade incentives and innovative programs like smart thermostats and combined heat and power programs.

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

Avoided emissions

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

Other, please specify

WRI GHG accounting methodology and with avoided emissions being calculated at grid residual emissions rate

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

0

Comment

Exelon's utilities are generally allowed to recover costs associated with the energy efficiency and demand response programs they offer. Each commission approved program seeks to meet mandated electric consumption reduction targets and implement demand response measures to reduce peak demand. The programs are designed to meet standards required by each respective regulatory agency. ComEd is allowed to earn a return on its energy efficiency costs.

C-EU4.6

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

Our local gas delivery businesses BGE, Delmarva and PECO repair and pro-actively replace and upgrade their system to ensure and improve operations associated with their natural gas distribution systems. Converting from cast iron piping to plastic can reduce methane emissions by 95%. All three utilities are long time members of the EPA's Natural Gas Star program and in April 2016 committed to the Methane Reduction Challenge - establishing a goal to replace cast iron and unprotected steel mains in the system at a minimum rate of 2% per year through 2021. Performance against this goal has continued to be strong, with 79.7 miles of cast iron main and 14.5 miles of unprotected steel replaced (over 4.5% replacement rate) in 2020. This effort is counted as 3 projects implemented (relating one each to BGE, Delmarva and PECO), with a similar 3 projects to be implemented in 2021, under question 4.3a, as well as towards performance under 4.1a Abs1 and 4.2 KPI for methane emissions.

Exelon's gas distribution affiliates use the following equipment to monitor emission leaks on transmission and distribution pipes: Optical Methane Detectors, Remote Methane Leak Detectors, Detecto Pak-Infrared and Sensit Gold G2. Exelon's gas distribution companies monitor pipelines for leaks in accordance with 49 C.F.R. § 192.706 (for transmission lines) and 49 C.F.R § 192.723 (for distribution lines). Their leak-grade repair timeframes and prioritization methodologies exceed federal requirements. Exelon bases its leak grading system on guidance material from the Gas Pipeline Technology Committee (GPTC): Exelon uses four different grades of natural gas leaks (Grades 1, 2A, 2B and 3); Exelon repairs hazardous leaks (Grade 1) promptly in accordance with 49 C.F.R. § 192.703; Exelon's response time for Grade 2A and 2B leaks exceeds the regulatory requirements specified in Section 192.703.

With regard to our generation plants, cost of fuel and fuel efficiency are two key factors determining the financial viability of a natural gas electric generation station. Because of that, Exelon is focused on minimizing leakage of natural gas at these locations through regular inspections and preventative maintenance programs throughout the facilities. Exelon's largest natural gas generation units are its Combined-Cycle Generation Turbines (CCGTs), such as Wolf Hollow and Colorado Bend in Texas, Hillabee in Alabama and Mystic station in Boston, Massachusetts. For the CCGT units at these plants, all built in the 21st century, Exelon further maintains heat rate targets for their electric generation performance, targeting to ensure high levels of generation production per mscf of fuel burned. These goals ensure that plant personnel are continually working to optimize the unit performance and minimize fuel loss or waste. Each unit has its own 5-year performance target goal, with annual milestone targets to drive continual improvement in unit efficiency. Exelon also retired its last bituminous coal-fired plants in 2011/2012 and no longer owns any coal-fired generation as part of its business and environmental strategy; removing the issue of coal-fired generation GHG emissions and coal pile methane emissions from the company's GHG inventory also represents a significant accomplishment in minimizing methane emissions from electricity generation.

C5. Emissions methodology

C5.1

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

Scope 1

Base year start

January 1, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO₂e)

5,126,962

Comment

As re-verified in 2019 for to reflect the Fitzpatrick and Everett LNG acquisitions, and the Colorado Bend, Mountain Creek, Wolf Hollow and LaSalle divestitures in 2017 and 2018. Equity-share boundary

Scope 2 (location-based)

Base year start

January 1, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO₂e)

7,332,357

Comment

As re-verified in 2019 for to reflect the Fitzpatrick and Everett LNG acquisitions, and the Colorado Bend, Mountain Creek, Wolf Hollow and LaSalle divestitures in 2017 and 2018. Equity-share boundary

Scope 2 (market-based)

Base year start

January 1, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO₂e)

5,644,251

Comment

As re-verified in 2019 for to reflect the Fitzpatrick and Everett LNG acquisitions, and the Colorado Bend, Mountain Creek, Wolf Hollow and LaSalle divestitures in 2017 and 2018. Equity-share boundary

C5.2

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

ISO 14064-1

The Climate Registry: Electric Power Sector (EPS) Protocol

The Climate Registry: General Reporting Protocol

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

The Greenhouse Gas Protocol: Scope 2 Guidance

US EPA Mandatory Greenhouse Gas Reporting Rule

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)

8,492,517

Comment

Equity-share boundary

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

Equity Share Boundary; Scope 2 location-based uses the specific ISO average emission factor if available for the region, otherwise employing the EPA eGRID sub-regional factors from 2018 data set as issued in 2/2020; Scope 2 market-based use ISO residual factors where available, otherwise employing the EPA eGRID sub-regional factors from 2018 data set as issued in 2/2020 where ISO regional rates are not available. Scope 2 market-based also reflects Exelon purchases of Green-e RECs and PJM Emissions Free Energy Credits attributed to nuclear generation in this ISO where such attributes are tracked and able to be retired to a specific user.

C6.3

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

Reporting year

Scope 2, location-based

5,227,670

Scope 2, market-based (if applicable)

4,477,629

Comment

Equity share boundary

C6.4

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

Yes

C6.4a

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

Source

Minuscule sources as defined by The Climate Registry for the electric sector. Includes leak measurement from refrigerant units less than 50 lbs.

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

No emissions excluded

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

No emissions excluded

Explain why this source is excluded

Emissions would be extremely difficult to estimate and may include refrigerants for units of less than 50 pounds, acetylene from welding, site barbecues, lawn mowing equipment, etc that are not significant to our operations.

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

3,325,000

Emissions calculation methodology

This estimate has been calculated based on the Electric Utility Sustainable Supply Chain Alliance Scope 3 Hot Spot Analysis work aimed at assessing typical purchased goods and services emissions associated with the average U. S. electric utility business (350,000 mtCO₂e per billion dollar of spend). A more refined specific analysis of Exelon's spend will be conducted as this program evolves.

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

10

Please explain

As a member of the Electric Utilities Industry Sustainable Supply Chain Alliance, Exelon supported an effort to conduct a Scope 3 Purchased goods and services category hot spot analysis as a formal way to help all members advance in this area and begin to set priorities around supply chain GHG emissions engagement. The Alliance used it to identify priority areas of influence based on aggregated allocation of spend, the carbon footprint of those spend categories, and opportunities to influence on these emissions. This helped to identify Construction Services as a key priority category that all utilities should focus on for potential Scope 3 emissions reductions. We listed 50% of emissions using data obtain from suppliers as the analysis was an aggregate of all participating EUISSCA members. A more refined specific analysis of Exelon's spend will be conducted as this program evolves.

Capital goods

Evaluation status

Not relevant, explanation provided

Please explain

Nuclear fuel is considered a capital good for our business. At this time, there are no potential emissions reductions initiatives that could be undertaken by the company relating to these Scope 3 emissions associated with this category.

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

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

93,653,900

Emissions calculation methodology

These emissions represent emissions associated with electricity not purchased or generated by Exelon, but that is distributed by our utilities ACE, BGE, Delmarva, PECO, Pepco and ComEd to their customers (and accounted for as our customers Scope 2 emissions), as well as the emissions that have been calculated include long term power purchase agreements and spot market purchases for generation in addition to our owned assets which are sold and traded as part of the Constellation retail and wholesale business. Attributes associated with renewable energy may be sold as RECs. eGRID plant specific emissions rates were employed for generation suppliers with long-term PPAs. Grid emissions rates are used for estimating emissions associated with electricity delivery as supplier rates are not typically available. National average grid mix was used for supply where source generation was not specified. These scope three emissions do not include life cycle emissions of the fuels we use for generation.

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

60

Please explain

Scope 3 emissions associated with fossil fuels purchased for use in electric generation are not publicly disclosed at this time due to the wide variability in possible emissions factors for this accounting. We are working with a variety of organization to promote better consistency around such factors to improve and encourage more reporting of that portion of this category.

Upstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

At this time, these are not potential emissions reductions that could be undertaken by the company. Upstream transportation and distribution for Exelon's business would relate to transmission lines for electricity and pipelines for natural gas not owned by Exelon and for which Exelon could not reasonably make an impact on with regard to GHG emissions reductions at this time.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

44,250

Emissions calculation methodology

Exelon uses the new EPA EPA Wastewise WARM guidance. Performance will be measured off of a similar revised prior year's emissions. Due to delays associated with Covid-19, Exelon was not able to include the emissions associated with waste management in its annual third party verification process for calendar year 2020.

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

75

Please explain

Exelon does estimate some of the waste generation amounts in association with dumpsters that are only weighed periodically

Business travel

Evaluation status

Relevant, calculated



Metric tonnes CO2e

11,113

Emissions calculation methodology

Exelon uses the latest EPA GHG Emissions Factor Hub emissions factors for calculation of business travel emissions beyond those captured from our fleet vehicles and aircraft in our Scope 1 emissions.

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

100

Please explain

Exelon receives summaries of our miles traveled by each mode of transportation from our business travel agency.

Employee commuting

Evaluation status

Not relevant, explanation provided

Please explain

At this time, there are not significant emissions reductions that could be undertaken or influenced by the company for employee commute given that the means of calculating these types of emissions would have to be based on assumptions that would not cleanly pick up efforts made to reduce emissions.

Upstream leased assets

Evaluation status

Relevant, calculated

Metric tonnes CO2e

16,467

Emissions calculation methodology



Exelon uses The Climate Registry General Reporting Protocol for the calculation of these emissions. These emissions are included in our annual GHG verification activities and are included as part of our operational control emissions as reported in our verification statement as attached below. There are some buildings for which actual data cannot be obtained and electricity use is estimated based on the square footage leased.

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

90

Please explain

Exelon does capture these buildings in its internal performance goals for GHG management, and works to drive emissions reductions where it is able to influence energy purchasing or building efficiency, and considers these emissions as part of its Scope 2 emissions for verification as we verify under an equity share boundary for our inventory. (leased building emissions are considered Scope 3 under an operational boundary).

Downstream transportation and distribution

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

0

Emissions calculation methodology

The primary emissions associated with transportation and distribution of our products (electricity and natural gas) are already captured as part of our Scope 1 and 2 inventory.

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

100

Please explain

Exelon's emissions associated with transportation and distribution of our products is captured under our Scope 2 emissions associated with Line Losses which are accounted for in accordance with The Climate Registry's Electric Sector Protocol and are verified as part of our annual GHG verification activities. Therefore there are no sources for us to capture under this category of Scope 3 and 0 emissions.

Processing of sold products

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

0

Emissions calculation methodology

Exelon does not have having processing of sold products that is not captured under its Scope 1 and Scope 2 inventory

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

100

Please explain

Exelon does not have having processing of sold products that is not captured under its Scope 1 and Scope 2 inventory.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

84,734,024

Emissions calculation methodology

These emissions are related to the use of natural gas delivered by Delmarva, PECO and BGE to customers (and accounted for as our customers Scope 1 emissions); as well as natural gas sold by our Constellation retail and wholesale organization.

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

100

Please explain



Emissions are accounted for in accordance with The Climate Registry's Electric Sector Protocol as a fundamental part of T&D line loss emissions calculations, which are verified as part of our primary emissions verification. Data is as acquired from customer delivery meters. Exelon has also begun to capture the use of natural gas sold by our Constellation wholesale and retail organization, which would be an additional 74.54 million metric tons of Scope 3 emissions.

End of life treatment of sold products

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

0

Emissions calculation methodology

There is no end of life treatment required for of our primary products: wholesale and retail electricity and retail natural gas.

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

100

Please explain

There is no end of life treatment required for of our primary products: wholesale and retail electricity and retail natural gas.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Exelon's Eddystone facility started to lease a portion of its property for transfer of fuel from rail to barge in 2014. This operation is small in comparison to our other operations.

Franchises



Evaluation status

Not relevant, calculated

Metric tonnes CO2e

0

Emissions calculation methodology

Exelon did not have any applicable franchises in 2020.

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

100

Please explain

Exelon did not have any applicable franchises in 2020.

Investments

Evaluation status

Not relevant, explanation provided

Please explain

At this time, Exelon's primarily business is as an energy holding company with operations associated with electric and gas distribution and electric generation. This Scope 3 category is applicable to investors (i.e., companies that make an investment with the objective of making a profit) and companies that provide financial services, and is thus not relevant to Exelon at this time.

Other (upstream)

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

0



Emissions calculation methodology

Exelon did not have any other applicable upstream sources in 2020

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

100

Please explain

Exelon did not have any other applicable upstream sources in 2020.

Other (downstream)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

390,550

Emissions calculation methodology

These emissions are accounted for in accordance with The Climate Registry's General Reporting Protocol. These emissions include emissions associated with electric generation, heating and cooling equipment we do not own but that we operate for others; or lease to others for their operations (such as fuel cells) primarily under our Energy Solutions business.

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

100

Please explain

These emissions are included in our annual GHG verification activities and are included as part of our operational control emissions reported through the Climate Registry and as reported in our verification statement as attached below. Note that supplemental biomass emissions associated with this category is not included in the emissions reported above, but was 67,358 metric tons in 2020 from this source.

C6.7

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

Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO₂.

	CO ₂ emissions from biogenic carbon (metric tons CO ₂)	Comment
Row 1	717,964	Includes emissions from biogas and biomass generation facilities, as well as biogas fuels used in our fleet vehicles. Exelon has has 131 mtCO ₂ e of biogenic emissions associated with indirect district heating associated with a trash to steam facility.

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

0.00039

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

12,970,147

Metric denominator

unit total revenue

Metric denominator: Unit total

33,039,000,000

Scope 2 figure used

Market-based

% change from previous year

5.5

Direction of change

Decreased

Reason for change

Exelon saw a 5.5% reduction in this metric since total gross market-based emissions went down more significantly than did total revenues. It should be noted that our intensity rate is extremely low for our industry. In 2020, we saw decreases in our Scope 1 emissions as a result of various emission reduction activities, such as our natural gas pipe replacement program, retirement of fossil electric generation peaking facilities and fleet vehicle electrification efforts, but also because of changes in energy use patterns and how electric generation stations dispatched. In addition, our overall market-based emissions total also was reduced due to increased procurement of clean energy to cover the electric use of our operations, and we continue to invest in our distribution system infrastructure to improve efficiency and resiliency which also has the potential to reduce GHG emissions associated with line losses (such as voltage conservation reduction projects). Therefore the ultimate performance is a result of our ongoing efforts to reduce emissions, as well as impacts from external factors relating to grid dispatch.

Intensity figure

0.0426

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

7,740,217

Metric denominator

megawatt hour generated (MWh)

Metric denominator: Unit total

181,368,855

Scope 2 figure used

Market-based

% change from previous year

5.8

Direction of change

Decreased

Reason for change

This metric is the electric generation emissions intensity of Exelon's owned electric generation portfolio, which is one of the cleanest of the large producers in the nation. In 2020, Exelon Generation's owned-generation intensity rate was 0.0426 mtCO₂e/MWh produced and this is directly a result of our operational excellence targets. For the fifth year in a row, the Exelon-operated fleet achieved a capacity factor in excess of 94 percent, with production of 156,637 GWh (ownership share) and our second best ever fleet capacity factor of 95.4%. Our dispatch match — a measure of unit revenue capture when it is called on for generation — was 98.4 percent. Our utility-scale wind and solar energy capture rate was 93.4 percent. The Exelon Generation wind fleet in 2020 included 746 MW of utility-scale wind turbines operating in 10 states and 613 MW of commercial- and utility-scale solar across 11 states and the District of Columbia. Maximizing our zero carbon generation performance each year is part of our emissions reduction strategy as it reduces the need for fossil generation dispatch (and thus emissions) to fulfill grid demand. Exelon's of CO₂ per MWh, about 90 percent lower than the national average emission rate, and far below the contemporaneous glidepath intensity rate suggested by the Science Based Targets initiative as necessary for industry to progress toward limiting average global temperature increase to 2C by 2050. Our generation fleet plays a significant role in zero-carbon electric generation in the U.S., providing over 12% of the zero carbon electric supply in the nation. The national electric sector emissions rate (885 pounds of CO₂ per MWh of electricity supplied) would be approximately four percent higher without Exelon's nuclear generation. In the PJM and New York grid areas where our plants are located, electric sector emissions rate would be approximately 15 to 20 percent higher without Exelon's nuclear generation. The emissions used for the numerator are Scope 1 emissions associated with our electric generation fleet. There are no associated Scope 2 emissions included in this calculation.

C7. Emissions breakdowns

C7.1

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

Yes

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO ₂ e)	GWP Reference
CO ₂	7,906,310	IPCC Fourth Assessment Report (AR4 - 100 year)
CH ₄	515,815	IPCC Fourth Assessment Report (AR4 - 100 year)
N ₂ O	12,740	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	5,101	IPCC Fourth Assessment Report (AR4 - 100 year)
SF ₆	52,551	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 CO ₂ emissions (metric tons CO ₂)	Gross Scope 1 methane emissions (metric tons CH ₄)	Gross Scope 1 SF ₆ emissions (metric tons SF ₆)	Total gross Scope 1 emissions (metric tons CO ₂ e)	Comment

Fugitives	8,828.67	20,423.84	2.304	577,076.86	This includes fugitive emissions from SF6 equipment and natural gas distribution systems, as well as refrigerant and use of bulk CO2. These emissions results across both our merchant generation company and our six regulated utilities.
Combustion (Electric utilities)	7,722,699.19	204.97	0	7,740,217.08	This include just fossil combustion associated with our electric generation fleet. Note that we do not operate vertically integrated utilities, so our generation is sold to the market and does not flow directly in our utilities delivery supply.
Combustion (Gas utilities)	34,146.2	0.65	0	34,182.57	This includes combustion emissions associated with our natural gas distribution system, as well as the Everett LNG plant.
Combustion (Other)	46,515.06	1.91	0	46,629.88	This captures auxiliary station combustion used for process or building heat and emergency back up.
Emissions not elsewhere classified	94,121.46	1.23	0	94,411.08	This breakdown represents mobile emissions across the corporation.

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Canada	240,663
United States of America	8,251,855

C7.3

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

By business division

C7.3a

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

Business division	Scope 1 emissions (metric ton CO ₂ e)
Exelon Generation - our electric generation company operating a mixture of nuclear, natural gas, and renewable generation assets producing grid supplied electric.	8,003,984
BGE - Baltimore Gas & Electric is a de-regulated electric and gas utility operating in Baltimore, Maryland and the surrounding area. This utility is not vertically integrated with our Exelon Generation business, purchasing electricity needed for its customers competitively off the open market or delivering electricity for other electricity retailers.	212,843
ComEd - ComEd is a de-regulated electric utility operating in the ComEd and southern IL region. This utility is not vertically integrated with our Exelon Generation business, purchasing electricity needed for its customers competitively off the open market or delivering electricity for other electricity retailers.	38,522
PECO - PECO is a de-regulated electric and gas utility operating in Philadelphia, Pennsylvania and the surrounding area. This utility is not vertically integrated with our Exelon Generation business, purchasing electricity needed for its customers competitively off the open market or delivering electricity for other electricity retailers.	168,838
PHI - Pepco Holdings is a grouping of utilities that includes Pepco in Washington DC, Delmarva Power and Gas in Wilmington, DE and Atlantic City Electric in Atlantic City, NJ. These utilities are not vertically integrated with our Exelon Generation business, purchasing electricity needed for its customers competitively off the open market or delivering electricity for other electricity retailers. All are electric distribution companies, and Delmarva also has a natural gas distribution system.	65,939
BSC / Constellation - Exelon Business Services is our corporate operations that support the other companies. Constellation is our competitive retail business. Both of these companies have GHG emissions primarily commercial building space.	2,390

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO₂e.

	Gross Scope 1 emissions, metric tons CO ₂ e	Comment
Electric utility activities	8,492,517	This includes fossil combustion for electric generation and auxiliary process equipment that directly support safe operation of these facilities, as well as refrigerant or bulk CO ₂ used as part of equipment operations or maintenance. This also includes SF ₆ fugitive emissions and vehicle fleet operations from our electric distribution utilities. Excluded emissions include Everett LNG facility and our combustion and fugitive emissions associated with our natural gas distribution systems. A portion of the vehicle fleet emissions also support natural gas distribution system activities, but this is not able to be broken out. It should be noted that our merchant electric generation fleet is not vertically integrated with our size electric distribution utilities.

C7.9

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

Decreased

C7.9a

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

	Change in emissions	Direction of change	Emissions value (percentage)	Please explain calculation
--	---------------------	---------------------	------------------------------	----------------------------

	(metric tons CO ₂ e)			
Change in renewable energy consumption	7,801	Decreased	0.05	Due to 'increased renewable energy consumption' implemented during the year, we were able to avoid fossil emissions from dispatch that could have been needed to satisfy grid demand. In 2020, Exelon purchased 25,805 MWh of addition renewable energy credits to reduced our market-based inventory as a result in expanded purchases of Renewable energy credits to cover the power that we consume. Our total Scope 1 and Scope 2 emissions in the previous year was 14,308,121 metric tons CO ₂ e, therefore we arrived at -0.05% through $(-7801/14308121) * 100 = -0.05\%$ (i.e. a 0.05% decrease in emissions)
Other emissions reduction activities	372,779	Decreased	2.61	Due to 'other emissions reduction activities' implemented during the year, Exelon reduced its emissions 372,779 mtCO ₂ e. Emissions reduction activities include building energy efficiency improvements; the retirement of three fossil fuel electric generation peaking plants, fleet vehicle electrification, biofuel blend increases and fuel efficiency / electrification improvements in our vehicle fleet; natural gas distribution system modernization; fuel switching for auxiliary boilers; replacement of first generation breakers to reduce SF ₆ use; implementation of conservation voltage reduction in our utility systems; and increased use of zero carbon nuclear generation for our own electric consumption. Using 372,779 metric tons of CO ₂ e reduced in 2020 by our emissions reduction projects, and our total Scope 1 and Scope 2 emissions in the previous year was 14,308,121 metric tons CO ₂ e, therefore we arrived at -1.25% through $(-372,779/14,308,121) * 100 = -2.61\%$ (i.e. a 2.61% decrease in emissions)
Divestment				Not Applicable
Acquisitions				Not Applicable
Mergers				Not Applicable

Change in output	941,419	Decreased	6.58	Due to 'changes in output' that occurred during 2020, emissions associated with our electric generation portfolio decreased. These emissions decreases are primarily related changes in dispatch calls for our plants to meet grid demand and are affect most by market prices and customer demand. The total decrease attributable to change in output in 2020 was 941,419 metric tons CO ₂ e. Our total Scope 1 and Scope 2 emissions in the previous year was 14,308,121 metric tons CO ₂ e, therefore we arrived at 6.58% through $(-941,419/14,308,121) * 100 = -6.58\%$ (i.e. a 6.58% decrease in emissions)
Change in methodology				Not Applicable
Change in boundary				Not Applicable
Change in physical operating conditions	15,975	Decreased	0.11	Due to 'changes in physical operating conditions' that occurred during 2020 emissions were slightly reduce. The physical operating conditions relate to customer use amount and patterns and system equipment performance which can be affected by weather and other external conditions. This conditions have the greatest impact on our Scope 2 electric system losses, also driven by grid demand, the emissions rate of generation on the grid and congestion. The total change in emissions attributable to these physical operating conditions is estimated at 15,975 metric tons CO ₂ e. With our total Scope 1 and Scope 2 emissions in the previous year was 14,308,121 metric tons CO ₂ e, we arrived at a decrease of 0.11% through $(15,975/14,308,121) * 100 = -0.11\%$ (i.e. a 0.11% decrease in emissions)
Unidentified				Not Applicable
Other				Not Applicable

C7.9b

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

Market-based

C8. Energy

C8.1

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

More than 45% but less than or equal to 50%

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	Yes
Consumption of purchased or acquired cooling	Yes
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	2,195,820	41,319,467	43,515,286
Consumption of purchased or acquired electricity		105,842	13,358,240	13,464,081
Consumption of purchased or acquired steam		722	722	1,444
Consumption of purchased or acquired cooling			354	354
Consumption of self-generated non-fuel renewable energy		40,779		40,779
Total energy consumption		2,343,162	54,678,782	57,021,944

C8.2b

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

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

C8.2c

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

Fuels (excluding feedstocks)

Natural Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

40,723,041

MWh fuel consumed for self-generation of electricity

40,454,342

MWh fuel consumed for self-generation of heat

268,699

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

55.78

Unit

kg CO₂e per million Btu

Emissions factor source

Regulated sources use EPA 40 CFR Part 98 Subpart C with site specific heat rates. Some larger sources use Continuous Emissions

Monitoring systems compliant with 40 CFR Part 75 and emissions from dual fuel units were apportioned based on percent of mmbtu burned.

Smaller sources use factors from The Climate Registry GRP; Table 12.9 Natural Gas Commercial. Exelon's whole inventory uses GWPs from AR4 to stay in alignment with EPA regulatory reporting programs.

Comment

No Comment

Fuels (excluding feedstocks)

Landfill Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

347,168

MWh fuel consumed for self-generation of electricity

347,168

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.27

Unit

kg CO2e per million Btu

Emissions factor source

Does not include supplemental biomass emissions for CO₂. Regulated units use EPA 40 CFR Part 98 Subpart C factors for CH₄ and N₂O with site specific heat rate for the landfill gas.

Comment

No Comment

Fuels (excluding feedstocks)

Wood Waste

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

1,809,134

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

70

MWh fuel consumed for self-cogeneration or self-trigeneration

1,809,064

Emission factor

1.24

Unit

kg CO₂e per million Btu

Emissions factor source

Does not include supplemental biomass emissions for CO₂. Regulated units use EPA 40 CFR Part 98 Subpart C factors for CH₄ and N₂O with site specific heat rate for the waste wood.

Comment

No Comment

Fuels (excluding feedstocks)

Fuel Oil Number 2

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

200,948

MWh fuel consumed for self-generation of electricity

149,504

MWh fuel consumed for self-generation of heat

51,445

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

70.52

Unit

kg CO₂e per million Btu

Emissions factor source

Regulated sources use EPA 40 CFR Part 98 Subpart C with site specific heat rates. Some larger sources use Continuous Emissions Monitoring systems compliant with 40 CFR Part 75 and emissions from dual fuel units were apportioned based on percent of mmbtu burned. Smaller sources use factors from The Climate Registry GRP; Table 12.9 No.2 Fuel Oil Commercial. Exelon's whole inventory uses GWPs from AR4 to stay in alignment with EPA regulatory reporting programs.

Comment

No Comment

Fuels (excluding feedstocks)

Fuel Oil Number 6

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

12,536

MWh fuel consumed for self-generation of electricity

12,536

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

62.8

Unit

kg CO₂e per million Btu

Emissions factor source

Regulated sources use EPA 40 CFR Part 98 Subpart C with site specific heat rates. Some larger sources use Continuous Emissions Monitoring systems compliant with 40 CFR Part 75 and emissions from dual fuel units were apportioned based on percent of mmbtu burned. Exelon's whole inventory uses GWPs from AR4 to stay in alignment with EPA regulatory reporting programs.

Comment

No comment

Fuels (excluding feedstocks)

Biodiesel

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

169,787

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

169,787

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

69.31

Unit

kg CO2e per million Btu

Emissions factor source

Biodiesel CO2 emissions are calculated and reported as optional biomass emissions separately from our Scope 1 and 2 GHG inventory. As reported here, this reflects direct Scope 1 emissions associated with a biodiesel blends used for our fleet vehicle operations estimated at an annual average of 15% (actual blends may range from 5% to 25% during the course of the year and various location). Our inventory does capture the actual blend quantities and calculates emissions from those values. The emissions factors use are per the EPA Emissions Factor Hub which aligns with TCR GRP. N2O and CH4 are calculated separately based on vehicle type and age, and are included as Scope 1 emissions and reflected in the aggregated factor presented.

Comment

No Comment

Fuels (excluding feedstocks)

Diesel

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

84,317

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

84,317

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

96.84

Unit

kg CO₂e per million Btu

Emissions factor source

This includes both stationary and mobile sources that are using straight diesel fuel, including emergency generators and mobile equipment. Our inventory uses the The Climate Registry protocol and associated emissions factors. The diesel portion of biodiesel blends are included under the biodiesel listing.

Comment

No Comment

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

28,201

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

28,201

MWh fuel consumed for self-cogeneration or self-trigeneration

0



Emission factor

71.96

Unit

kg CO2e per million Btu

Emissions factor source

This includes both stationary and mobile source that use straight gasoline. Our inventory uses the The Climate Registry protocol and associated emissions factors. Gasoline portion of ethanol blends are included under the biogasoline listing.

Comment

No Comment

Fuels (excluding feedstocks)

Biogasoline

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

117,690

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

117,690

MWh fuel consumed for self-cogeneration or self-trigeneration

0



Emission factor

63.31

Unit

kg CO2e per million Btu

Emissions factor source

Ethanol CO2 emissions are calculated and reported as optional biomass emissions separately from our Scope 1 and 2 GHG inventory. As reported here, this reflects the ethanol blends currently used by our fleet vehicles which include primarily E-10, but a small amount of E-85. Our inventory does capture the actual blend quantities and calculates emissions specifically from those values. The emissions factors used are per the EPA Emissions Factor Hub which aligns with TCR GRP. N2O and CH4 are calculated separately based on vehicle type and age, and are included as Scope 1 emissions and reflected in the aggregated factor presented.

Comment

No Comment

Fuels (excluding feedstocks)

Propane Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

5,386

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

5,386

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

40.61

Unit

kg CO₂e per million Btu

Emissions factor source

Regulated sources use EPA 40 CFR Part 98 Subpart C with site specific heat rates. Some larger sources use Continuous Emissions Monitoring systems compliant with 40 CFR Part 75 and emissions from dual fuel units were apportioned based on percent of mmbtu burned. Exelon's whole inventory uses GWPs from AR4 to stay in alignment with EPA regulatory reporting programs. Also includes some smaller mobile sources that are propane liquid fueled.

Comment

No Comment

Fuels (excluding feedstocks)

Jet Kerosene

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

16,693

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

16,693

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

33.8

Unit

kg CO2e per million Btu

Emissions factor source

Exelon calculates its emissions from its owned aircraft per IPCC Chapter 3 Energy, Civil Aviation which has different emission factors for take-off and landings verses cruise operations.

Comment

No Comment

Fuels (excluding feedstocks)

Kerosene

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

384

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

384

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

75.45

Unit

kg CO2e per million Btu

Emissions factor source

Smaller sources use factors from The Climate Registry GRP. Exelon's whole inventory uses GWPs from AR4 to stay in alignment with EPA regulatory reporting programs.

Comment

No Comment

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)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0



Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Exelon has exited all coal-fired generation assets as of 2017.

Lignite

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Exelon does not have this type of generation.

Oil

Nameplate capacity (MW)

1,104



Gross electricity generation (GWh)

21

Net electricity generation (GWh)

20

Absolute scope 1 emissions (metric tons CO2e)

27,974

Scope 1 emissions intensity (metric tons CO2e per GWh)

1,382.4

Comment

Includes only units fully oil fired. Emissions intensity is based off of Net GWh generation. Equity share ownership capacity as of December 31, 2020. Does not include dual fired units that may burn fuel oil part of the time - see below under other non-renewables below for dual-fired units.

Gas

Nameplate capacity (MW)

6,358

Gross electricity generation (GWh)

21,501

Net electricity generation (GWh)

19,341

Absolute scope 1 emissions (metric tons CO2e)

7,469,299

Scope 1 emissions intensity (metric tons CO2e per GWh)

386.19

Comment

Includes both Natural Gas CTs and CCGTs. Emissions intensity is based off of Net GWh generation. Equity share ownership capacity as of December 31, 2020. Does not include dual fired units that may burn natural gas part of the time - see below under other non-renewables below for dual-fired units.

Biomass

Nameplate capacity (MW)

50

Gross electricity generation (GWh)

370

Net electricity generation (GWh)

364

Absolute scope 1 emissions (metric tons CO₂e)

7,658

Scope 1 emissions intensity (metric tons CO₂e per GWh)

21.03

Comment

Emissions intensity is based on Net GWh generation and does not account for the additional steam benefits of this co-generation plant. Equity share ownership capacity as of December 31, 2020.

Waste (non-biomass)

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Exelon does not have this type of asset.

Nuclear

Nameplate capacity (MW)

18,880

Gross electricity generation (GWh)

163,057

Net electricity generation (GWh)

156,637

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Equity share ownership capacity as of December 31, 2020.

Fossil-fuel plants fitted with CCS



Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

While we did not have any grid connected generation assets with CCS in 2020, Exelon constantly seeks new technologies to provide customers with low-carbon energy solutions. One example is the NET Power project, located in LaPorte, Texas. The project uses Allam-Fetvedt Cycle technology to combust natural gas with pure oxygen and uses high pressure supercritical carbon dioxide (sCO₂) as a working fluid to drive a combustion turbine. The NET Power plant technology produces a high-quality, high-pressure CO₂ byproduct that is ready for pipeline transportation and storage. In many locations, we could sell this CO₂ for use in enhanced oil recovery, permanently sequestering the CO₂ and providing significant added value to future plants that use this technology. This technology offers higher density and competitive thermal efficiencies versus conventional steam- and gas turbine-driven power generation technologies without producing atmospheric emissions. Testing of the facility was conducted in 2019 and the facility was not operated in 2020. In November 2018, the NET Power project received the 2018 Breakthrough Technological Project of the Year award at the Abu Dhabi International Petroleum Exhibition and Conference (ADIPEC). ADIPEC is one of the world's largest and most influential oil and gas events. More information is available at www.netpower.com.

Geothermal

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Exelon does not own any geothermal assets.

Hydropower

Nameplate capacity (MW)

572

Gross electricity generation (GWh)

1,673

Net electricity generation (GWh)

1,673

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

This includes generation associated with Conowingo Hydroelectric plant. Per directions Muddy Run pumped storage facility has been omitted.

Wind

Nameplate capacity (MW)

746

Gross electricity generation (GWh)

2,222

Net electricity generation (GWh)

2,188

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Equity share ownership capacity as of December 31, 2020.

Solar

Nameplate capacity (MW)

613

Gross electricity generation (GWh)

1,123

Net electricity generation (GWh)

1,123



Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Equity share ownership capacity as of December 31, 2020.

Marine

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Exelon does not have this type of generation.

Other renewable

Nameplate capacity (MW)

65

Gross electricity generation (GWh)

75

Net electricity generation (GWh)

74

Absolute scope 1 emissions (metric tons CO2e)

317

Scope 1 emissions intensity (metric tons CO2e per GWh)

4.29

Comment

Includes landfill gas generation sites. These plants were retired during 2020.

Other non-renewable

Nameplate capacity (MW)

1,868

Gross electricity generation (GWh)

411

Net electricity generation (GWh)

372

Absolute scope 1 emissions (metric tons CO2e)

234,969

Scope 1 emissions intensity (metric tons CO2e per GWh)

630.9

Comment



These include generation facilities that can burn either natural gas or fuel oil and switch during the course of the year depending upon demand, fuel costs and fuel availability. Equity share ownership as of December 31, 2020.

Total

Nameplate capacity (MW)

30,191

Gross electricity generation (GWh)

190,454

Net electricity generation (GWh)

181,793

Absolute scope 1 emissions (metric tons CO2e)

7,740,217

Scope 1 emissions intensity (metric tons CO2e per GWh)

42.58

Comment

Because of the specific rules of the CDP reporting to exclude certain sources, there may be slight differences in how this compares to our other public disclosures. Specifically, Exelon does also have a 1070 MW capacity hydro pumped storage facility and a 10 MW battery storage facility that it typically includes in generation accounting in our Corporate Sustainability Report (CSR). Also Sections 8.2 through 8.2d specifically say to exclude nuclear generation in the totals, although some site power used at nuclear generation stations may come from that nuclear self-generation.

C-EU8.4

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

Yes

C-EU8.4a

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

Country/Region

United States of America

Voltage level

Distribution (low voltage)

Annual load (GWh)

176,599

Annual energy losses (% of annual load)

7

Scope where emissions from energy losses are accounted for

Scope 2 (market-based)

Emissions from energy losses (metric tons CO₂e)

4,241,098

Length of network (km)

252,526

Number of connections

9,100,000

Area covered (km²)

63,817

Comment

This includes the information of all Exelon Utilities combined as reported in the 2020 10-K. Exelon's utilities do own a small amount of high voltage electric transmission lines (17,963 km total across all utilities, less than 7%), which is included in this reporting summary. Number of connections shown is the number of electric customers served by our combined utilities in 2020. The percent line loss is the weighted average of the rates for each utility. Market-based emissions are based on the PJM 2019 Residual Emissions Rate.

C9. Additional metrics**C9.1**

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

C-EU9.5a

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

Primary power generation source	CAPEX planned for power generation from this source	Percentage of total CAPEX planned for power generation	End year of CAPEX plan	Comment
Nuclear	825,000,000	49	2021	All amounts rounded to the nearest \$25M and numbers may not sum due to rounding; CapEx projections as of Q4 2020 investor disclosures.
Solar	75,000,000	4	2021	All amounts rounded to the nearest \$25M and numbers may not sum due to rounding; CapEx projections as of Q4 2020 investor disclosures. Note that Exelon divested its distributed solar business in 2021 and not all of the CapEx plan for this category may have been executed prior to the close of that divestiture.

Other, please specify May include natural gas, wind, oil, hydro, and pumped storage	775,000,000	46	2021	All amounts rounded to the nearest \$25M and numbers may not sum due to rounding; CapEx projections as of Q4 2020 investor disclosures.
--	-------------	----	------	---

C-EU9.5b

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

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
Other, please specify includes all infrastructure investments combined across Exelon Utilities' BGE, ComEd, PECO, ACE, DPL and PEPCO	Exelon invested almost \$6.6 billion across our regulated utilities in 2020 and plans to invest approximately \$27 billion from 2021 through 2024. Most of Exelon's utility investments over the next four years will be in the electric distribution system, followed by the electric transmission and gas distribution systems. Of note, with the exception of ACE, Exelon's utilities have completed their investments in smart meter technology. We upgraded more than 10 million smart electric and gas meters across Exelon utilities, enabling a wide range of system and customer benefits. From an operational perspective, these new meters allow the utilities to remotely connect or disconnect service, provide enhanced information to help identify and respond to power outages and better monitor circuit voltage, saving customers money and avoiding excess GHG emissions. At the same time, these technologies give customers real-time insights into their energy usage and opportunities to save energy usage. Due to the	27,000,000,000	100	2024

	<p>structure of our industry, Exelon's utilities are generally unable to directly invest in and own power generation resources. However, our utilities use other means to enable renewable energy investment and deployment in our service territories by third parties. For example, we are deploying smart meter technology to integrate local generation and making other physical grid improvements. In 2020, Exelon's utilities enabled more than 150,000 customers to connect 1,995 MW of local renewable generation to the emerging smart grid. We continue to work on ways to assist customers in connecting local resources to the grid.</p> <p>Our utilities used 12.6 million RECs and alternative energy credits to meet state renewable energy requirements last year, supporting the deployment of renewable energy resources in the regions where we operate. Exelon's utilities are also evaluating potential actions to evolve their business models and state regulatory frameworks so they can play an even more significant and central role in enabling renewable energy integration into the emerging smart grid. Additional investments in our utilities aim to make our existing infrastructure more resilient.</p>			
--	---	--	--	--

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

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

Investment in low-carbon R&D	Comment
------------------------------	---------

Row 1	Yes	Note that large scale commercial deployment activities are not typically categorized within Exelon's R&D portfolio, but are mentioned here to respond to the spirit of the question categories and reflect the scale of Exelon's investments in these technologies. We responded with a focus on our Research, Development & Deployment efforts.
-------	-----	--

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

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

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Other, please specify Creating a smarter power grid	Large scale commercial deployment	61-80%		<p>Exelon investments in a smarter grid to enable an electric system that is reliable, resilient, responsive, more energy efficient and secure.</p> <p>Exelon's utilities have upgraded more than 10 million smart electric and gas meters over the last 10 years across the Exelon utilities, enabling a wide range of system and customer benefits. From an operational perspective, these new meters allow the utilities to remotely connect or disconnect service, provide enhanced information to help identify and respond to power outages and better monitor circuit voltage, saving customers money and avoiding excess GHG emissions. In 2020, this technology allowed Exelon's utilities to avoid over 410,000 truck trips, reducing costs and avoiding transportation GHG emissions. At the same time, these technologies give customers real-time insights into their energy usage and opportunities to save energy. We have also deployed smart meter technology to integrate local generation into the energy system and we continue to make other physical grid improvements. Exelon's utilities enabled more than 150,000 customers</p>

				<p>to connect 1,995 MW of local renewable generation to the emerging smart grid. We continue to assist customers in connecting local resources to the grid</p> <p>Exelon is also pursuing the large-scale commercial deployment of technology to support automated service restoration. These new smart electronic switches protect customers from service interruptions and automatically reroute power around problems such as damaged equipment. With over 17,000 of these modern devices in operation, and more being installed as part of our investment program, Exelon avoids millions of customer interruptions each year.</p> <p>(Note that large scale commercial deployment activities are not typically categorized within Exelon's R&D portfolio, but are mentioned here to respond to the spirit of the question categories and reflect the scale of Exelon's investments in these technologies.)</p>
Carbon capture and storage/utilisation	Full/commercial-scale demonstration	≤20%		<p>Exelon is investing in new technologies to provide customers with low-carbon energy solutions. One example of a full, commercial-scale demonstration project is the NET power project, located in LaPorte, Texas. The project uses Allam-Fetvedt Cycle technology to combust natural gas with pure oxygen and uses high-pressure supercritical carbon dioxide (sCO₂) as a working fluid to drive a combustion turbine. The NET Power plant technology produces a high-quality, high-pressure CO₂ byproduct that is ready for pipeline transportation and storage. In many locations, we could sell this CO₂ for use in enhanced oil recovery, permanently sequestering the CO₂ and providing significant added value to future plants that use this technology.</p> <p>This new technology achieved first fire at a 50 MW test facility in La</p>

				<p>Porte, Texas, that was developed by NET Power, Exelon Generation, McDermott and 8 Rivers Capital. In 2018, NET Power was recognized as an MIT Top 10 Breakthrough Technology and received the Breakthrough Technological Project of the Year award at the Abu Dhabi International Petroleum Exhibition and Conference. The NET Power test facility in La Porte is accessible to the public through a free online 360° virtual tour available on the NET Power website www.netpower.com</p>
Other, please specify Emerging Technologies	Applied research and development	≤20%		<p>Exelon continuously engages with emerging technologies as part of a strategic focus on advancing a culture of technology and innovation. Multiple strategic programs at Exelon involve applied R&D on emerging low-carbon technologies.</p> <p>The Exelon Partnership R&D Program invests in early-stage technology innovation by funding and collaborating on projects at leading research institutions, including Argonne National Laboratory, MIT, Northwestern University and the University of Illinois. Through the Partnership R&D program, Exelon engages the intellectual ecosystem that is developing technologies that will revolutionize the industry. Over four years, Exelon has screened more than 100 technology ideas through its R&D program and invested in 22 transformative projects.</p> <p>Application areas range from advanced sensor engineering to computational modelling for electric vehicle-grid integration. Through</p>

				<p>this program, Exelon is also partnering with the Department of Energy to install a hydrogen electrolyzer at a nuclear power plant. The project will demonstrate dynamic operation of an electrolyzer in a manner that paves the way for at-scale, electricity price-responsive, hydrogen production.</p> <p>Through a strategic partnership with Volta Energy Technologies, Exelon is actively investing in emerging energy storage technologies with transformational solutions relevant for the grid. Exelon has invested in four such technologies, including a materials innovation that will enable the commercialization of non-flammable lithium-ion batteries.</p> <p>Additionally, Exelon invests and actively participates in applied R&D through Electric Power Research Institute (EPRI) programs across many topic areas in low-carbon technologies.</p>
--	--	--	--	--

C10. Verification

C10.1

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

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

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

Verification or assurance cycle in place

Annual process


Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

 Exelon CY2020_Scope 1&2 Emissions Assurance Statement.pdf

Page/ section reference

whole document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process


Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

 Exelon CY2020_Scope 1&2 Emissions Assurance Statement.pdf

Page/ section reference

whole document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process


Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

 Exelon CY2020_Scope 1&2 Emissions Assurance Statement.pdf

Page/ section reference

whole document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

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

Verification or assurance cycle in place

Annual process


Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 Assurance Statement_CY2020 Exelon Scope 3 emissions rev.pdf

Page/section reference

Page 2 - Fuel-and-energy-related activities - CNE electricity sale and Fuel and energy related activities - utility delivered electricity (totals have been summed for entry into CDP)

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Business travel



Verification or assurance cycle in place

Annual process


Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 Assurance Statement_CY2020 Exelon Scope 3 emissions rev.pdf

Page/section reference

Page 2 - Employee business travel

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Upstream leased assets

Verification or assurance cycle in place

Annual process

Status in the current reporting year


Complete



Type of verification or assurance

Limited assurance

Attach the statement

 Assurance Statement_CY2020 Exelon Scope 3 emissions rev.pdf

Page/section reference

Page 2 - Upstream leased assets

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Use of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year


Complete

Type of verification or assurance

Limited assurance

Attach the statement



 Assurance Statement_CY2020 Exelon Scope 3 emissions rev.pdf

Page/section reference

Page 2 - Use of sold products - utility electricity delivered and Use of Sold Products - use of CNE natural gas sales to customers (these totals have been summed for entry into CDP)

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Processing of sold products

Verification or assurance cycle in place

Annual process


Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 Assurance Statement_CY2020 Exelon Scope 3 emissions rev.pdf

Page/section reference

Page 2 - Services provided equipment operated for other (combustion, optional OCDs and supplemental biomass)

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100


C10.2




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

Yes

C10.2a


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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Other, please specify Electric Generation Emissions Intensity Rates	ISO 14064-3, The Climate Registry General Reporting Protocol Version 3 (May 2019) for the GHG Data, The Climate Registry Electric Power Sector Protocol (EPS) Version 2.1 (June 2009) for the GHG and net generation data; EPS Protocol Updates and Clarifications (December 2020)	Verification of the CO ₂ , NO _x and SO ₂ emissions from our owned generation per MWh that our electric generation portfolio delivers to the grid.  1
C12. Engagement	Other, please specify Supplier Specific Electric Generation Emissions Intensity Rates	ISAE 3000 and ISAE 3410, Industry Best Practices, Constellation New Energy Supplier Specific Emissions Factor Process Document, Revision 5 (May 2021); WRI	Verification of our retail electric company Constellation New Energy's supplier specific electricity emission factors (lbs CO ₂ /MWh) by state (based on contractual supply) in

		GHG Protocol Scope 2 Guidance, State Renewable Portfolio Standard Requirements	support of their market-based Scope 2 reporting.  ²
C12. Engagement	Other, please specify Retirement of Emissions Free Energy Certificates for customers that specified them in their electric purchases.	ISAE 3000 and ISAE 3410, Industry Best Practices, Constellation New Energy's Carbon-Free Product EFEC Retirement Process Document, PJM Generation Attribute Tracking System	Statement covers retirements for our customers who elected to retire Emissions Free Energy Credits to cover their electricity use (excerpt of final statement omitted specific customer names).  ³
C4. Targets and performance	Other, please specify Emissions Free Energy Credits retired to cover our own electricity uses as applied to our market-based GHG emissions accounting	ISAE 3000 and ISAE 3410, Industry Best Practices, Constellation New Energy's Carbon-Free Product EFEC Retirement Process Document, PJM Generation Attribute Tracking System	Statement covers PJM Emissions Free Energy Credit retirements applied to our own corporate GHG emissions accounting program  ⁴

 ¹Exelon CY2020_Emission Intensities Statement.pdf

 ²2020 Exelon Supplier Specific EFs ASt-ASRapproved-FINAL.pdf

 ³2020 CNE Carbon-Free Verification w-out Customer Listing-EXPCQ3593.pdf

 ⁴2020 Exelon Corporate GHGs-ASRapproved.pdf

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)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

RGGI - ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

RGGI - ETS

% of Scope 1 emissions covered by the ETS

8

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2020

Period end date

December 31, 2020

Allowances allocated

0

Allowances purchased

669,211

Verified Scope 1 emissions in metric tons CO₂e

669,211

Verified Scope 2 emissions in metric tons CO₂e

0

Details of ownership

Facilities we own and operate

Comment

Represents 2020 CO₂ emissions covered by RGGI rules that will be covered by our RGGI compliance strategy.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Exelon supports and advocates for more meaningful prices on carbon emissions. For our own emitting facilities, Exelon operates in compliance with those regulations where they exist and apply to our facilities. The RGGI program covers fossil fuel electricity generation facilities larger than 25 MW in participating states, which includes Exelon's Mystic and Medway generation stations. RGGI requires that we surrender allowances (1 allowance permits 1 short ton of emissions) equal to our facilities' CO₂ emissions over the three-year control or compliance period. The current compliance cycle (fourth control period) is for 2018 through 2020. Compliance is evaluated at the end of each three-year control period, with interim requirements. Exelon purchases allowances based on estimated emissions from our generation planning process and carries forward any additional allowances that are not needed for meeting actual obligations, which are determined by the actual year end emissions resulting from each plant's operation. We purchase our compliance needs in the auctions or through the market as needed to meet the regulatory deadlines. The overall effect of RGGI on Exelon is positive since our generation fleet is largely emissions-free and therefore, RGGI results in a competitive advantage for our generation business in the RGGI region.

C11.2

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

No

C11.3

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

Yes

C11.3a

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

Objective for implementing an internal carbon price

Navigate GHG regulations
Other, please specify
properly value business decisions

GHG Scope

Scope 1

Application

Exelon typically models scenarios based on a combination of factors including fuel prices, electricity demand, policies (state and federal), and supply changes. In markets where a carbon price is effective in an existing program, Exelon uses a carbon price that is based on market forwards in its analysis to guide our business decisions for our existing electric generation projects and to help guide the implementation of our strategic plan.

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

Variance of price(s) used

In regions with existing GHG policies, Exelon uses market forward prices for emissions allowances. In 2020, the Regional Greenhouse Gas Initiative (RGGI) carbon market prices ranged between \$5-\$8 per ton and in the California Cap and Trade program prices ranged between \$14-\$20 per ton.

Type of internal carbon price

Other, please specify

Market forward prices for existing carbon markets

Impact & implication

Exelon generates more than twice as much carbon-free electricity as any other company in the U.S. Regarding internal decision-making, we conduct near- and long-term modelling to inform our electric market positions, generation portfolio management, generation investment, and our strategic plan. Cross functional teams across the organization identifies and regularly reviews key market drivers, including regulatory or policy influences such as a carbon price, and uses them in our analyses to capture a range of plausible future outcomes and develop our overall generation strategy. Regulation of carbon is one of many considerations in our planning analyses and the impacts of carbon are weighed with other issues that may affect market conditions.

C12. Engagement

C12.1

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

- Yes, our suppliers
- Yes, our customers
- Yes, other partners in the value chain

C12.1a

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

Type of engagement

Compliance & onboarding

Details of engagement

Included climate change in supplier selection / management mechanism

Climate change is integrated into supplier evaluation processes

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

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

2

Rationale for the coverage of your engagement

Exelon is active in industry and government efforts to improve supply chain operations and cognizant of the influence we can have toward sustainable practices given our position as a large purchaser. We evaluate and monitor all of our suppliers for potential environmental impacts as part of entry into our e-sourcing process. Our rationale for targeting all suppliers is that we need to understand our supply chain and how it may either impact the environment or be affected as a result of new environmental regulations or requirements. This engagement is accomplished when any supplier is invited for a bid, as they must answer the screening questions on our e-sourcing tool. Based on their answers, suppliers receive a score weighted by price, quality, safety, diversity and environmental performance. The standard set of environmental questions on every RFP are meant to capture risks associated with environmental compliance and climate change issues prior to contracting. The questions also help to inform additional supplier engagement that may be needed for certain critical supply chain items with regard to managing environmental risk or climate change resilience.

We advance sustainability in our supply chain through both our direct relationships with our suppliers and our engagement with the Electric Utility Industry Sustainable Supply Chain Alliance (EUISSCA) of which Exelon was a founding member. EUISSCA, or "The Alliance", is an organization of utilities and suppliers working together to advance sustainability best practices in utility supply chain activities and supplier networks. Exelon continues to pursue progress against the Alliance's sustainability maturity model by creating more rigor around the scoring of sustainability aspects of supplier proposals in bids and by recognizing top suppliers with awards related to their environmental performance. As part of the Alliance, Exelon works with 15 other utilities to drive sustainability through the development of voluntary standards for products, as well as the coordination of supplier sustainability performance surveys, educational materials for buyers and suppliers and speaking engagements at major supply chain events. In 2019, Exelon's Chief Supply Officer became Chair of the EUISSCA executive committee, and in 2020 we supported the development of a Scope 3 Hot Spot assessment tool for member utilities.



Impact of engagement, including measures of success

Success of this engagement is measured by the number of suppliers responding to these questions each year as part of this process. We view the effort taken by suppliers to complete the questions as part of the awareness building process, setting the stage for the high environmental standards set by Exelon. Our questionnaire is completed by approximately 2,000 unique suppliers each year as part of various bid events (note that suppliers already in the system or under longer term contracts do not always need to complete the survey for each project the work on with us).

As a result of our supplier engagement efforts, we have also implemented a number of best practices and communicate high level environmental expectations in contract language and in a suppliers' code of conduct. For example, when applicable, we specify in contracts that vendors take back recyclable materials and properly dispose of waste products. All Exelon business partners, including our suppliers are required to comply with Exelon's Code of Business Conduct, which establishes requirements for how Exelon and our business partners will conduct their business operations. All suppliers must meet Exelon's standards, including environmental performance review. At Exelon, we make a concerted effort to minimize potential impacts of the goods and services we procure and to motivate our suppliers to improve their operational performance.

In 2020, Exelon worked with the Alliance to develop a Hot Spot analysis for Purchased goods and services which allows Exelon to now estimate its Scope 3 emissions for this category and target higher priority categories such as Construction Services.

Comment

No Comment

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Other, please specify

Collect and review business continuity planning, including potential impacts from climate change

% of suppliers by number

1

% total procurement spend (direct and indirect)

51

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

1

Rationale for the coverage of your engagement

Exelon employs a risk management process developed by our Supply and Enterprise Credit Risk Management team to identify, communicate and mitigate risks. Our semiannual review of all suppliers determines supplier criticality to our business. This team conducts in-depth risk reviews of our critical suppliers, considering how essential the supplier is to Exelon's business functions and company objectives (such as diversity and sustainability), probability of a risk event, the potential severity of impacts and our resilience to a disruption through alternate suppliers. Our rationale is to make sure we understand what elements of our supply chain could have the great impact on our operations if disruption were to occur. The results of these risk reviews are regularly communicated to management.

In 2020, Exelon conducted its semiannual detailed risk assessment that identified 93 critical Tier 1 suppliers, representing 51 percent of total spend. It is this group of suppliers that we target for more in depth engagement around business continuity issues, including potential impacts associated with climate change.

Impact of engagement, including measures of success

As part of this process, we identified one high-risk critical Tier 1 supplier and implemented risk mitigation strategies with these suppliers. Of the 93 critical Tier 1 suppliers, eleven percent were audited in 2020 and five percent were on a supplier watchlist or performance improvement plan. Exelon actively works with all suppliers on a watchlist or with a performance improvement plan to implement corrective action strategies to remediate any performance issues.

In 2020, Exelon worked with the Alliance to develop a Hot Spot analysis for Purchased goods and services which allows Exelon to now estimate its Scope 3 emissions for this category and target higher priority categories such as Construction Services.

Comment

No Comment

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change

Other, please specify

new supplier survey tool designed to educate suppliers on environmental best practices and benchmark their sustainability progress

% of suppliers by number

1

% total procurement spend (direct and indirect)

51

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

1

Rationale for the coverage of your engagement

In 2018, EUISSCA launched The Sustainability Project (TSP), a new supplier survey tool designed to educate suppliers on environmental best practices and benchmark their sustainability progress. As a member of EUISSCA, Exelon participated in the piloting of the project. The survey tool has customized questions for over 23 supplier types that ask a variety of questions, from the details of a supplier's operational controls to the level of leadership engagement and commitment. It also offers benchmarking which enables suppliers to plan for improved performance in the future and can be used for sharing best practices.

Exelon targeted 93 of its critical Tier I suppliers (as identified by our risk profile model), representing approximately 51 percent of our spend, to take the TSP Survey in the fall of 2020. We are using the results of the survey to help us further identify sustainability risks associated with our current suppliers and potential future business partners.

Impact of engagement, including measures of success



Exelon EUISSCA/TSP Supplier Survey Results for 2020 are as follows: 107 Exelon suppliers were targeted to complete the TSP Survey. Of those, 80 suppliers completed the Survey, representing 76%; 43 suppliers completed only the Survey and Assessment Phase, representing 40%; and 37 suppliers completed the Survey, Assessment Phase and Planning Phase, representing 35%.

Of the suppliers invited to participate, 27 did not. Those that did not have been contacted to confirm Exelon's expectation that they participate. The survey, which is tailored to different categories of suppliers, focuses on an initial assessment of performance and programs, with benchmarking and other tools provided to aid in the identification and implementation of performance improvement opportunities. This effort helps Exelon to work collaboratively with its suppliers to advance sustainability performance in the most relevant areas for each type of supplier and the services or materials that they are providing to Exelon. Exelon is currently in the process of reviewing the results more fully as part of the pilot evaluation process.

Comment

No Comment

C12.1b

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

Type of engagement

Education/information sharing

Details of engagement

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

% of customers by number

100

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

14

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

Exelon's retail electric sales organization, Constellation New Energy began to provide Supplier specific emissions factors and enhanced communications around its voluntary renewable energy credit (REC) and Emissions Free Energy Credits (EFECs) with its Commercial and Industrial (C&I) customers in response to increased interest in GHG emissions reduction and renewable energy commitments associated with the Paris Agreement. The engagement was first extended to all C&I customers, making available third-party verified supplier specific emission factors to assist with Scope 2 accounting, as well as assistance for customers in understanding the new WRI Scope 2 reporting and how to incorporate our new clean energy products such as Carbon-Free (nuclear supply) and CORE (easy access renewable packaged PPAs) that can help them to reach their climate change goals. CNE is now exploring how these products can also be offered to other customer classes. This program highlights Exelon's low carbon generation portfolio and shows our customers how our product can assist in their efforts to reduce GHG emissions. These efforts relate directly to Upstream Energy related emissions associated with the purchased power needed to fulfill our customer load commitments. Upstream Energy from Purchased Electric from our Constellation retail organization related Scope 3 emissions accounts for 14% of the emissions reported in C6.5.

Impact of engagement, including measures of success

Constellation connects customers with clean energy through RECs and EFECs. New Mix® wind RECs are sourced from renewable generating facilities within the United States. Each REC represents the positive environmental attributes of one MWh of electricity generated by a renewable power plant and is retired on behalf of customers wishing to promote their environmental commitment. The purchase of RECs supports the operation and development of facilities that generate clean, renewable energy. EFECs are created to represent the emission-free attributes of generating sources (such as nuclear) as defined by PJM, that do not directly emit greenhouse gases from combustion. When customers purchase a carbon-free electricity plan from Constellation, electricity they purchase is matched with EFECs from those energy sources providing carbon-free electricity. Constellation retired 5.2 million RECs and 11.4 million nuclear Emission-Free Energy Certificates (EFECs) for customers in 2020.

Biogas is also an emerging renewable resource for businesses with aggressive sustainability goals. It can replace traditional natural gas supplies once it is processed to remove non-methane compounds. Biogas becomes renewable natural gas (RNG) once cleaned and injected into a commercial pipeline system and can be used to produce heat and electricity as well as power vehicles. Constellation works with compressed natural gas (CNG) fueling stations to make biogas available as vehicle fuel and to generate renewable vehicle fuel credits such as Renewable Identification Numbers (RINs) and state-level Low-Carbon Fuel Standard (LCFS) credits. Constellation is currently contracted for the supply of RIN/LCFS qualified RNG from more than 20 biogas production facilities with end-delivery to more than 100 end-use customers



throughout the United States, including CNG stations. In these projects, Constellation provides services related to physical natural gas receipt, nomination and balancing onto the commercial pipeline system, storage services during a project registration period to be eligible for RIN/LCFS credits, pathway services for end-demand customers and CNG stations and RIN/LCFS credit monetization for revenue sharing to both the biogas producers and CNG station end-users.

Type of engagement

Education/information sharing

Details of engagement

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

% of customers by number

100

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

14

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

Constellation works with customers on tailored solutions to achieve their sustainability goals while managing their energy and operational costs. For many large-scale efficiency projects, the cost of investments in infrastructure improvements are recovered through the ensuing energy cost savings. Constellation uses audits, engineering, design, construction management and long-term monitoring and analytics to design and implement projects for healthcare, education and government customers, among others. We optimize assets and leverage faster payback measures, such as lighting improvements, to help pay for slower payback investments such as chillers or distribution systems.

Impact of engagement, including measures of success

In 2020, Constellation energy efficiency projects helped customers conserve more than 290,000 MWh of electricity and more than 1.3 million British thermal units of natural gas, helping to avoid more than 280,000 metric tons of CO₂e emissions. The Efficiency Made Easy® program is one example of Constellation's service offerings geared toward small- and mid-size business customers where funding constraints are often a barrier to critical efficiency improvements. Through this program, customers save money and reduce energy consumption by incorporating the



cost of efficiency projects into an energy supply agreement without the need for upfront capital. Since 2011, Constellation has funded over \$350 million in energy efficiency projects for more than 500 customers. Those customers have collectively saved approximately 393,000 MWh of electricity and avoided more than 278,000 metric tons of carbon emissions.

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

Every year, we facilitate specialized forums with individual stakeholder groups to discuss their sustainability interests and concerns to incorporate in our business and sustainability planning. For example, since 2008 we have engaged with Ceres, a nonprofit organization advocating for sustainability leadership. Ceres provides an external perspective on key issues to help Exelon advance our sustainability performance. As part of the engagement, Ceres convened a group of external stakeholders and Exelon participants in April 2020 to participate in a structured feedback session. The session focused on talking with investors about their expectations for sustainability and ESG performance and disclosures. A summary of the resulting discussion is available on our website. Our April 2021 stakeholder engagement session with Ceres focused on the topic of Climate Justice.

To explore avenues for improving sustainability performance as measured by the Dow Jones Sustainability Index (DJSI) scorecard, we engaged with S&P Global, an international investment company with a specific focus on sustainability investments, whose analysis forms the basis for DJSI scores. We also engaged with CDP on our disclosure results to better understand scoring and areas for improvement in the areas of climate change, water, and supplier disclosures. Other engagement included our response to the Climate Action 100+ benchmark initiative and discussions with our lead Climate Action 100+ investor, California Public Employees' Retirement System. Our operating companies also participated in dozens of stakeholder engagement activities related to specific local issues. In recent years, investors have sought more information about climate risk management, human capital and social equity issues, broader ESG issues and, most recently, support for communities and employees through the COVID-19 pandemic. In response, Exelon engaged with more than 20 institutional investors in 2020 representing over 33 percent of our market capitalization. We will continue engaging with investors and communities in the coming years to ensure that our sustainability strategies and disclosures align with the needs of our stakeholders. The collective engagement efforts of our 12 owned nuclear sites resulted in 29 strategic tours, 102 speakers' bureaus and 66 community outreach events, reaching more than 53,000 community members and other key stakeholders during 2020. Our utilities provide extensive safety information on their websites.

Exelon continues to develop more meaningful relationships with our stakeholders. To build these relationships, we must understand stakeholders' expectations and how to meet them. In recent years, Exelon has conducted comprehensive research, using extensive qualitative (focus groups and in-

depth interviews) and quantitative (online and telephone surveys) research to explore and validate stakeholder perspectives. Research has included key stakeholders, including customers, investors/analysts, communities, employees and policy leaders. One of the most important insights from the research is that the social and environmental expectations of our stakeholders are greater for us than for other consumer product companies. This is due to both our unique relationships with our customers and communities, as well as the “universality” of our utilities business. Our stakeholders view us as both a business that serves individual customers and as a public service to our communities. Therefore, we must balance the changing needs of customers with a commitment to address social and environmental challenges. The research identified four critical pillars to building deeper stakeholder relationships. Each pillar contains more specific, prioritized themes that contribute to meeting expectations: Customer Centricity; Health, Safety and Environment; Innovation Agenda; and Corporate Stewardship.

Through regular engagement with our stakeholders, we improve our understanding of emerging trends affecting our business and address stakeholder needs and concerns. We use stakeholder feedback to inform our sustainability strategy and business plans.

C12.3

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

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

C12.3a

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

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Other, please specify	Support	Direct communication with legislators and regulators, as well as broadly through our investor and stakeholder materials such as our Corporate	Exelon believes that a federal policy that places a value on carbon emissions would be the most efficient solution. Incorporating the cost of carbon emissions into the generation

Market-based Program to Value Carbon Meaningfully		Sustainability Report and other sustainability disclosures.	unit dispatch would be the most fair and cost efficient approach. This would allow for the most cost-efficient solutions to be selected before more expensive carbon abatement options. Until such time as markets reflect the cost of carbon, Exelon supports state programs, such as the Clean Energy Standard in New York and the Zero Emissions Standard in Illinois, that compensate nuclear units for their environmental attributes, similar to how renewables are compensated for their zero emissions attributes. As one example of our work to promote a sensible national approach to mitigating climate change, in 2019, Exelon joined the Climate Leadership Council (CLC) as a founding member with ongoing involvement through 2020. The objective of the CLC is to implement a national carbon dividend system to meaningfully reduce nationwide emissions while protecting the most vulnerable citizens. Consistent with our longstanding support for meaningful climate policy, our policy engagement over the course of 2021 has focused on new opportunities to encourage both legislative and regulatory approaches to reduce greenhouse gas emissions. This activity falls outside the scope of the relevant reporting period and therefore is not detailed here.
Clean energy generation	Support	Direct communication with legislators and regulators, as well as broadly through our investor and stakeholder materials such as our Corporate Sustainability Report and other sustainability disclosures.	Addressing the climate crisis is one of the single greatest things we can do to ensure that our communities remain strong, safe and prosperous. Volatile weather is fast becoming the norm in our communities and the physical stress and damage to energy infrastructure is something one can already see and measure. Policy and market designs must recognize the value of zero-carbon generation. Solutions must be affordable for all customers. Select examples of what we are doing include: <ul style="list-style-type: none"> • We support state clean energy programs that maintain and

			<p>expand emissions-free generation.</p> <ul style="list-style-type: none"> • We participate in Federal and state efforts to cap or price carbon (RGGI, NYISO) to drive lower emission generation across states and regions. • We participate in state utility rate design proceedings to seek the right incentives and structures to support energy efficiency and reduction of GHG emissions via electrification. <p>Consistent with our longstanding support for meaningful climate policy, our policy engagement over the course of 2021 has focused on new opportunities to encourage both legislative and regulatory approaches to reduce greenhouse gas emissions. This activity falls outside the scope of the relevant reporting period and therefore is not detailed here.</p>
<p>Other, please specify</p> <p>Empowering Customers</p>	Support	<p>Participation in proceedings at our Public Utility Commissions and working with our jurisdictions on proper rate design.</p>	<p>Customers must have the ability to choose clean energy from their suppliers. Market and regulatory structures need to evolve to allow customers the option to participate in a two-way power system with distributed energy resources, while continuing to reliably and affordably obtain power from the grid on demand. Select examples of what we are doing include:</p> <ul style="list-style-type: none"> • Exelon Utilities participate in grid modernization proceedings at our commissions to advance options of interest to our customers, such as electric vehicles, distributed energy, microgrids and energy storage. • Exelon works with our jurisdictions on rate designs to ensure fairness for all customers as usage of the grid evolves over time, including protections for low- and moderate-income customers. • Exelon Utilities is guided by a vision of Creating a Smarter Power Grid where we create platforms to connect energy and other services to expand customer choice, create a smarter

			<p>energy grid and enhance customers' lives.</p> <p>Consistent with our longstanding support for meaningful climate policy, our policy engagement over the course of 2021 has focused on new opportunities to encourage both legislative and regulatory approaches to reduce greenhouse gas emissions.</p> <p>This activity falls outside the scope of the relevant reporting period and therefore is not detailed here.</p>
Adaptation or resilience	Support	Working with states on policy development, and engaging Federal and State agencies in the development of tools and guidance on best practices for resiliency.	<p>Families and businesses require a power system that reliably delivers 24/7 electricity. Wholesale power markets need to evolve to select resources based on their true cost, including their ability to withstand fuel supply disruptions. Enhancing the resilience of electric infrastructure against severe weather and other threats is essential. Select examples of what we are doing include:</p> <ul style="list-style-type: none"> • Our utilities are working with states to support policies focused on enhanced reliability and resilience. • Exelon supports the development of industry and regulatory guidance on best practices for resilience-based design standards and planning criteria. • We are leading the industry in work with EEI and EPRI to engage Federal and State agencies in developing tools to assess benefits of resilience-based investments.
Other, please specify Market Design		Working with state agencies, Federal Energy Regulatory Commission (FERC) and independent system operators (ISOs), such as PJM, ERCOT, ISO-New England and NYISO, as well as customers to design electric markets that can help meet clean energy policy objectives.	<p>Wholesale and retail energy market designs must enable efficiently procured and reliable energy for customers, while at the same time recognizing state environmental preferences and allowing served communities to achieve their environmental and public policy priorities for energy. Electric markets, designed correctly, can play a critical role in helping states meet their clean energy policy objectives. Select examples of what we are doing include:</p>

			<ul style="list-style-type: none"> • Exelon is working with states and customers on adapting to potential changes in capacity market rules that would otherwise undermine state clean energy objectives and increase costs to consumers. • Exelon continues to work with the Federal Energy Regulatory Commission (FERC) and independent system operators (ISOs), such as PJM, ERCOT, ISO-New England and NYISO, to support energy market price reforms to more accurately reflect the value of all units serving load, including their environmental benefits. • Exelon is developing additional opportunities for industrial and commercial customers to procure clean and affordable energy. Consistent with our longstanding support for meaningful climate policy, our policy engagement over the course of 2021 has focused on new opportunities to encourage both legislative and regulatory approaches to reduce greenhouse gas emissions. This activity falls outside the scope of the relevant reporting period and therefore is not detailed here.
--	--	--	--

C12.3b

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

Yes

C12.3c

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

Trade association



Edison Electric Institute

Is your position on climate change consistent with theirs?

Mixed

Please explain the trade association's position

Global climate change presents one of the biggest energy and environmental policy challenges this country has ever faced. EEI member companies are committed to addressing the challenge of climate change and have undertaken a wide range of initiatives over the last 30 years to reduce, avoid or sequester GHG emissions. Policies to address climate change should seek to minimize impacts on consumers and avoid harm to U.S. industry and the economy.

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

Exelon consistently supports an effective price on carbon emissions and use of competitive markets to value carbon equally across all technologies and would do so in this forum as well. Exelon supports regulatory efforts to price carbon emissions properly. Also, in conjunction with EEI, we support efforts to better inform and evolve infrastructure standards for resilience to extreme events (including cyber, physical attacks and natural disasters). We also support the development of a common methodology for applying details of potential impacts to utility infrastructure planning given the uncertainty of future projections and potential scenarios and the need to balance cost of investment with public benefits achieved. See our public policy discussion for more information on our efforts with peer and industry groups and state and federal agencies. From July 2019 through June 2020, our CEO Chris Crane was the Chairman of EEI and established two strategic initiatives. The first focused on workforce development and the second on grid resilience and the value of proactive, resilience-based investment on behalf of our customers.

Trade association

Nuclear Energy Institute

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position



Reducing carbon dioxide emissions, while fostering sustainable development, is a major global challenge of the 21st century. Nuclear energy is a vital source of electricity that can meet the nation's growing energy needs with a secure, domestic energy supply that also protects our air quality.

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

Exelon consistently supports an effective price on carbon emissions and use of competitive markets to value carbon equally across all technologies and would do so in this forum as well. Exelon supports regulatory efforts to price carbon emissions properly and has encouraged NEI to be more vocal on these issues.

Trade association

Center for Climate and Energy Solutions

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Center for Climate and Energy Solutions is as a non-profit, non-partisan, and independent organization dedicated to providing credible information, straight answers, and innovative solutions in the effort to address global climate change. The Center engages business leaders, policy makers, and other key decision makers at the international, national, regional, and state levels to advance meaningful, cost-effective climate policy and action.

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

Exelon consistently supports an effective price on carbon emissions and use of competitive markets to value carbon equally across all technologies and would do so in this forum as well. Exelon supports regulatory efforts to price carbon emissions properly.

Trade association

U.S. Chamber of Commerce

Is your position on climate change consistent with theirs?

Mixed

Please explain the trade association's position

The Chamber's "Approach to Climate Change" states that, inaction on climate is not an option. The U.S. has led the world in greenhouse gas emissions reductions, but more must be done, and we welcome the Biden Administration's efforts to restore international leadership on this critical issue. We are calling for reducing emissions as low as we can as fast as we can, while ensuring that any national targets and timetables are realistic, achievable, appropriately account for U.S. economic interests and work to address impacts to trade-exposed, hard-to-adapt and energy intensive sectors. We are hopeful that targets are developed through a thoughtful and collaborative effort that identifies a clear path to achievement and garners the support of businesses, consumers, and other stakeholders necessary to ensure political durability.

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

Exelon has worked with other Chamber members to adopt a more forward-looking and constructive position on climate change, and the Chamber has come out in support of market-based approaches to accelerate greenhouse gas emissions reductions. The Chamber also outlined their "Principles and Priorities" for the Biden Administration to consider as it developed a revised Nationally Determined Contribution (NDC) under the Paris climate agreement. While the Chamber's positions do not completely align with Exelon's position on climate issues, we continue to work to encourage constructive engagement that will result in Chamber support for specific legislative, regulatory, or executive actions to meaningfully address the climate crisis.

C12.3d

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

No

C12.3e

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

Each year Exelon produces a comprehensive Corporate Sustainability Report that brings together the details of our business with the material issues of sustainability. Exelon's commitment to sustainability is central to our mission of providing clean, reliable, affordable and innovative energy products and



services. Our operational excellence and environmental stewardship values drive us to conduct business in a way that is sustainable for our customers, our employees and the communities in which we operate.

The Global Reporting Initiative (GRI) defines key issues that reflect an organization's significant social, governance, economic and environmental impacts or substantively influence its stakeholders. In 2020, we reviewed the 23 issues included in our 2019 report and their definitions. We determined the continued relevance of the issues to Exelon and our stakeholders based on our strategy and objectives, peer reviews, stakeholder engagement and external indices and frameworks. All findings and results underwent review by the Corporate Sustainability Report Editorial Board, comprised of executives from Exelon's operating companies and business services organization. Updates to our issues included the addition of COVID-19 support for employees and communities, our enhanced focus on workforce development and empowerment and clarification of Exelon's commitment to engage with industry associations in support of strong climate change action. In particular, we reviewed:

- Customer, community, policy leader, investor and employee engagements and surveys and requests for sustainability information;
- Edison Electric Institute (EEI) surveys of large utility investors and ESG communications;
- Electric Power Research Institute (EPRI) Priority Sustainability Issues for the North American Electric Power Industry;
- Exelon's Enterprise Risk Heatmap;
- A media review of the company and our sector;
- Sustainability disclosure and rating frameworks, like GRI, SASB, CDP, TCFD, DJSI, MSCI and Sustainalytics; and
- Our Ceres stakeholder engagement summary.

We continue to align our business with global sustainability initiatives, particularly the United Nations Sustainable Development Goals (SDGs). The 17 goals and 169 targets provide a framework for governments, businesses and organizations to advance sustainable development. Exelon's business and sustainability activities indirectly address nearly all the goals; however, our focus is on the three priority SDGs that most directly align with our business at the target level: SDG 7, Affordable and Clean Energy; SDG 9, Industry, Innovation and Infrastructure; and SDG 13, Climate Action. We further discuss this alignment in Corporate Sustainability Report section on Building an Energy Company for the Future.

Through regular engagement with our stakeholders, we improve our understanding of emerging trends affecting our business and address stakeholder needs and concerns. We use stakeholder feedback to inform our sustainability strategy and business plans.

C12.3f

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

Exelon maintains a Government and Regulatory Affairs and Public Policy department to ensure that we stay up to date and involved in regulatory and policy activities relating to clean energy and other climate change issues. We have specialists on the federal level, as well as those focused specifically on state and the utility jurisdiction level. Exelon's Executive Vice President of Government and Regulatory Affairs and Public Policy is responsible for the development and coordination of the Corporation's overall position on various policies that may affect our businesses and works with executives across all operating companies to maintain alignment with more local issues. Policy coordination is also part of Exelon's strategic planning process, with our strategy periodically reviewed by the Exelon Executive Committee.

Exelon's Government and Regulatory Affairs and Public Policy Department also works closely with the Corporate Strategy Department with regards to developments in industry trends and ongoing climate change analysis that may influence our public position or engagement efforts. Every year with the production of our Corporate Sustainability report, a review board is established with representation across the company to capture and share all related activities. This structured process also helps to ensure that our direct and indirect activities that influence policy are consistent with our overall clean energy and climate change strategy.

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 other regulatory filings

Status

Complete

Attach the document

 Exelon 10K 2020.pdf

Page/Section reference

Exelon 10-K: Page 21-22, 32, 35, 41

Content elements

Governance

Strategy

Risks & opportunities

Comment

No Comment


Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

 EXL_20_SR_0604_FINAL.pdf

Page/Section reference

Exelon Corporate Sustainability Report: Pages 21-39; 40-55; 57-69; 82; 112; 123-125; 128-131; 141-146

Content elements

Governance

Strategy



Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

No Comment

Publication

In voluntary communications

Status

Complete

Attach the document

 Exelon Taking Major Steps to Electrify 30 Percent of Utility Vehicle Fleet by 2025; 50 Percent by 2030_4080.pdf

Page/Section reference

whole document

Content elements

Emission targets

Comment

The announcement of our fleet vehicle electrification goal.



C15. Signoff

C-FI

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

C15.1

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

	Job title	Corresponding job category
Row 1	Vice President, Corporate Strategy; Chief Sustainability Officer	Chief Sustainability Officer (CSO)

SC. Supply chain module

SC0.0

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

Exelon as a Supplier: As a power producer, marketer and distributor, Exelon's electricity and natural gas related services contribute to the GHG emissions profile of a wide variety of wholesale and retail consumers, including residential customers, businesses, manufacturers and government agencies. The actions we take to reduce GHG emissions within our electricity generation mix or distribution systems not only flow through to the benefit of our customers but also have a beneficial impact on the overall emission rates in the markets where we operate. These actions include investments in our delivery systems to help us better align with customer needs and to improve overall load management. Exelon utilities, ACE, BGE, ComEd, Delmarva, PECO and Pepco, invested \$6.6 billion in technology and infrastructure in 2020, and are among the leaders in the nation in deploying smart meter and smart grid technologies.



Exelon Generation continues to focus on operating power generation assets at world class performance levels. In support of our customers' interests in affordable, reliable and clean energy, we take pride in operating one of the most reliable power generation fleets in the country — a fleet with the lowest CO2 emission rate of, by an order of magnitude, the nation's 20 largest investor-owned power generators. Our nuclear, wind, solar, hydroelectric, and battery storage plants represent about 21,800 MW of zero-emission electricity. Exelon Generation is the largest generator of zero-carbon power in the United States due to our generation technology investments and our methodical approach to operational excellence and investment in increased capacity at existing zero-carbon plants.

Within our competitive retail offerings and utility services, we also provide customers with energy efficiency solutions to reduce their GHG emissions by more effectively managing the energy they use over time, and load response solutions to help them reduce consumption in response to energy price signals in the market. Additionally, through our utility-wide energy efficiency programs we are educating thousands of residential and business customers on the importance of energy efficiency and we directly help our customers make changes that will result in the reduction of the Scope 2 emissions associated with their electricity use.

We are also using our unique perspective, from having interests across the electricity value chain, to support the integration of clean energies through competitive markets that preserve reliability of supply and affordability for customers. Through Renewable Energy Credits (RECs) and Emission Free Energy Certificate (EFEC) products (associated with emissions free nuclear generation), Exelon helps our customers engage in carbon reduction activities, supports the development of low-carbon generation, and advocates for addressing the issue of climate change. In addition, through our compliance with Renewable Portfolio Standards (RPS) within the states where we do business, we are contributing to renewable generation development and a cleaner energy future.

Exelon as a Consumer: Exelon was also a founding member of the Electric Utilities Industry Sustainable Supply Chain Alliance, as we recognized the impact and influence that we could have with the suppliers we use and through the product choices that we make. The Alliance currently has 15 members and benefits from working together to green the electric utility industry supply chain. The Alliance is a 501(c) 6 Standards Development Organization with the mission to work with its members and interested stakeholders to develop voluntary consensus standards for the creation of a supply chain that is environmentally responsible, efficient, cost effective and positively impacts communities. Exelon continues to pursue progress against the Alliance's sustainability maturity model by creating more rigor around the scoring of sustainability aspects of supplier proposals in bids and by recognizing top suppliers with awards related to their environmental performance. Exelon continues to recommend supplier participation in the Alliance and the EUISSCA Supplier Affiliate Membership program. From July 2019 through June 2020, Exelon's Chief Supply Officer was Chair of the EUISSCA executive committee.