Dominion Energy - Climate Change 2019

C0. Introduction

C0.1

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

Dominion Energy, Inc. (Dominion Energy) is one of the nation’s largest producers and transporters of energy. As of January 2019, Dominion Energy has a portfolio of approximately 32,000 megawatts (MW) of generation; 108,800 miles of natural gas transmission, gathering, storage and distribution pipelines; and 95,000 miles of electric transmission and distribution lines. Dominion Energy operates one of the nation’s largest natural gas storage systems with approximately one trillion cubic feet of storage capacity and serves 7.5 million utility and retail energy accounts. Dominion Energy develops and produces gas reserves in Wyoming, Colorado, and Utah, and is a producer and supplier of natural gas liquids (NGLs) at facilities in Maryland, Ohio, Pennsylvania, and West Virginia. In January 2019, Dominion Energy completed the SCANA Combination in a stock-for-stock merger valued at $13.4 billion. SCANA, now a wholly-owned subsidiary of Dominion Energy operating as Southeast Energy Group (SEG), is primarily engaged in the generation, transmission, and distribution of electricity in the central, southern, and south western portions of South Carolina and in the distribution of natural gas in North Carolina and South Carolina. SEG’s climate emissions are not included in the 2019 Climate CDP because SEG became part of Dominion Energy outside of the reporting time frame. Dominion Energy remains focused on managing its carbon footprint and ongoing efforts to provide safe, reliable, affordable and clean energy to customers. Solar energy generation is a key component of Dominion Energy’s clean energy growth. Since 2013, we’ve brought 2,600 MW of large-scale solar into operation in nine states, enough energy to power about 600,000 homes at peak solar output. In 2018, the Company brought online 136 MW of solar generating capacity at six facilities, and we are planning to add another 3,000 MW of new solar or wind in Virginia by 2022. Dominion Energy is now the nation’s fourth-largest utility owner-operator of solar power. In 2018, Dominion Energy had partial ownership of two wind power facilities and is constructing the Coastal Virginia Offshore Wind project, which includes two 6 MW turbines, enough to power 3,000 homes at peak. Our two onshore wind power facilities operated in 2018 and generate 565 MW of electricity, enough to power up to 156,000 homes. As of June 2019, Dominion Energy divested one of these onshore wind facilities. The Company employs traditional hydropower at two locations in Virginia and two locations in North Carolina. Additionally, the Bath County Pumped Storage Station is the largest of its kind in the world, capable of powering 750,000 households - more than the Hoover Dam. Dominion Energy takes pride in its environmental stewardship. Dominion Energy’s strategy is to be a leading sustainable provider of electricity, natural gas and related services. Since 2003, Dominion Energy has donated nearly $32 million to a wide variety of environmental projects across its footprint.

The terms “Dominion Energy,” “Company,” “we,” “our” and “us” are used throughout this report and, depending on the context of their use, may represent any one of the following: the legal entity, Dominion Energy, Inc., one or more of Dominion Energy, Inc.’s subsidiaries or operating segments, or the entirety of Dominion Energy, Inc. and its consolidated subsidiaries. The information contained in this report is for general information purposes only. While Dominion Energy, Inc. used its best effort to produce accurate and timely information as of the date of submission to the CDP, we make no representations or warranties of any kind, expressed or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the information contained in this report for any purpose. Information is being provided as of the date requested and we undertake no obligation to correct or update any information provided herein or to reflect developments after such information has been provided. GHG emissions information is not necessarily indicative of future GHG emissions information and does not guarantee future GHG emissions information. Responses to certain questions requiring the calculation of BOE (barrels of oil equivalent) have not been provided given Dominion Energy’s asset mix consisting primarily of regulated gas and electric infrastructure assets, as opposed to gas and oil reserves and associated producing assets for which the BOE measurement is generally applied. This report requests information about certain specific risks relating to the operation of our business. Other risks relating to Dominion Energy are detailed from time to time in our most recent Securities and Exchange Commission filings including the quarterly reports on Form 10-Q and annual reports on Form 10-K.

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

<table>
<thead>
<tr>
<th>Row</th>
<th>Start date</th>
<th>End date</th>
<th>Indicate if you are providing emissions data for past reporting years</th>
<th>Select the number of past reporting years you will be providing emissions data for</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>January 1, 2018</td>
<td>December 31, 2018</td>
<td>No</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>

(C0.3) Select the countries/regions for which you will be supplying data.
United States of America

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

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.
Equity share

(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
- Gas extraction and production

(C-OG0.7)
(C-OG0.7) Which part of the oil and gas value chain and other areas does your organization operate in?

Row 1

Oil and gas value chain
Upstream
Downstream

Other divisions
Grid electricity supply from gas
Grid electricity supply from coal
Grid electricity supply from renewables

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.

<table>
<thead>
<tr>
<th>Position of individual(s)</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Executive Officer (CEO)</td>
<td>In addition to his responsibilities as Chairman of the Board of Directors, the CEO, along with the Company’s business unit leaders and other senior officers oversee a critical part of the Company’s management and planning for climate-related issues, targets, environmental performance, and sustainability initiatives. He is also responsible for our long-term growth strategy, which addresses the interests of our shareholders, customers, suppliers, and communities we serve, along with the environment. In late 2018, the Board, which includes our CEO as Chairman, formed the Sustainability and Corporate Responsibility Committee, which assists the Board by: overseing strategies, activities and policies regarding environmental sustainability, corporate social responsibility (CSR), and public issues of significance that may affect the Company’s stakeholders; reviewing company sustainability targets; and receiving progress reports in achieving those commitments.</td>
</tr>
<tr>
<td>Other, please specify (Board of Directors &amp; Board SCR Committee)</td>
<td>Dominion Energy’s Board of Directors and its committees, collectively referred to as “the Board,” oversee our environmental performance and sustainability initiatives, including climate-related issues, as well as our long-term growth strategy which addresses the interests of our shareholders, customers, suppliers, communities we serve, and the environment. In late 2018, the Board formed the Sustainability and Corporate Responsibility Committee, which assists the Board by: • Overseeing strategies, activities and policies regarding environmental sustainability, corporate social responsibility and public issues of significance that may affect the Company’s stakeholders; • Reviewing sustainability and corporate responsibility reports and other significant communications and reporting to stakeholders on environmental and social responsibility initiatives and activities; and • Reviewing company sustainability targets and receiving progress reports in achieving those commitments.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Frequency with which climate related issues are a scheduled agenda item</th>
<th>Governance mechanisms into which climate related issues are integrated</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scheduled</strong> – some meetings</td>
<td><strong>Reviewing and guiding strategy</strong></td>
<td>The Board oversees the Company’s environmental performance and sustainability initiatives, including climate-related issues, along with our long-term growth strategy which addresses the interests of shareholders, customers, employees, suppliers, and the communities we serve. Given the iterative nature of strategy development, the Board’s oversight of strategy is continuous and embedded in its governance activities throughout the year, including: • Oversight of the long-term financial plan, which is updated in a process that dovetails with the Company’s annual corporate and business unit risk assessments; • Semi-annual planning retreats; • Review of the Company’s safety, sustainability, workforce development, diversity, and innovation initiatives; • Regular public policy updates, including customer and public opinion research; and • Oversight of the Ethics &amp; Compliance program, which is tasked with reinforcing the Company’s strong ethical culture. Two key areas of responsibility that support the Board’s strategic role are its oversight of risk management and the Company’s sustainability initiatives. The Board has implemented a risk governance framework designed to help the directors: • Understand critical risks in the Company’s business and strategy; • Allocate responsibilities for risk oversight among the full Board and its committees; • Evaluate the Company’s risk management processes and whether they are functioning adequately; • Facilitate open dialogue between management and directors; and • Foster a risk-aware business culture at the Company. This framework is supported by the Company’s internal processes and an effective internal control environment that facilitate the identification and management of risks and regular communication with the Board. In addition, the Company’s enterprise risk management (ERM) program is designed to identify operational, financial, strategic, compliance, and reputational risks that could adversely affect the execution of the Company’s plans or effectiveness of its business model (or, conversely, facilitate new growth opportunities). ERM processes are used to assess the likelihood and potential impact of these risks and develop strategies to mitigate or manage such risks within the Company’s risk appetite. Sustainability and corporate responsibility matters are a priority for our Board, which recognizes that its oversight of ESG matters is of increasing interest to our investors and other stakeholders. To enhance its oversight of the Company’s performance as a responsible corporate citizen, the Board formed the Sustainability and Corporate Responsibility Committee, which is composed entirely of independent directors and reviews Dominion Energy’s approach to environmental, social, economic, and reputational matters that affect the Company’s business and performance, as well as our communities and stakeholder groups. The Board typically meets about eight to ten times a year.</td>
</tr>
<tr>
<td><strong>Reviewing and guiding major plans of action</strong></td>
<td><strong>Reviewing and guiding risk management policies</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Reviewing and guiding annual budgets</strong></td>
<td><strong>Reviewing and guiding business plans</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Monitoring implementation and performance of objectives</strong></td>
<td><strong>Overseeing major capital expenditures, acquisitions and divestitures</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

<table>
<thead>
<tr>
<th>Name of the position(s) and/or committee(s)</th>
<th>Responsibility</th>
<th>Frequency of reporting to the board on climate related issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Executive Officer (CEO)</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>More frequently than quarterly</td>
</tr>
<tr>
<td>Other, please specify (Chief Environmental Officer and Senior Vice President – Sustainability) Full title: Chief Environmental Officer and Senior Vice President – Sustainability</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>More frequently than quarterly</td>
</tr>
<tr>
<td>Other, please specify (Chief Admin &amp; Compliance Officer)</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>More frequently than quarterly</td>
</tr>
<tr>
<td>Other, please specify (Senior Vice President - Corporate Affairs)</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>More frequently than quarterly</td>
</tr>
<tr>
<td>Other, please specify (Vice President and General Counsel)</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>More frequently than quarterly</td>
</tr>
<tr>
<td>Other, please specify (each Business Group Unit CEO)</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>More frequently than quarterly</td>
</tr>
</tbody>
</table>

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).

We have several officers with responsibilities for climate-related issues, including (i) our CEO, (ii) Chief Environmental Officer and Senior Vice President – Sustainability, who reports to the Chief Administrative & Compliance Officer; (iii) Chief Administrative & Compliance Officer, who reports directly to the CEO; (iv) Senior Vice President – Corporate Affairs, who reports directly to the CEO; (v) Chief Risk Officer, who reports directly to the Chief Financial Officer; and (vi) Senior Vice President and General Counsel; and (vii) each Business Unit CEO, who report directly to the CEO. Each Business Unit Chief Executive Officer has responsibility for helping to develop and implement climate-related strategies and managing related risks and opportunities. Also, every officer at Dominion Energy is responsible for compliance with environmental laws and regulations, including any climate-related requirements, within their areas of responsibility. While the Board and its committees oversee risk policies and implementation of risk-related procedures, company management is charged with managing risks. The Company has robust internal processes and an effective internal control environment that facilitate the identification and management of risks and regular communication with the Board. The Board and its committees receive and discuss reports regularly and as important matters arise from members of management, including the CEO, Chief Environmental Officer and Senior Vice President – Sustainability, Chief Administrative & Compliance Officer, Senior Vice President – Corporate Affairs, Senior Vice President and General Counsel, Chief Risk Officer, Chief Information Officer, Chief Environmental Officer, and our Business Unit CEOs who are involved in our risk assessment and risk management functions on a daily basis. These reports and updates pertain to topics that are pertinent to Dominion Energy’s operations, including safety, environmental (including climate), human resources, employees, customers, security (including cyber), social and economic issues, financial performance, and long-term strategy.

Dominion Energy believes that environmental sustainability, climate change included, is most successful when incorporated into a corporate-wide structure that ensures collaboration and participation across business units. For that reason, the Company formed the Innovation, Technology and Sustainability (ITS) Council (the "ITS Council") that is chaired by Dominion Energy’s CEO and includes members of the C-suite and several senior subject matter experts. The ITS Council has responsibility for oversight of initiatives that are intended to further our sustainability goals, including reductions in carbon and methane emissions for the Company and our customers.

The Company also created the Environmental, Sustainability and Governance Working Group (the “ESG Working Group” or “Working Group”), facilitated by our Corporate Governance and Compliance team, which in turn reports to the Company's Executive Vice President and Chief Administrative & Compliance Officer and Corporate Secretary. The Working Group is cross-functional and includes leaders from around the Company who oversee implementation of Dominion Energy’s ESG initiatives and disclosures. Responsibilities of this group include: Advising Dominion Energy’s senior leadership, including the ITS Council (referenced above), on the Company’s ESG policies, strategies, and programs; supporting the Dominion Energy Board of Director’s Sustainability and Corporate Responsibility Committee; sharing information regarding the company’s technology and policy initiatives; providing updates on stakeholder engagement activities; and recommending performance targets the Company may establish from time to time on various ESG criteria, monitoring progress against those goals, and providing the results to senior leadership.

C1.3

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

C1.3a

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

Who is entitled to benefit from these incentives?  
Other C-Suite Officer

Types of incentives  
Monetary reward

Activity incentivized
Emissions reduction target

Comment
Dominion Energy’s Annual Incentive Plan (“AIP”) provides a monetary reward to eligible employees based on the achievement of the Company’s annual financial, business units’ financial, and individual operating and stewardship goals. All employees, including C-suite officers, who participate in the 2018 AIP have a portion of their AIP payout tied to the accomplishment of environmental goals, which may be linked to climate change directly or indirectly. Dominion Energy sets a diverse suite of 2018 AIP Environmental Goals such as: 1) Execute Business Group-specific enhanced environmental management system (EMS) Implementation Plans by end of 2018 2) Track reportable environmental events and establish environmental baselines for 2019 3) Incorporate environmental stewardship/pollution prevention/corporate responsibility target For the 2018 year, an AIP environmental goal for our Chief Environmental Officer and Senior Vice President – Sustainability, as well as other certain C-Suite Officers, was to report emissions reductions to EPA voluntarily.

Who is entitled to benefit from these incentives?
Other C-Suite Officer

Types of incentives
Monetary reward

Activity incentivized
Other, please specify (Development of enhanced corporate EMS)

Comment
Dominion Energy’s Annual Incentive Plan (“AIP”) provides a monetary reward to eligible employees based on the achievement of the Company’s annual financial, business units’ financial, and individual operating and stewardship goals. All employees, including C-suite officers, who participate in the 2018 AIP have a portion of their AIP payout tied to the accomplishment of environmental goals, which may be linked to climate change directly or indirectly. Dominion Energy set a diverse suite of 2018 AIP Environmental Goals such as: 1) Execute Business Group specific enhanced environmental management system (EMS) Implementation Plans by end of 2018 2) Track reportable environmental events and establish environmental baselines for 2019 3) Incorporate environmental stewardship/pollution prevention/corporate responsibility target For the 2018 year, an AIP environmental goal for our Chief Environmental Officer and Senior Vice President – Sustainability, as well as other certain C-Suite Officers, was to use the Dominion Energy Environment and Sustainability (DEES) Environmental Events and Regulatory Inspection tracking system to track environmental compliance between January 1 to December 31, 2018. As an AIP goal, the DEES organization evaluated methane emissions to better understand sources, information gaps, and calculation methodology.

Who is entitled to benefit from these incentives?
Business unit manager

Types of incentives
Monetary reward

Activity incentivized
Other, please specify (Development of enhanced corporate EMS)

Comment
Dominion Energy’s Annual Incentive Plan (“AIP”) provides a monetary reward to eligible employees based on the achievement of the Company’s annual financial, business units’ financial, and individual operating and stewardship goals. All employees, including C-suite officers, who participate in the 2018 AIP have a portion of their AIP payout tied to the accomplishment of environmental goals, which may be linked to climate change directly or indirectly. Dominion Energy set a diverse suite of 2018 AIP Environmental Goals such as: 1) Execute Business Group specific enhanced environmental management system (EMS) Implementation Plans by end of 2018 2) Track reportable environmental events and establish environmental baselines for 2019 3) Incorporate environmental stewardship/pollution prevention/corporate responsibility target For the 2018 year, an AIP environmental goal for the business unit manager, was to use the Dominion Energy Environment and Sustainability (DEES) Environmental Events and Regulatory Inspection tracking system to track environmental compliance for January 1 to December 31, 2018.

Who is entitled to benefit from these incentives?
Other, please specify (Business Unit Vice President)

Types of incentives
Monetary reward

Activity incentivized
Behavior change related indicator

Comment
Dominion Energy’s Annual Incentive Plan (“AIP”) provides a monetary reward to eligible employees based on the achievement of
the Company’s annual financial, business units’ financial, and individual operating and stewardship goals. All employees, including C-suite officers, who participate in the 2018 AIP have a portion of their AIP payout tied to the accomplishment of environmental goals, which may be linked to climate change directly or indirectly. Dominion Energy sets a diverse suite of 2018 AIP Environmental Goals such as: 1) Execute Business Group specific enhanced environmental management system (EMS) Implementation Plans by end of 2018 2) Track reportable environmental events and establish environmental baselines for 2019 3) Incorporate environmental stewardship/pollution prevention/corporate responsibility target For the 2018 year, an AIP environmental goal for a business unit Vice President was to complete site assessments at 5 assigned Facility locations to review current recycling programs, select best practices and improve our commitment and recycling practices.

Who is entitled to benefit from these incentives?
All employees

Types of incentives
Recognition (non-monetary)

Activity incentivized
Other, please specify (Dominion Energy IDeAS)

Comment
All employees who participate in the 2018 AIP and certain C-suite officers have a portion of their AIP payout tied to the accomplishment of environmental goals which may be linked to climate change directly or indirectly. The Dominion Energy IDeAS program (stands for Innovation, Development and Solutions) and Chairman’s Excellence award are examples of ways Dominion Energy encourages our employees to channel their creativity toward the development of innovative products and services geared towards areas such as safety, customer service, and environmental excellence. For example, in 2018, a Chairman’s Excellence winner came up with an idea to use augmented reality to improve engagement with customers on strategic undergrounding. Our strategic undergrounding program helps shield our assets and customers from the effects of climate change by placing more vulnerable and outage-prone distribution lines underground.

C2. Risks and opportunities

C2.1
(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

<table>
<thead>
<tr>
<th>From (years)</th>
<th>To (years)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Medium-term</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Long-term</td>
<td>15</td>
<td>25</td>
</tr>
</tbody>
</table>

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

<table>
<thead>
<tr>
<th>Frequency of monitoring</th>
<th>How far into the future are risks considered?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>Six-monthly or more frequently &gt;6 years</td>
<td>Dominion Energy’s Board of Directors and its committees (the Board) have oversight of the Company’s environmental performance and sustainability initiatives, along with the long-term growth strategy which addresses the interests of shareholders, customers, employees, suppliers, and the communities we serve. While the Board oversees risk policies and implementation of risk-related procedures, management is charged with assessing and managing risk (including climate) on a daily basis. The Board receives and discusses environmental compliance and reports regularly from management, including the Chief Risk Officer, Chief Information Officer, each Business Group Unit's CEO, and Chief Environmental Officer. These reports pertain to the Company's operations, including environmental, safety, employees, customers, security (including cyber), financial performance, and long-term strategy.</td>
</tr>
</tbody>
</table>
(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

The Company conducts a comprehensive enterprise-wide risk assessment as well as business unit specific risk assessments, which are ultimately reported to the Board. The risks assessed include, but are not limited to, financial, operating, compliance, environmental (including climate), legal, regulatory, strategic, and reputation risks, as well as emerging risks. Environmental-related risk (including climate) is one of the many sub-areas of each of these major risk areas. Once specific risks are identified under each major category above, the impacts and likelihood of each risk is evaluated by vote in a session led by the Corporate Strategic Risk Management team with the Business Group senior leadership (or their designees). This voting session and accompanying dialogue is used to assess participant consensus by the Corporate Strategic Risk Management team to develop a draft annual enterprise risk assessment report, which also contains the “risk response” (how the risk is being or is proposed to be managed) for each risk identified. Once comments are collected by the Corporate Strategic Risk Management team, a final report is issued and implemented.

Business units identify specific risks and issues that may impact existing operations and Dominion Energy’s growth strategy. Our Chief Risk Officer is responsible for implementation of a continuous enterprise-wide approach to risk identification, analysis, monitoring, and communication. This approach includes enterprise-wide dialogue on risk through ongoing management discussions including an annual planning risk assessment. This risk assessment process is designed to serve as a planning tool for each business unit and is designed to integrate risks into the annual budget and planning cycle. During this process, the Chief Risk Officer and the leaders of each group in the Company consider the group’s strategy, threats, and opportunities related to that strategy, and all risks to meeting the strategy.

The risk assessment process defines the top existing and emerging risks within each business unit, promotes enterprise-wide dialogue concerning these risks, and facilitates an enterprise-wide understanding of the strategy, threats, and opportunities in every area of the Company. Corporate Strategic Risk Management conducts multiple risk assessment processes annually, focusing on specific businesses within Dominion Energy as well as a corporate-wide process. In each of these risk assessment sessions, the teams discuss risks that are likely to occur. The discussion also focuses on aligning resources with the most important risks. To do so, all aspects of a risk are considered – strategic importance, financial impact and operational and compliance aspects. The results of these discussions are another input into our planning cycle. Additionally, the groups determine whether or not a risk is considered to have a substantive financial impact to the Company.

We define “substantive financial impact” to be any change in the determination of investors in buying, holding, and selling Dominion Energy securities. The metric or indicator of “substantive change” is simply whether or not a reasonable investor would attach any importance to the impact in question. We set this threshold very conservatively; any change in impacts ranging from low to high magnitudes, that a reasonable investor would attach importance to when considering Dominion Energy securities would count as an issue with the potential to cause a substantive strategic impact. This is applicable primarily to our direct operations, though it can occasionally apply to our indirect operations as issues that affect Dominion Energy service areas.

As an example of a considered, substantive climate-related impact, our 2019 10-K Annual Report identifies severe storms, earthquakes, flooding, and changes in water temperature and availability as having the potential to disrupt operation of company facilities, which negatively impacts our direct operations. Dominion Energy considers information to be “material” based on thresholds defined by the Securities and Exchange Commission (SEC) for the Companies’ financial reporting.

(C2.2c) Which of the following risk types are considered in your organization’s climate-related risk assessments?
Current regulation
Relevant, always included
Dominion Energy not only meets or exceeds current environmental (including climate-related) regulations, but also participates in various voluntary environmental-related initiatives to better assess and ultimately seek to reduce our carbon footprint. These types of current regulations and our voluntary initiatives can be considered a risk to Dominion Energy and thus, are considered in project planning as well as when assessing strategic, operational, and compliance risk areas. As an example, Dominion Energy supported the “Grid Transformation and Security Act,” legislation signed into law in 2018. The legislation declares 5,500 MW of solar and wind energy in the public interest, including specific carve out for offshore wind and rooftop solar. It also includes more than one billion dollars of future energy-efficiency filings and shareholder-funded programs to provide bill payment assistance and free weatherization to low income customers. Six weeks after the legislation became law, Dominion Energy publicly committed to having 3,000 MW of renewable energy operational or under development in Virginia within the next 4 years, and filed with the SCC approval over of 200 MW of solar, as well as an offshore wind pilot program, which was approved in November 2018. Additionally, one of Dominion Energy’s facilities, Manchester Street, is subject to the Regional Greenhouse Gas Initiative (RGGI). Beginning with calendar year 2009, RGGI requires that Dominion Energy cover each ton of CO2 direct stack emissions from these facilities with either an allowance or an offset. The allowances can be purchased through auction or through a secondary market. Dominion Energy complied through a combination of strategies including procurement of RGGI allowances in regional auctions and secondary market purchases of RGGI allowances, as well as greenhouse gas offset procurement. Dominion Energy periodically participated in RGGI allowance auctions to date and has procured allowances to meet its estimated compliance requirements under RGGI for 2009 through 2017 and partially for 2018. In December 2018, Dominion Energy sold Manchester Street to a new owner, Starwood Energy. The RGGI allowances for the 2018 compliance year were transferred to Starwood Energy as part of the sale. Starwood was responsible for demonstrating compliance with RGGI during the first quarter of 2019.

Emerging regulation
Relevant, always included
Any additional emerging federal and/or state requirements imposed on energy companies mandating limitations on GHG emissions or requiring efficiency improvements may result in compliance costs that alone or in combination could make some of the Company’s electric generation units or natural gas facilities uneconomical to maintain or operate. In June 2019, EPA has issued the Affordable Clean Energy (ACE) rule targeted at reducing CO2 emissions from existing fossil fuel-fired power generation facilities as a replacement for the Clean Power Plan. The Affordable Clean Energy rule would require states to develop plans within three years of the final rule to implement these performance standards. On May 27, 2019, the Virginia Department of Environmental Quality (DEQ) finalized its carbon regulation that establishes a state cap-and-trade program linked to 10-state RGGI program for electric generating units in Virginia. Compliance with the ACE rule or other federal or state carbon regulations is expected to require increasing the energy efficiency of equipment at facilities, committing significant capital toward carbon reduction programs, purchasing of allowances and/or emission rate credits, fuel switching, and/or retirement of high-emitting generation facilities and potential replacement with lower-emitting generation facilities. Given these developments and uncertainties, Dominion Energy and Virginia Power cannot estimate the aggregate effect of such requirements on their results of operations, financial condition, or their customers. However, such expenditures, if material, could make Dominion Energy and Virginia Power’s generation facilities uneconomical to operate, resulting in the impairment of assets or otherwise adversely affecting Dominion Energy or Virginia Power’s results of operations, financial performance, or liquidity. Dominion Energy's 2018 Integrated Resource Plan (IRP) evaluates regulatory compliance with greenhouse gas regulation over a period of 25 years (2019 through 2043, using 2018 as the base year). Future regulatory requirements and associated timing are not always known. The IRP, 10-K, 10-Q, and Dominion Energy risk assessments consider future direction of emerging regulations and provide a reasonable proxy or forecast of future regulations and compliance implementation strategies.

Technology
Relevant, always included
Dominion Energy considers technological and best available technology risks in climate-related assessments and may also be considered in project planning, as well as when assessing strategic, operational, and compliance risk areas. In particular, Dominion Energy understands that reduced energy demand due to customer adoption of energy-efficient technology could impact our businesses. Smart meters and other grid transformation investments will help integrate new technologies like private solar and electric vehicle charging stations into the grid. Investments in intelligent grid devices, smart meters, and automated control systems will enable a “self-healing” grid that will speed the restoration process by quickly identifying and isolating outages. New construction and material standards will improve grid resiliency and reduce outages caused by weather and other events. To protect the grid against the growing threat of both physical and cyber attacks, we will harden substations serving critical facilities with the deployment of new intelligent devices and control systems that help detect and recover from outage events quicker. Other efforts include placing more vulnerable and outage-prone distribution lines underground. The latest expansion of the Company's Strategic Underground Program (SUP) is now under review by the SCC. Dominion Energy was recently recognized by the Southeastern Electric Exchange (SEE) for an innovative project that addressed voltage control and reliability on its transmission system. The President and CEO of Dominion Energy is a Principal of the American Energy Innovation Council (AECIC), whose mission is to re-establish America’s energy technology leadership through robust public investments in the development of world-changing energy technologies. Emphasizing the economic opportunity presented by the development of the next generation of energy technologies, our executives sent a letter to Congress underscoring the importance of public investments to private sector efforts highlighting the competitive advantages provided to energy-intensive domestic businesses by breakthrough energy technologies that can drive down energy costs. The Dominion Energy IDEAS program encourages our employees to channel their creativity toward the development of innovative products and services geared towards areas such as safety and environmental excellence.

Legal
Relevant, always included
Legal risks are evaluated in our climate-related risk assessments by how they relate to compliance with current and emerging environmental regulations. Compliance with these legal requirements, such as those related to air quality, water quality, natural resources, and regulation of GHG emissions requires Dominion Energy to commit significant capital toward permitting, emission fees, and environmental monitoring. In addition to imposing continuing compliance obligations, these laws and regulations authorize the imposition of substantial penalties for noncompliance, including fines, injunctive relief, and other sanctions. Current environmental regulations are considered in project planning, as well as when assessing strategic, operational, and compliance risks. Dominion Energy’s 2018 Integrated Resource Plan (IRP) evaluates regulatory compliance with GHG regulation over a period of 25 years (2019 through 2043, using 2018 as the base year). Future regulatory requirements and the associated timing of are not always known. The IRP, 10-K, 10-Q, and Dominion Energy risk assessments consider future direction of regulations and provide a reasonable proxy or forecast of future regulations and compliance implementation strategies.
<table>
<thead>
<tr>
<th>Relevance &amp; inclusion</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market</strong> Relevant, always included</td>
<td>Dominion Energy always considers energy markets and carbon trading markets, such as wholesales markets regulated by Federal Energy Regulatory Commission (FERC) and Pennsylvania New Jersey Maryland Interconnection (PJM), in climate-related risk assessments. As an example on the merchant portfolio side for Dominion Energy, 5 of Dominion Energy’s fossil generating units and 56 of Dominion Energy’s carbon-free generation stations participate in wholesale markets regulated by FERC. Additionally, a total of 87 units participate in the wholesale market, PJM, with the total system regulated capacity. In 2019, Dominion Energy’s merchant portfolio will be 100% carbon-free generation. The wholesale markets allow these generation stations to take advantage of market price opportunities, but Dominion recognizes that this exposes the Company to market risk. Properly functioning competitive wholesale markets depend upon FERC’s continuation of clearly marked market rules. Occasionally, FERC may investigate and authorize RTOs to make changes in market design. FERC also periodically reviews Dominion Energy’s authority to sell at market-based rates. Material changes by FERC to the design of the wholesale markets or its interpretation of market rules, Dominion Energy or Virginia Power’s authority to sell power at market-based rates, or changes to pricing rules or rules involving revenue calculations, could adversely impact the future results of Dominion Energy or Virginia Power’s generation business.</td>
</tr>
<tr>
<td><strong>Reputation</strong> Relevant, always included</td>
<td>A key goal of Dominion Energy is to be a good corporate citizen as it relates to climate. Thus, reputation is included in our climate-related risk assessments and are considered in project planning as well as when assessing strategic, operational, and compliance risk areas. Dominion Energy may be materially favorably affected by positive publicity related to the SCANA merger and reduced SC&amp;E&amp;G customer electric bills as a result of Dominion Energy’s levelized Customer Benefits Plan. From time to time, political and public sentiment in connection with the merger and in connection with other matters, including the abandonment of the V.C. Summer new nuclear development (NND) Project, may result in a significant amount of adverse or positive press coverage and other adverse and positive public statements affecting Dominion Energy, as these pertain to climate-related issues. Adverse press coverage and other adverse statements, whether or not driven by political or public sentiment, may also result in investigations by regulators, legislators and law enforcement officials, or in legal claims. Responding to these investigations and lawsuits, regardless of the ultimate outcome of the proceedings, as well as responding to and addressing adverse press coverage and other adverse public statements can divert the time and effort of senior management from the management of Dominion Energy’s business.</td>
</tr>
<tr>
<td><strong>Acute physical</strong> Relevant, always included</td>
<td>Severe acute physical impacts from storms and weather are considered in climate-related risk assessments and mitigation measures, particularly in terms of how the results of operations may be affected by these changes in weather. These are considered in project planning, as well as when assessing strategic, operational, and compliance risk areas. Fluctuations in weather can affect demand for the Companies’ services and results of operations. For example, milder than normal weather can reduce demand for electricity and gas transmission and distribution services. In addition, severe weather, including hurricanes, winter storms, earthquakes, floods, and other natural disasters can stress systems, disrupt operation of the Companies’ facilities, and cause service outages, production delays, and property damage that require incurring additional expenses. In 2018, 636,369 of Dominion Energy’s customers in the North Carolina and Virginia Service areas experienced outages due to Tropical Storm Michael. Furthermore, the Companies’ operations could be adversely affected and their physical plant placed at greater risk of damage should changes in global climate produce unusual variations in temperature and weather patterns, resulting in more intense, frequent, and extreme weather events, abnormal levels of precipitation, and for operations located on or near coastlines, a change in sea level or sea temperatures. Distribution design standards meet or exceed National Electric Safety Code requirements. Mitigation measures include routine inspection and maintenance plans, vegetation management, various programs such as strategic undergrounding designed to help ensure system reliability and resilience, and potential flooding mitigation and management. Our Emergency Response team adheres to the National Incident Management System Incident Command System structure, and we have an integrated Power Delivery Crisis Response Plan to ensure success regardless of the threat. We continually review and revise response processes by conducting AARs of all significant events. We use this information to reinforce positive activities and make and implement corrective action when gaps are identified. We also conduct annual training for all colleagues targeted to their storm critical roles to ensure our workforce is ready and trained to respond safely and efficiently.</td>
</tr>
<tr>
<td><strong>Chronic physical</strong> Relevant, always included</td>
<td>Severe chronic physical impacts, such as a change in sea level or sea temperatures, are considered in risk assessments and mitigation measures, particularly when we assess our projects and operations located along the coastline. These are considered in project planning as well as when assessing strategic, operational, and compliance risk areas. This includes our Atlantic Coast Pipeline project and Cove Point LNG terminal. Distribution design standards meet or exceed NESC requirements. Mitigation measures include routine inspection and maintenance plans, vegetation management, various programs such as strategic undergrounding designed to help ensure system reliability and resilience, and potential flooding mitigation and management. Our Emergency Response team adheres to the NIMS ICS structure, and we have an integrated Power Delivery Crisis Response Plan to ensure success regardless of the threat. We continually review and revise response processes by conducting AAR of all significant events. We use this information to reinforce positive activities and make and implement corrective action when gaps are identified. We also conduct annual training for all colleagues targeted to their storm critical roles to ensure our workforce is ready and trained to respond safely and efficiently.</td>
</tr>
<tr>
<td><strong>Upstream</strong> Relevant, always included</td>
<td>Upstream risks are included in climate-related risk assessments if directly relevant to at-risk supplies such as fuel sources or locations. These are considered in project planning as well as when assessing strategic, operational, and compliance risk areas. One specific example involves our procurement of coal as a fuel for electric generation. Coal is an at-risk fuel due to regulatory restrictions on emissions, economic conditions, and on our Company’s transition to more renewable and low-carbon energy production. Another example involves state-level requirements (North Carolina and Virginia) for renewable energy production, putting fossil fuel generation in these locations at further risks. The Virginia Grid Transformation Security Act (GTSA) also sets goals and imposes mandates for renewable energy and energy efficiency. The Act declares that development of 5,000 MW of utility owned or operated solar and wind generation in the Commonwealth by July 2028 is in the public interest. The act also imposes significant energy efficiency and grid modernization mandates on the state’s utilities, requiring Dominion Energy Virginia to propose $870 million in such programs by July 2028 and also requiring the utility to submit plans for the transformation and modernization of its electric distribution system.</td>
</tr>
<tr>
<td>Relevance &amp; inclusion</td>
<td>Please explain</td>
</tr>
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<td>----------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Downstream Relevant, always included</td>
<td>Certain downstream risks are included in climate-related risk assessments, particularly the impacts of retiring high-emitting generating facilities. These are considered in project planning as well as when assessing strategic, operational, and compliance risk areas. According to Dominion Energy Virginia’s 2018 IRP, an example of this includes the retirement of 2,785 MW of utility-owned generation powered by less efficient, higher-emitting coal, oil, and steam boiler natural gas technology by 2021 or 2022 at six Virginia sites. Since announcing the retirement of our less efficient units, Dominion Energy has placed several fuel generating units into cold reserve including: Bellemeade, Bremo, and Mecklenburg (April 2018); Chesterfield, units 3 and 4 and Possum Point, units 3 and 4 (December 2018). All cold reserve units were permanently retired in March 2019. We are continuing the expansion of our renewable energy generation fleet, particularly units serving regulated electric utility customers in Virginia and North Carolina. Dominion Energy Virginia’s 2018 IRP calls for development of 4,720 MW of solar photovoltaic (PV) generation by 2033 and as much as 7,200 MW of solar PV capacity by 2043. As stated in the cover letter to Dominion Energy Virginia’s 2018 IRP, the Company believes that regulation of power station CO2 emissions is virtually assured in the future, either through new federal initiatives or through measures adopted at the state level. For example, VA’s final carbon regulation was issued on May 27, 2019 which establishes a state cap-and-trade program.</td>
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</tbody>
</table>

C2.2d
(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

Dominion Energy participates in the corporate risk management process which culminates in the issuance of the Corporate Strategic Risk Assessment, an internal annual enterprise risk report by our Corporate Strategic Risk Management team. We also participate in business unit risk management processes that result in Strategic Risk Management Assessments (reports) for each of the respective business units. The enterprise-wide and business unit analyses are led by the Corporate Strategic Risk Management team and involve representatives from all Business Groups including corporate services leadership. Once specific environmental-related risks and opportunities are identified under strategic, operational, financial, compliance, and regulatory categories, the impacts and likelihood of each risk and opportunity are evaluated by vote in a session led by the Corporate Strategic Risk Management team with the Business Group senior leadership. This voting session and accompanying dialogue is used to assess participant consensus by the Corporate Strategic Risk Management team to develop a draft annual enterprise risk assessment report that includes how the risk is being or is proposed to be managed for each risk identified. Once risks are identified and proper managing plans are agreed upon, these plans are collected by the Corporate Strategic Risk Management team and a final report is issued and implemented. Our Chief Risk Officer (CRO) serves as the facilitator of enterprise-wide dialogue on risk through various management discussions including an annual planning risk assessment. It is important to note that the ownership and management of risk remains with the senior management of the respective business unit or group.

As an example of our risk management process applied to physical risks, our Strategic Underground Program is an initiative we have implemented to manage restoration times following the physical risk of major storms. With this program, we identify areas in the Virginia service area that have experienced the most damage and repairs due to severe weather events and work with property owners and neighborhoods on a plan to undergrounding utilities. By 2028, we plan to bury 4,000 miles of distribution lines prone to weather-related outages. We also implement mitigation measures, which include routine inspections, maintenance plans, and programs designed to help ensure system reliability and resiliency. For our Power Delivery business unit, our Emergency Response team adheres to the National Incident Management System (NIMS) Incident Command System (ICS) structure, and we have integrated Dominion Energy functional area Crisis Response Plans (CRPs) to ensure success regardless of the threat. We continually review and revise response processes by conducting AAR of all significant events using this information to reinforce positive activities and make and/or implement corrective action when gaps are identified.

Our CEO and Board of Directors have oversight for climate-related opportunities with potential to have substantive financial or strategic impact on the Company. The ITS Council, led by the CEO, has ultimate oversight with an ESG Working Group that includes participants from across businesses. Board-level oversight is also achieved through the 5-member Sustainability and Corporate Responsibility Committee who oversee the company’s approach to environmental, social, and reputational matters. ESG matters are addressed at every regularly-scheduled meeting.

To further foster innovation, Sprint teams are routinely used to group expertise and passion around a particular climate-related opportunity. Recently, a vision to further reduce methane emissions and accelerate change was implemented with action items being guided by an executive committee to drive results towards 50% reduction in methane emissions by 2030. In addition, all employees are engaged through surveys to provide ideas for improvement to better leverage the wealth of knowledge across all business units. The best ideas from the surveys are discussed among the Sprint teams at regular meetings in order to develop and gain executive leadership support for them. Those with the highest potential for positive impact are reviewed with the CEO for top-down integration.

Examples of our management process applied to technological (transitional) opportunities include expanding renewable generation assets, energy infrastructure modernization opportunities, and energy efficiency programs on the electric side. For instance, our 2018 Integrated Resource Plan (IRP) presents several options that take advantage of opportunities provided by advances in solar PV technology. To date, we have increased our solar generation portfolio and invested nearly $3.6 billion towards solar energy and increased our solar generation portfolio. In July 2018, the Company announced having 3,000 MW of new solar and wind under development or in operation by the beginning of 2022.
(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**
Physical risk

**Primary climate-related risk driver**
Chronic: Other

**Type of financial impact**
Increased capital costs (e.g., damage to facilities)

**Company-specific description**
The Companies' direct operations could be adversely affected and physical plants placed at greater risk of damage should there be changes in global climate such as unusual variations in temperature and weather patterns. This could result in more intense, frequent, and extreme weather events; abnormal levels of precipitation; and a change in sea level or sea temperatures that would affect our operations located on or near coastlines, such as our Cove Point LNG Terminal located on Chesapeake Bay in Maryland. This risk could also put our generation of energy, including our solar and wind clean energy at risk.

**Time horizon**
Long-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)**
917800000

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

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

**Explanation of financial impact figure**
In its original 2018 Grid Transformation Plan filing, the Company estimated that the proposed capital investment for Phase I of the plan in Virginia, covering the years 2019-2021, would be approximately $816.3 million and the proposed operations and maintenance expenses will be approximately $101.5 million. The total financial impact of which is equal to $917.8 million.

**Management method**
Dominion Energy is actively implementing programs to better protect its electric distribution system in Virginia from the effects of severe weather. Dominion Energy supported significant Virginia legislation which was ultimately signed into law in 2018 named the “Grid Transformation and Security Act”. It includes more than one billion dollars of future energy efficiency filings and shareholder funded programs to provide bill payment assistance and free weatherization to low income customers. These improvements will provide the grid with self-healing capabilities, automatically isolating system faults, rerouting power, and improving system operators’ ability to oversee and manage the grid. Dominion Energy has since publicly committed to having 3,000 MW of renewable energy operational or under development in VA within the next 4 years. Dominion Energy received approval in November 2018 from the VA SCC for an offshore wind pilot program located 27 miles off of the Atlantic coast of Virginia, making it the first offshore
wind installation in US federal waters and it is also the first offshore wind project proposed by a utility. The Company estimated that the proposed capital investment for Phase 1 of the Grid Transformation Plan covering the years 2019 – 2021, would be approximately $816.3 million and the proposed operations and maintenance expenses would be approximately $101.5 million. The total projected cost of management is approximately $917.8 million.

**Cost of management**
917800000

**Comment**
The Company is in the process of developing an updated Grid Transformation Plan filing, based on feedback received in the Virginia State Corporation Commission’s final order. Therefore, cost estimates and/or Grid Transformation Plan scope may change in a future filing. On April 22, 2019, we announced an additional 350 MW of solar over 6 facilities across Virginia and North Carolina either operational or under development under a dedicated contract to serve Facebook. These solar facilities will contribute to the 3,000 MW goal referenced in the above paragraph.

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Risk 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where in the value chain does the risk driver occur?</td>
<td>Customer</td>
</tr>
<tr>
<td>Risk type</td>
<td>Physical risk</td>
</tr>
<tr>
<td>Primary climate-related risk driver</td>
<td>Acute: Increased severity of extreme weather events such as cyclones and floods</td>
</tr>
<tr>
<td>Type of financial impact</td>
<td>Increased operating costs (e.g., higher compliance costs, increased insurance premiums)</td>
</tr>
<tr>
<td>Company-specific description</td>
<td>Weather conditions directly influence the demand for electricity and natural gas and affect the price of energy commodities. In addition, severe weather such as hurricanes and winter storms can be destructive, causing outages and property damage that require incurring additional expenses. For example, in October 2018, Tropical Storm Michael impacted 636,369 of Dominion Energy’s customers in the North Carolina and Virginia service areas. These damages from weather events can impact our ability to provide adequate utility services to our customers.</td>
</tr>
<tr>
<td>Time horizon</td>
<td>Long-term</td>
</tr>
<tr>
<td>Likelihood</td>
<td>Very likely</td>
</tr>
<tr>
<td>Magnitude of impact</td>
<td>High</td>
</tr>
<tr>
<td>Are you able to provide a potential financial impact figure?</td>
<td>Yes, a single figure estimate</td>
</tr>
<tr>
<td>Potential financial impact figure (currency)</td>
<td>1464300000</td>
</tr>
<tr>
<td>Potential financial impact figure – minimum (currency)</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Potential financial impact figure – maximum (currency)</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>

**Explanation of financial impact figure**
In addition to the $917.8 million in Grid Transformation Plan costs described in the “Cost of Management” under Risk 1 (above), the Company will incur considerable expenses from the Strategic Underground Program (SUP). The Company’s capital costs for Phase 1 of the SUP were $138.5 million and Phase 2 $105.2 million. Phase 3 of the program had a capital cost of $179.8 million, and Phase 4, now under review by Virginia regulators, is expected to have capital costs of approximately $123 million for the conversion of 246 miles of overhead tap lines. In total, the financial impact of these is equal to $1,464,300,000.

**Management method**
The Company is moving to strengthen its electric system in Virginia and improve its ability to withstand the impact of severe weather such as hurricanes. These measures include the Grid Transformation Plan, which will increase distribution system reliability and resiliency, reducing the number and duration of outages through self-healing grid components and faster Company
response to disruptions, as well as the Strategic Underground Program (SUP). The Company is also under a Virginia legislative mandate to develop and propose $870 million in energy-efficiency programs through 2028; these programs would help hold down system demand, especially in periods of intense heat or cold, and help customers manage and reduce their overall energy usage. For example, the SUP has already been carried out throughout our Virginia service areas to manage the impacts of severe weather. By 2028, we plan to bury 4,000 miles of distribution lines that are prone to weather-related outages. Along with the $870 million mentioned above, the capital costs for Phase 1 of the SUP were $138.5 million and Phase 2 $105.2 million. Phase 3 of the program had a capital cost of $179.8 million, and Phase 4, now under review by Virginia regulators, is expected to have capital costs of approximately $123 million for the conversion of 246 miles of overhead tap lines. The sum of these costs is equal to the cost of management of $1,416,500,000.

Cost of management
1416500000

Comment
In addition to the Grid Transformation Plan costs described in the “Cost of Management” under Risk 1 (above), the Company will incur considerable expenses from the Strategic Underground Program.

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Risk 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where in the value chain does the risk driver occur?</td>
<td>Direct operations</td>
</tr>
<tr>
<td>Risk type</td>
<td>Transition risk</td>
</tr>
<tr>
<td>Primary climate-related risk driver</td>
<td>Policy and legal: Other</td>
</tr>
<tr>
<td>Type of financial impact</td>
<td>Increased operating costs (e.g., higher compliance costs, increased insurance premiums)</td>
</tr>
</tbody>
</table>

**Company-specific description**
Changes to federal, state, and local environmental laws and/or regulations, including those related to climate change; the tightening of emission standards for GHGs and other substances; more extensive permitting requirements; and the regulation of additional substances could result in additional closures of our Company's fossil-fired units in Virginia. For example, our Mecklenburg Power station closed in 2019 because it was no longer economical to operate in Virginia. The Company is committed to reducing GHGs. We have set several emissions reductions targets including a 60% reduction of our carbon intensity by 2030 from 2000 levels and a 50% reduction in our methane intensity by 2030 from 2010 levels, a reduction of our carbon emissions by 55% by 2030 from 2005 levels and 80% reduction by 2050 from 2005 levels, and a reduction of our methane emissions by 50% by 2030 from 2010 levels.

**Time horizon**
Current

**Likelihood**
Virtually certain

**Magnitude of impact**
High

**Are you able to provide a potential financial impact figure?**
Yes, an estimated range

**Potential financial impact figure (currency)**
<Not Applicable>

**Potential financial impact figure – minimum (currency)**
5810000000

**Potential financial impact figure – maximum (currency)**
10370000000

**Explanation of financial impact figure**
According to Dominion Energy Virginia’s 2018 Compliance Plan, the net present value (NPV) through 2043 of costs associated with compliance with federal or state carbon regulations under four different scenarios ranged from $5.81 billion to $10.37 billion. The NPV results include the following assumptions: solar integration costs, retirement write-offs, and RGGI adjustments. The NPV costs are broken down as so: First, the PLEXOS model provides a total system cost as an output and additional line items are added to the total system cost to come up with a total NPV cost (ranging from $31.23 to $35.79 billion) for the alternative plans. They include
Demand Side Management (DSM) Existing and Proposed, DSM Related to $870 M, Grid Transformation Plan, SUP, and Transmission Undergrounding Pilot costs. The change between the total NPV costs of these alternative plans and our No CO2 Tax plan ($25.42 billion) provide the estimated financial impact range noted above.

Management method
To manage this transition risk, the Company is committed to reducing GHGs from its electric generating fleet and converting 25% of its light duty fleet to electric or plug-in hybrid by 2025. Changes in the generating fleet included an expanded use of cleaner-burning natural gas; an expansion of its renewable generation, exemplified by the growth of its solar capacity in Virginia and North Carolina from near zero to approximately 1,998 MW in service or under development over the last four years; and continued reliance on zero-emissions nuclear energy, providing enough electricity to power about 499,500 homes for Virginia customers. As an example, the Company recently committed to the procurement or development of an additional 3,000 MW of solar and wind-powered generation in Virginia by early 2022. The net present value (NPV) through 2043 of costs associated with compliance with federal or state carbon regulations under four different scenarios ranged from $5.81 billion to $10.37 billion. The NPV costs are broken down as so: First, the PLEXOS model provides a total system cost as an output and additional line items are added to the total system cost to come up with a total NPV cost of $35.79 billion for the highest alternative plan. The change between the total NPV costs of this plan and our No CO2 Tax plan ($25.42 billion) provide the management cost of $10.37 billion.

Cost of management
10370000000

Comment
On April 22, 2019, we announced an additional 350 MW of solar over 6 facilities across Virginia and North Carolina either operational or under development under a dedicated contract to serve Facebook. These solar facilities will contribute to the 3,000 MW goal referenced in the above paragraph.

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

Type of financial impact
Reduced exposure to future fossil fuel price increases

Company-specific description
Renewable energy is an important component of a diverse and reliable energy mix that helps to mitigate the environmental aspects of energy production. Dominion Energy helped develop and support significant legislation which was ultimately signed into law in 2018 named the “Grid Transformation and Security Act.” The legislation declares 5,500 MW of solar and wind energy including specific carve out for offshore wind and rooftop solar as being in the public interest. It also includes more than one billion dollars of future energy efficiency filings and shareholder funded programs to provide bill payment assistance and free weatherization to low income customers. As a result of the legislation, Dominion Energy has since publicly committed to having 3000 MW of renewable energy operational or under development in Virginia by 2022. The legislation called for significant amounts of renewable energy and since the legislation became law, the Company received approval for over 200 MW of solar as well as an offshore wind pilot program, the first of its kind in the industry. The offshore wind project was approved in November 2018. The project is unique for a
number of reasons including the fact that it is 27 miles off of Virginia, making it the first offshore wind installation in US federal waters and the first offshore wind project proposed by a utility. Nationally, Dominion Energy has nearly 3,400 MW of renewable generating capacity in operation or under development in nine states, including offtake agreements for Virginia’s utility customers. Both Virginia and North Carolina have passed legislation setting targets for renewable power. Backed by a $1 billion investment, Dominion Energy has grown its solar fleet in Virginia and North Carolina over the past two years from near zero to about 1.998 MW in service or under development over the last four years; and continued reliance on zero-emissions nuclear energy, providing enough electricity to power about 499,500 homes for Virginia customers. The Company has also announced its intention to seek additional relicensing from the U.S. Nuclear Regulatory Commission for all four of its reactors in Virginia at Surry and North Anna power stations, keeping them in operation into the second half of the 21st century.

Time horizon
Long-term

Likelihood
Virtually certain

Magnitude of impact
High

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

Potential financial impact figure (currency)
6000000000

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

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

Explanation of financial impact figure
The financial impact amount provided is conservative, and was publicly communicated in the Company’s March 25, 2019 Investor Day presentation. The estimate provided includes costs but not benefits, and represents projected spending for the five-year period 2019-2023. The $6.0 billion amount includes approximately $3.7 billion towards the development of 3,000 MW of solar generation approximately $1.1 billion towards the development of over 850 MW of offshore wind generation and approximately $1.2 billion related to relicensing of 3,348 MW of nuclear generation. It is expected that these investments in renewable development and zero carbon emissions nuclear generation will result in benefits through reduced spending on fossil fuels and less vulnerability to fuel price spikes in the future. Additionally, Dominion Energy may experience increased revenue, as the renewable energy will be sold back to customers.

Strategy to realize opportunity
Renewable resources are becoming a more cost-effective means of meeting customer energy demands. The continuing development of solar photovoltaic technology has made this type of generation cost-competitive with other, more traditional forms of generation. This has been recognized by the Company’s IRP for serving its Virginia and North Carolina electric utility customers; by its commitment to have in operation or under development 3,000 MW of new solar and wind capacity in Virginia by 2022; and by its exploration of the potential for offshore wind through the Coastal Virginia Offshore Wind (CVOW) project, under development jointly with Ørsted Energy. The Company also has a commitment to seek U.S. Nuclear Regulatory Commission relicensing of its four Virginia reactors, potentially keeping them in operation into the second half of the 21st century. Concurrently, the Company announced the shutdown of older fossil-fueled units at six Virginia sites by 2021 or 2022. The estimate provided includes costs to realize the opportunity but not benefits, and represents projected spending for the five-year period 2019-2023. The $6.0 billion amount includes approximately $3.7 billion towards the development of 3000 MW of solar generation approximately $1.1 billion towards the development of over 850MW of offshore wind generation and approximately $1.2 billion related to relicensing of 3,348 MW of Nuclear generation.

Cost to realize opportunity
6000000000

Comment
The Company’s 2018 Compliance Plan for its Virginia and North Carolina electric service area calls for the addition of 4,720 MW of additional solar capacity by 2033. By 2043, four of the five alternative scenarios presented in the IRP would expand the Company solar fleet serving these customers by 7,200 MW. Moving aggressively, Dominion Energy on July 24, 2018 announced that it would commit to developing or procuring an additional 3,000 MW of solar and wind generation in Virginia by early 2022, enough capacity at peak output to supply the needs of 750,000 homes. The Company has also announced its intention to seek additional relicensing from the U.S. Nuclear Regulatory Commission for all four of its reactors in Virginia at Surry and North Anna power stations, keeping them in operation into the second half of the 21st century.
**Identifier**  
Opp2

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

**Opportunity type**  
Resource efficiency

**Primary climate-related opportunity driver**  
Use of more efficient production and distribution processes

**Type of financial impact**  
Other, please specify (Improved Resilience)

**Company-specific description**  
Our existing 5-year investment plan includes significant capital expenditures to upgrade or add new electric transmission and distribution lines, substations and other facilities to meet growing electricity demand within its service territory, maintain reliability, implement our Strategic Underground Program to minimize outage duration, and address environmental requirements. These enhancements are aimed at meeting our continued goal of providing reliable service and are intended to address continued population growth and increases in electricity consumption. An additional benefit will be added capacity to efficiently deliver electricity from the renewable projects now being developed or to be developed in the future, to meet our customers' preference for cleaner energy. These projects include our 2 solar facilities being developed in Surry County, VA with expected completion in December 2019. In July 2018, the Company presented a comprehensive plan to modernize its electric distribution grid in VA to regulators. The plan will improve electric reliability, provide additional security to protect the system from physical and electronic threats, improve the integration of renewable energy resources into the grid, and provide customers with more options for monitoring and managing their energy use. As an example in the 2018 IRP, the Company has reduced the rate of carbon dioxide emissions and has also implemented infrastructure improvements and improved operational practices to reduce the GHG emissions from our natural gas facilities. The Company is also pursuing additional construction or upgrade of regulated infrastructure in our natural gas businesses which includes replacement of aging infrastructure to boost reliability and reduce leaks across gas distribution assets. We have also made voluntary commitments in methane reduction initiatives as a founding member of the EPA Methane Challenge Program and continue to reduce methane emissions through several ongoing programs as part of these improvements. Since 2010, we've prevented more than 180,000 metric tons of methane from entering the atmosphere.

**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)**  
5350000000

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

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

**Explanation of financial impact figure**  
Potential financial impact of improved resilience is about $5.35 billion. This includes approximately $4.01 billion in transmission investments 2016-2022; proposed $917.8 million investment in grid modernization program 2019-2021; approximately $423 million in Strategic Underground Program, phases 1-3; and benefits from improved resiliency through lower operating and maintenance expenses, and reductions in environmental expenses including cost of carbon not yet quantified.

**Strategy to realize opportunity**  
The Company has undertaken numerous programs to improve the resiliency of its electric system. The improvements are designed to improve energy reliability, meet customer demand efficiently, and enable the system to better withstand inclement weather and physical and electronic threats. The improvements in transmission and distribution also will facilitate the integration of zero-emissions renewable resources into the electric grid. In line with this, the Company is committed to reducing greenhouse gas emissions, with 2,600 MW of solar currently in operation or under development. In December 2018, we set new targets to reduce our carbon intensity by 60% (from 2000 levels) and methane intensity by 50% by 2030 (from 2010 levels). The Company is moving
aggressively to reduce methane emissions from its natural gas system and is a founding member or leading participant of EPA's NgSTAR program, EPA's Methane Challenge, and the ONE Future Coalition. The costs for greater system resiliency include approximately $4.01 billion in transmission investments 2016-2022; proposed $917.8 million investment in grid modernization program 2019-2021; approximately $423 million in Strategic Underground Program, phases 1-3; and methane emission reduction programs that are still to be quantified. This cost to realize opportunity should be considered a very conservative estimate, as transmission and distribution investments and investments in carbon reduction will continue in the future.

Cost to realize opportunity
5350000000

Comment
Other targets were set in 2019 to reduce carbon emissions by 55% by 2030 and 80% by 2050, as well as methane emissions by 50% by 2030. We also strongly supported consensus bipartisan solar legislation in South Carolina in 2019 that was enacted by the General Assembly and allows regulators to set a value on customer solar generation, while relaxing limits on such generation. This legislation has nearly $1 billion in energy efficiency program offerings during the next 10 years.

Identifier
Opp3

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

Opportunity type
Resilience

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

Type of financial impact
Other, please specify (Energy Source)

Company-specific description
The Company, through its regulated Dominion Energy Virginia electric utility, will greatly expand energy-efficiency programming for all customers during the coming decade. The Grid Transformation and Security Act (GTSA) of 2018, by the Virginia General Assembly, required Dominion Energy Virginia to propose $870 million in new energy-efficiency programming by July 2028. At least five percent of these programs must be designed to benefit low-income, elderly, and disabled persons. Dominion Energy, through its merchant generation business and its regulated electric utility, has also launched a major expansion of its renewable generation fleet, currently the nation’s fourth largest among owners of electric utilities. Renewable capacity owned or under development by the Company or secured through long-term contracts totaled approximately 3,400 MW. The Company is also fulfilling the growing customer demand for “green” energy through multiple programs, such as rate structures to allow customers to procure most or all of their usage from renewable resources and through the purchase of electricity generated by customer-owned distributed energy resources, such as rooftop photovoltaics. The GTSA also requires Dominion Energy Virginia to develop programs for the long-term strengthening and transformation of its electric distribution grid. The Company submitted its initial plans on July 24, 2018 for this transformative effort to the Virginia State Corporation Commission (SCC). In addition, Dominion Energy Utah has launch energy efficiency programs committing to work with customers to increase savings from energy efficiency by 50% by 2025, funding a NetZero home initiative and partnering with builders to create sustainable communities.

Time horizon
Medium-term

Likelihood
Very certain

Magnitude of impact
High

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

Potential financial impact figure (currency)
3797700000

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

Potential financial impact figure – maximum (currency)
<Not Applicable>
Explanation of financial impact figure
The estimated potential financial impact associated with energy sources is highly conservative and includes only programs and infrastructure either required by law or approved or under review by the Virginia SCC. These include energy-efficiency programming ($870 million); Greensville County Power Station ($1.3 billion); US-3 solar projects in Surry County, VA ($409.9 million); Coastal Virginia Offshore Wind project ($300 million); and Phase I of Grid Transformation Plan ($917.8 million) for a total of $3,797,700,000. Costs will increase as additional projects are built and programs expanded. However, there is also anticipated increase in revenue as a result of selling renewable energy back to our customers.

Strategy to realize opportunity
Dominion Energy Virginia currently conducts an annual integrated resource planning process to produce its IRP or IRP updates filed with the Virginia SCC and the North Carolina Utilities Commission. The IRP is a comprehensive review of all methods of meeting customer energy needs through supply-side and demand-side programming. The Company also strongly supported enactment of the Virginia GTSA during the 2018 session of the state legislature and is working to fulfill the goals and mandates of the Act. For instance, the GTSA mandates that the Company utilize a stakeholder process in developing the proposed energy-efficiency programs required by the statute. The estimated cost to realize this opportunity is highly conservative and includes only programs and infrastructure either required by law or approved or under review by the Virginia SCC. These include energy efficiency programming ($870 million); Greensville County Power Station ($1.3 billion); US-3 solar projects in Surry County, VA ($409.9 million); Coastal Virginia Offshore Wind project ($300 million); and Phase I of Grid Transformation Plan ($917.8 million) for a total of $3,797,700,000. Costs will increase as additional projects are built and programs expanded. For example, the estimated cost of new solar photovoltaic generation (expressed in 2017 dollars) is $1,436/kW, according to the Company’s 2018 Compliance Filing.

Cost to realize opportunity
3797700000

Comment

C2.5

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

<table>
<thead>
<tr>
<th>Impact</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Products and services</td>
<td>Impacted</td>
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<tr>
<td></td>
<td>Renewable energy is an important component of a diverse and reliable energy mix that helps mitigate the environmental aspects of energy production. Nationally, Dominion Energy has nearly 3,400 MW of renewable generating capacity in operation or under development in nine states, including offtake agreements for its electric utility customers. Both Virginia and North Carolina have passed legislation setting targets for renewable power. Backed by a $1 billion investment, Dominion Energy has grown its solar fleet in Virginia and North Carolina over the past two years from near zero to about 1.998 MW in service, in construction or under development. Additionally, we have four (4) biomass facilities and one offshore wind facility, Coastal Virginia Offshore Wind (CVOW), in operation or under development. Renewable energy is not always available 24 hours a day, 7 days a week and this can have a high impact on our Company’s ability to provide services to the customers we serve. Natural gas (NG) power generation stations may be built to provide backup and reliability to renewable energy NG storage, transmission, and distribution services support NG generation units built to replace power generation being retired (e.g., coal). In anticipation of future impacts from the opportunities associated with renewable energy, we are modernizing the grid to allow for growth of renewables in the future; offering customers expanded energy-efficiency programs and additional renewable energy options; substituting higher-emitting generation with zero-carbon (renewable) or lower carbon (natural gas, especially combined cycle) generation; and improving resiliency and reliability of power delivery to customers in order to avoid lost sales and significant storm restoration costs. The magnitude of the impact of these investments is high for the products and services we provide to our customers.</td>
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<tr>
<td>Supply chain and/or value chain</td>
<td>Impacted</td>
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<td></td>
<td>Fluctuations in weather can have a negative impact on demand for the Company’s services and supply chain. For example, milder than normal weather can reduce demand for electricity and gas transmission and distribution services. In addition, severe weather, including hurricanes, winter storms, earthquakes, floods, and other natural disasters can disrupt operation of the Company’s facilities and cause service outages and production delays and property damage that require incurring additional expenses. An example of this impact on our business is the damage to electric infrastructure and power lines served by Dominion Energy as a result of Tropical Storm Michael which affected 636,369 Dominion Energy customers. This storm caused significant damage to various locations in Central Virginia, Gloucester/Northern Neck, Tidewater, and northeastern North Carolina. Changes in weather conditions can result in reduced water levels or changes in water temperatures that could adversely affect operations at some of the Company’s power stations. Furthermore, the Company’s operations could be adversely affected and their physical plant placed at greater risk of damage should changes in global climate produce, among other possible conditions, unusual variations in temperature and weather patterns, resulting in more intense, frequent, and extreme weather events; abnormal levels of precipitation; and for operations located on or near coastlines, a change in sea level or sea temperatures.</td>
</tr>
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Impact | Description
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Adaptation and mitigation activities | The risks associated with changes to federal, state, and local environmental laws and regulations, including those related to climate change, include the tightening of emissions limits for GHGs and other substances, more extensive permitting requirements, and the regulation of additional substances. The Company supports national and state climate change legislation that would provide a consistent, economy-wide approach to addressing this issue and is currently taking action to protect the environment and reduce GHG emissions while meeting the growing needs of our customers. Dominion Energy’s CEO and Business Units CEOs are responsible for compliance with the laws and regulations governing environmental matters, including GHG emissions. Dominion Energy’s Board of Directors receives periodic updates on these matters. As stated in the cover letter to Dominion Energy Virginia’s 2018 IRP, the Company believes that regulation of power station carbon dioxide (CO2) emissions is virtually assured in the future, either through new federal initiatives or through measures adopted at the state level. For instance, on May 27, 2019, the Virginia Department of Environmental Quality (DEQ) published a final rule limiting power station CO2 emissions by establishing a state cap-and-trade program for electric generating units in Virginia. The Virginia GTSA also sets goals and imposes mandates for renewable energy and energy efficiency. The act declares that development of 5,000 MW of large scaled utility-owned or operated solar and wind generation, 500 MW of small scale solar (1MW or less) interest, and 50 MW of rooftop solar in the Commonwealth by July 2028 is in the public interest. The Act also imposes significant energy efficiency and grid modernization mandates on the state’s utilities, which has a high magnitude of impact on Dominion Energy’s adaptation and mitigation activities. This act requires Dominion Energy to propose $870 million in such programs by July 2028 and also requiring the utility to submit plans for the transformation and modernization of its electric distribution system. Several states are evaluating adoption of LDAR (Leak Detection and Repair) programs beyond federal EPA requirements. Several voluntary LDAR programs have been launched across Dominion Energy gas infrastructure to proactively address and repair leaks beyond current regulatory requirements.
Investment in R&D | Renewable energy is an important component of a diverse and reliable energy mix that helps to mitigate the environmental aspects of energy production. As a result of this identified opportunity, our research and development investments in renewable energy include investments in solar technologies, offshore wind, and fuel cell technology. Significant expansion of energy efficiency programming offered to regulated electric utility customers in Virginia, under the Grid Transformation and Security Act (GTSA) requires $870 million in such initiatives be proposed by July 2028. The act declares that development of 5,000 MW of large scaled utility-owned or operated solar and wind generation, 500 MW of small scale solar (1MW or less) interest, and 50 MW of rooftop solar. It also includes more than one billion dollars of future energy efficiency filings and is currently taking action to provide bill payment assistance and free weatherization to low income customers. As a result of the legislation, Dominion Energy has publicly committed to having 3,000 MW of renewable energy operational or under development in Virginia by 2022. The legislation called for significant amounts of renewable energy and as a result in the six weeks since the legislation became law, the Company filed with the SCC approval for over 200 MW of solar as well as an offshore wind pilot program, the first of its kind in the industry. This offshore wind project was approved in November 2018. The GTSA mandates that Dominion Energy Virginia present plans for “electric distribution grid transformation” projects to the Virginia SCC. As defined by the Act, such projects include distribution infrastructure designed to facilitate the integration of renewable energy generation resources; measures to enhance grid reliability, security, energy efficiency, and customer service, including advanced metering infrastructure (AMI) and other intelligent grid systems; protective physical and cyber-security measures; and strengthening and hardening grid infrastructure, among others. This legislation will have a medium-high level of impact on the Company.
Operations | Dominion Energy’s existing five-year investment plan includes significant capital expenditures to upgrade or add new electric transmission and distribution lines, substations and other facilities to meet growing electricity demand within our Company’s service territory. Additionally, we are committed to maintaining reliability of our infrastructure through implementation of the strategic underground program to minimize outage duration and address environmental requirements. For example, we have 6,700 miles of transmission lines that serve our customers and we are investing to rebuild the 500KV loop to strengthen grid reliability in our service areas. These enhancements are primarily aimed at meeting our continued goal of providing reliable service and are intended to address both continued population growth and increases in electricity consumption. An additional benefit will be added capacity to efficiently deliver electricity from the renewable projects now being developed or to be developed in the future, to meet our customers’ preference for cleaner energy. The Company has also implemented infrastructure improvements and improved operational practices to reduce the GHG emissions from our natural gas facilities. In connection with our existing five-year investment plans, we are also pursuing the construction or upgrade of regulated infrastructure in our natural gas businesses. For years, we have focused on reducing lost and unaccounted for gas (LAUFG) rate. This annual calculated quantity of gas consisting of the sum of reported losses and the unaccounted-for gas is an expense for the pipeline. We have undertaken numerous programs to improve the resiliency of our electric system. The improvements are designed to improve energy reliability, meet customer demand efficiently, and enable the system to better withstand inclement weather and physical and electronic threats. The improvements in transmission and distribution also will facilitate the integration of zero-emissions renewable resources into the electric grid. The positive impact these risks and opportunities have on the Company’s operations is high.
Other, please specify | Please select

C2.6

(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.

<table>
<thead>
<tr>
<th>Relevance</th>
<th>Description</th>
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<tbody>
<tr>
<td>Relevance</td>
<td>Description</td>
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<td>------------------------</td>
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<tr>
<td>Revenues</td>
<td>Impacted Other factors may cause actual results to differ materially from those indicated in any forward-looking statement. These factors include: Changes to federal, state, and local environmental laws and regulations, including those related to climate change; the tightening of emission or discharge limits for GHGs and other substances; more extensive permitting requirements; and the regulation of additional substances. However, all of these risk factors can have a high impact on our revenue. On the other hand, implementation of Dominion Energy’s Strategic Underground Program provides an opportunity for enhanced and more reliable service, which may allow for increased revenue, as we are able to avoid the loss of electric service to customers even in the face of severe weather-related events. Therefore, we are able to avoid the loss of electric service to customers during severe weather-related events, resulting from climate change, which allows Dominion Energy to maintain revenue in the face of climate change impacts. There are also opportunities to replace higher carbon emissions with lower carbon (natural gas) facilities, which may also have high positive impact on our revenue in the long-run.</td>
</tr>
<tr>
<td>Operating costs</td>
<td>Impacted Other factors may cause actual results to differ materially from those indicated in any forward-looking statement. These factors include: cost of environmental compliance, including those costs related to climate change, and changes in implementation and enforcement practices of regulators relating to environmental standards and litigation exposure. The reliability of Dominion Energy’s service can have a high impact on operating costs, depending on the recovery of the grid in cases of severe weather-related events. Our Strategic Underground Program provides an opportunity for enhanced and more reliable service, which can positively impact operating costs, such as having a service that will allow for a decrease in maintenance costs in the long run. On the other hand, our merchant power business operates in a challenging market, which could adversely affect operations and future growth. Additionally, compliance with environmental regulations and maintenance of electricity infrastructure can highly impact operating costs. The success of Dominion Energy’s merchant power business depends upon favorable market conditions including the ability to sell power at prices sufficient to cover its operating costs. Should conditions not be favorable, for instance in the event of customer or natural disasters that impact the market, the operating costs to maintain our facilities may be highly impacted.</td>
</tr>
<tr>
<td>Capital expenditures / capital allocation</td>
<td>Impacted Analysis included in the Company’s 2018 IRP for its regulated electric utility in Virginia and North Carolina (Dominion Energy Virginia/Dominion Energy North Carolina) indicates that compliance with state or federal carbon regulations would require significant capital investments above those required to meet customer demand in the unlikely absence of any new regulation or restrictions on power station carbon emissions. The 2018 IRP indicated the net present value (NPV) through 2043 of costs associated with four alternative carbon regulation scenarios ranged from $5.81 billion to $10.37 billion than the NPV of the baseline “no carbon regulation” plan. The Company has already invested almost $1 billion in the expansion of its solar fleet in Virginia and North Carolina and future growth of generation powered by renewable energy also has significant impacts on capital costs. For example, the Coastal Virginia Offshore Wind project, a test of 12 MW of wind-powered generation off the coast of Virginia, includes anticipated capital expenditures of approximately $300 million. Additionally, construction of 240 MW of new solar capacity in Surry County, VA, submitted to the Virginia SCC for review and approval on July 24, 2018, has an estimated capital cost of approximately $410 million. Renewable energy is not always available 24 hours a day, 7 days a week, and is generally supported by natural gas power generation to ensure service reliability. Dominion Energy invests in infrastructure to support renewable energy and reliability. These investments result in a net carbon emissions reduction. Promotion of a “greener” energy future with lower carbon emissions is also one of the drivers behind the Company’s development of a Grid Transformation Plan (GTP) for its Dominion Energy Virginia affiliate, submitted to the Virginia State Corporation Commission on July 24, 2018. The estimated capital cost of Phase I of the Plan (2019-2021) is approximately $816.3 million, with proposed operations and maintenance expenses of $101.5 million. Among other benefits, the Company believes Phase I of the plan will help protect the environment by supporting the integration of renewable energy power. This is a high magnitude of impact on our capital expenditures/capital allocation.</td>
</tr>
<tr>
<td>Acquisitions and divestments</td>
<td>Impacted All five alternative plans presented in the Company’s IRP for its regulated electric utility affiliate in Virginia and North Carolina call for the retirement of 2,785 MW of fossil-fueled generation powered by older, less efficient coal, oil, and natural gas technology at six Virginia sites by 2021 or 2022. Additionally, three of the alternative scenarios in the IRP called for the potential retirement of an additional 1,445 MW of coal-fired generation in Virginia by 2025. The three alternative plans envision various forms of linkage to or participation in the Regional Greenhouse Gas Initiative (RGGI) by Virginia. All generation retirements presented in the alternative plans should be considered tentative, with a final decision made at a future date after further analysis. The alternative plans represent plausible paths forward for meeting customer demand under a variety of regulatory scenarios, ranging from the unlikely event of no future carbon dioxide regulations on power station emissions to various forms of state or federal carbon control initiatives. Dominion Energy has also placed several fossil fuel fired and generating units into cold reserve including: Bellemeade, Brevo, and Mecklenburg (April 2018), Chesterfield (Units 3 and 4 only) and Possum Point (Units 3 and 4 only - December 2018). All cold reserve units were permanently retired in March 2019. The Company operates and construction activities are subject to extensive federal, state and local environmental statutes, rules, and regulations relating to air quality, water quality, waste management, natural resources, and health and safety. Certain facilities have become uneconomical to operate and have been shut down, converted to new fuel types, or sold. In 2018, our Fairless and Manchester facilities where sold. These types of events could occur again in the future and result in a moderate-negative impact on our acquisitions and divestments. We expect that existing environmental laws and regulations may be revised and/or new laws may be adopted including regulation of GHG emissions which could have an impact on the Company’s business.</td>
</tr>
<tr>
<td>Access to capital</td>
<td>Impacted The Company operations and construction activities are subject to extensive federal, state, and local environmental statutes, rules, and regulations relating to air quality, water quality, waste management, natural resources, and health and safety. Compliance with these legal requirements, such as the Nuclear Regulatory Commission’s requirements for operation and maintenance of nuclear facilities or the Pipeline Safety Improvement Act, requires the Company to commit significant capital toward permitting, emission fees, environmental monitoring, installation and operation of environmental control equipment, and purchases of insurance for environmental events. Additionally, the Company could be responsible for expenses relating to remediation and containment obligations, including at sites where they have been identified by a regulatory agency as a potentially responsible party. Sites subject to such regulatory requirements include our 3 nuclear power stations: Millstone, North Anna, and Surry Power Stations, as well as our 6 coal-fired units. Expenditures relating to environmental compliance have been significant in the past and the Company expects that they will continue to have a high-negative impact in the future. The Company relies on access to short-term money markets and longer-term capital markets as significant sources of funding and liquidity for business plans with increasing capital expenditure needs, normal working capital, and collateral requirements related to hedges of future sales and purchases of energy-related commodities. Deterioration in the Company creditworthiness, as evaluated by credit rating agencies or otherwise, or declines in market reputation either for the Company or their industry in general, or general financial market disruptions outside of the Company control could increase their cost of borrowing or restrict their ability to access one or more financial markets.</td>
</tr>
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</table>
C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?
Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?
Yes, qualitative and quantitative

C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b

(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b)
Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.
Yes

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

Dominion Energy responded to an increased interest by our communities, employees, and investors to deliver clean and affordable energy by considering sustainability issues central to our business planning and long-term success. The Company’s overall long-term strategic planning overseen by the Board of Directors fully integrates climate-related issues into our environmental strategy. The Company is committed to continuing to be an industry leader, delivering safe, reliable, clean, and affordable energy while fully
complying with all applicable environmental laws and regulations. Additionally, we seek to build partnerships and engage with local communities, stakeholders, and customers on environmental issues important to them and us. We are dedicated to meeting our customers’ growing energy needs with innovative and sustainable solutions. It is our belief that sustainable solutions should strive to balance the interdependent goals of environmental stewardship and economic effects. The integrated strategy to meet these objectives consists of three major elements:

- Reduction of GHG emissions;
- Energy infrastructure modernization, including natural gas and electric operations; and
- Conservation and energy efficiency.

Our integrated business strategy has resulted in major strategic achievements, including setting targets focused on a reduction in GHG emission intensity. Over the past two decades, we have made changes to our generation mix and natural gas operations which have significantly improved environmental performance. The principal components of the strategy, which include initiatives that address electric energy production and delivery, natural gas storage, transmission and delivery, and energy management, are as follows:

- Expand our renewable energy portfolio, including solar, wind power, and biomass, to further diversify our fleet, meet state renewable energy targets and lower the carbon footprint;
- Pursue the extension of operating licenses of existing nuclear units which provide carbon-free generation;
- Evaluate effective energy storage, such as batteries and hydroelectric pumped storage, which help support a grid with increased renewables;
- Enhance conservation and energy-efficiency programs on both the electric and gas side of our businesses to help customers use energy wisely and reduce environmental impacts;
- Sell, close, place in cold reserve, or convert to cleaner fuels a number of coal-fired generation units owned by Dominion Energy;
- Evaluate behind-the-meter and rate design solutions and other business opportunities;
- Construct new electric and gas transmission infrastructure to modernize the grid, expand availability of cleaner fuel, reduce emissions, promote energy and economic security, and help deliver more green energy to population centers where it is needed most;
- Replace older distribution pipeline mains and services; and
- Implement and enhance voluntary methane mitigation measures through participation in the EPA’s Natural Gas Star and Methane Challenge programs and membership in the One Future Coalition, while continuing to evaluate business opportunities presented by a lower carbon economy and innovative technologies.

For years, we have focused on reducing our lost and unaccounted for gas (LAUFG) rate as part of our business strategy. LAUFG is an annual calculated quantity of gas consisting of the sum of reported losses and the unaccounted-for gas. More than five years ago, Dominion Energy set a strategic objective and joined the EPA’s Natural Gas STAR program, which emphasized best management practices (BMPs) to voluntarily reduce methane emissions and report those reductions. In 2016, we demonstrated industry leadership by becoming a founding member of the EPA’s Methane Challenge. In August 2018, Dominion Energy joined One Future as a founding member in an effort to reduce methane emissions across the entire natural gas value chain. In February 2019, Dominion Energy launched an industry-leading initiative to reduce methane emissions from our natural gas infrastructure by 50 percent over the next decade. Dominion Energy is achieving these goals primarily by reducing or eliminating gas venting during planned maintenance and inspections; replacing targeted infrastructure and equipment with new, lower emission equipment; and expanding leak detection and repair programs. For example, in 2018, Dominion Energy commissioned Chippewa Compressor Station #8 for storage operations. This was an $8 million capital upgrade as this unit replaced two 1950’s vintage units at Robinson Compressor Station. These initiatives will prevent more than 430,000 metric tons of methane from entering the atmosphere, the equivalent of taking 2.3 million cars off the road for a year or planting nearly 180 million new trees.
One of the most substantial business decisions we have made involves incorporating more renewable energy into our generation portfolio. Nationally, we have nearly 3,400 MW of renewable generating capacity in operation or under development in nine states, including offtake agreements for our Virginia utility customers. Both Virginia and North Carolina have passed legislation setting targets for renewable power. Dominion Energy is committed to meeting Virginia’s goals of 12% of base year electric energy sales from renewable power sources by 2022, and 15% by 2025, and North Carolina’s Renewable Portfolio Standard of 12.5% by 2021. Backed by a $1 billion investment, Dominion Energy has grown its solar fleet in Virginia, North Carolina, and South Carolina over the past two years from near zero to about 1,998 MW in service, in construction or under development.

The IRP evaluates the Company’s options representing plausible future paths for meeting the electric needs of customers. The plans reflect a transition to a lower emissions rate future for the Company, with renewable sources playing an increasingly important role in the Company’s generation fleet serving customers in Virginia and North Carolina. All of the plans presented in the 2018 Compliance Filing call for the potential development of 720 MW of additional solar capacity by 2033. By 2043, four of the Alternative Plans would expand the Dominion Energy Virginia solar fleet by 5,040 MW.

Our commitment to renewable energy and reducing greenhouse gas emissions is demonstrated by our commitment to have in operation or under development 3,000 MW of new solar and wind capacity in Virginia by 2022 and by our exploration of the potential for offshore wind through Coastal Virginia Offshore Wind (CVOW) project, which is currently being developed jointly with Ørsted Energy. We also recognize that nuclear power must play a major power generation role in a lower-carbon, lower emissions future. This is the prime factor in the Company’s commitment to seek U.S. Nuclear Regulatory Commission relicensing of its four Virginia reactors, potentially keeping them in operation into the second half of the 21st century.
(C3.1d) Provide details of your organization’s use of climate-related scenario analysis.

<table>
<thead>
<tr>
<th>Climate related scenarios</th>
<th>Details</th>
</tr>
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<tbody>
<tr>
<td>Other, please specify (PLEXOS model)</td>
<td>A climate-related scenario analysis is routinely utilized to develop Dominion Energy’s business strategies. Some examples of scenario analysis used by Dominion Energy are included in Dominion Energy’s annual IRP. All IRPs have presented a range of alternatives representing plausible paths forward for the Company to meet the future energy needs of its customers for the next 15-year period. The fifteen year forward time horizon is required by law in the Commonwealth of Virginia, one of the states in which we operate. Typically, each alternative plan represents a future generation and demand side resource expansion combination under different carbon regulation scenarios. The Company uses several computer simulation models to develop these resource expansion plans including the PLEXOS model (“PLEXOS”) which is a utility modeling and resource optimization tool. The PLEXOS model was used to develop the 2018 Plan over the 25-year period beginning in 2019 and continuing through 2043 (the “Study Period”), using 2018 as the base year. The 2018 Plan was based on the Company’s assumptions regarding load growth, commodity prices, economic conditions, environmental regulations, construction and equipment costs, demand-side management (“DSM”) programs, and several other regulatory and market developments that may occur during the Study Period. The PLEXOS model was used to develop a set of alternative plans that represent plausible future paths forward considering the major drivers of future uncertainty. The Company developed these alternative plans in order to test different resource strategies against plausible scenarios that may occur given future market and regulatory uncertainty. PLEXOS developed optimized resource plans based on the total utility costs over the Study Period while simultaneously adhering to other market drivers, such as price forecasts derived from possible carbon regulations modeled in alternative plans. The PLEXOS model was also used in the 2018 IRP for Retire/Co-Fire/Repower Analysis. This analysis was focused on the Company’s coal-fired and heavy oil-fired facilities and assessed the cost to customers of the retirement, co-firing natural gas, and repowering of these facilities to exclusively burn natural gas. The analysis was performed using the PLEXOS model and assumed CO2 limitations and market forecasts consistent with three scenarios: No CO2 Tax, RGGI, and the Federal CO2 Program. The 2018 IRP presents five alternative plans based on the analysis and is designed to meet the energy demands of customers in the future under different carbon regulation scenarios. While these plans differ based on the carbon regulation scenarios evaluated, they do share several major common elements. Under all five plans, solar generation is becoming an increasingly important source of generation, with all five plans calling for the development of 4,720 MW of additional solar capacity by 2033. All five plans also called for the retirement of 2,785 MW of generation powered by older, less efficient coal, oil, and natural gas technology by 2021 or 2022 at six Virginia sites. As a result of this analysis, generating units put into cold reserve in 2018 included units at the following facilities: Bellemeade, Bremo, and Mecklenburg (April 2018); and Chesterfield and Possum Point (December 2018). These units were permanently retired in March 2019. In addition to the annual IRP, Dominion Energy also utilizes scenario analysis to evaluate other climate plans that may be less plausible as the scenarios included in the IRPs. For example, the Company is currently evaluating a generation portfolio of the future in AUOR/PLEXOS that would require the Company to adhere to a net-zero carbon standards. These types of evaluations also provide insight to the products and services that will be required by the Company’s Natural Gas Infrastructure Group.</td>
</tr>
<tr>
<td>2DS</td>
<td>We conducted a 2-degree scenario analysis and developed the Climate Report in November of 2018 with the help of a third party. The report includes an analysis of scenarios that could arise from the Paris Accord 2-degree proposal. In addition, we describe corporate governance associated with climate issues and risks and opportunities for the business associated with a lower carbon economy. The 2-degree scenario analysis of our Company’s current generation and future plans generated additional information relative to current and future climate-related risks and opportunities than business-as-usual planning. The assessment included the impact of a 2-degree scenario on the Company's full portfolio of power generation assets through 2050. The scenarios and time horizons selected for this analysis were intended to complement the scenarios considered in the 2018 Integrated Resource Plan for the Company's regulated generation assets and include our entire generation fleet, including our merchant generation assets. Scenarios were selected based on feedback from shareholder engagements, guidance from the TCFD “Technical Supplement: The Use of Scenario Analysis in Disclosure of Climate-related Risks and Opportunities” for two-degree analysis, the IEA – WEO 2017 “Sustainable Development Scenario”, IEA-WEO 2016 “450 ppm scenario” and peer benchmarking. Two scenarios were modeled at the national level and included power sector wide reductions from a 2005 baseline by 2050. Assumptions included projections as to how electric load would be impacted from the electrification of the transportation sector, future generation technologies, and other sectors of the economy would cut emissions in alignment with the energy sector. One of the findings from this analysis estimated that the Company would need to invest $15 billion in zero-carbon generation and $21 billion under the 80 percent scenario.</td>
</tr>
</tbody>
</table>

C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e
Dominion Energy submits an annual IRP, which presents multiple plans that demonstrate pathways to transition to a lower GHG future, based on different scenarios. The 2018 IRP reflects the transition to a lower emissions rate future. The Company has been a leader in reducing carbon emissions, having begun its transition to a generating fleet with lower carbon intensity well before the proposed federal and state carbon regulations considered in the 2018 IRP.

The reduction of GHG emissions is a major aspect of Dominion Energy’s environmental strategy. The Company’s integrated strategy has resulted in a reduction in GHG emission intensity. Over the past two decades, the Company has made changes to the generation mix and natural gas operations which have significantly improved environmental performance. For example, our Power Generation business unit has significantly reduced both its carbon emissions and its carbon intensity while generating electricity with an increasingly clean portfolio. From 2000 through 2017, our carbon intensity decreased by 50%. As a result, we increased our carbon intensity reduction target to 60% in 2018 and methane intensity target to 50%. This strategy has also resulted in significant reductions of other air pollutants such as NOX, SO2, mercury, and also reduced the amount of coal ash generated and the amount of water withdrawn. The principal components of the strategy, which include initiatives that address electric energy production and delivery, natural gas storage, transmission and delivery, and energy management, are as follows:

- Expand Dominion Energy’s renewable energy portfolio, including solar, wind power, and biomass, to further diversify Dominion Energy’s fleet, meet state renewable energy targets and lower the carbon footprint;

- Pursue the extension of operating licenses of existing nuclear units which provide carbon-free generation;

- Evaluate effective battery solutions, such as hydroelectric pumped storage, which help support a grid with increased renewables;

- Enhance conservation and energy efficiency programs on both the electric and gas side of our businesses to help customers use energy wisely and reduce environmental impacts;

- Sell, close, place in cold reserve or convert to cleaner fuels a number of coal-fired generation units owned by Dominion Energy;

- Evaluate behind-the-meter and rate design solutions and other business opportunities;

- Construct new electric and gas transmission infrastructure to modernize the grid, to expand availability of cleaner fuel, to reduce emissions, to promote energy and economic security, and to help deliver more green energy to population centers where it is needed most;

- Replace older distribution pipeline mains and services; and

- Implement and enhance voluntary methane mitigation measures through participation in the EPA’s Natural Gas Star, One Future, and Methane Challenge programs; as well as membership in the One Future Coalition while continuing to evaluate business opportunities presented by a lower carbon economy and innovative technologies.

Renewable energy is an important component of a diverse and reliable energy mix that helps to mitigate the environmental impacts of energy production. Nationally, Dominion Energy has nearly 3,400 MW of renewable generating capacity in operation or under development in nine states, including offtake agreements for Virginia Power’s utility customers. Both Virginia and North Carolina have passed legislation setting targets for renewable power. Dominion Energy is committed to meeting Virginia’s goals of 12% of base year electric energy sales from renewable power sources by 2022, and 15% by 2025, and North Carolina’s Renewable Portfolio Standard of 12.5% by 2021. Backed by a $1 billion investment, Dominion Energy has grown its solar fleet in Virginia and North Carolina over the past two years from near zero to about 1,998 MW in service, in construction or under development.
(C4.1) Did you have an emissions target that was active in the reporting year?
Intensity target

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Scope
Scope 1

% emissions in Scope
100

Targeted % reduction from base year
60

Metric
Metric tons CO2e per megawatt hour (MWh)*

Base year
2000

Start year
2018

Normalized base year emissions covered by target (metric tons CO2e)
0.59

Target year
2030

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

% of target achieved
87.5

Target status
New

Please explain
2018 company-wide target of reducing carbon intensity of Electric Generation by 60% by 2030. This was set as we had achieved our target of 50% earlier than projected. In 2018, we achieved an emissions intensity of 0.28 MT CO2e/MWh, which represents a 52.5% reduction from our base year. Given our target of 60% reduction from base year, the 2018 52.5% reduction represents achievement of 87.5% of our intensity target.

% change anticipated in absolute Scope 1+2 emissions
50

% change anticipated in absolute Scope 3 emissions
0

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1a/b.

Target
Methane reduction target

KPI – Metric numerator
Metric tons CH4
**KPI – Metric denominator (intensity targets only)**
MWh

**Base year**
2010

**Start year**
2018

**Target year**
2030

**KPI in baseline year**

**KPI in target year**

**% achieved in reporting year**
42

**Target Status**
New

**Please explain**
In December 2018, Dominion Energy announced a company-wide target of reducing methane intensity by 50% by 2030

**Part of emissions target**
Yes

**Is this target part of an overarching initiative?**
Other, please specify (NG STAR & Methane Challenge Program)

---

**Target**
Methane reduction target

**KPI – Metric numerator**
Natural Gas blowdown volumes (mcf) avoided by pipeline pressure reductions, use of portable compression and hot tapping during planned maintenance activities

**KPI – Metric denominator (intensity targets only)**
Natural Gas blowdown volumes (mcf) that would have been emitted had these practices not taken place for planned maintenance activities

**Base year**
2017

**Start year**
2017

**Target year**
2021

**KPI in baseline year**
55

**KPI in target year**
50

**% achieved in reporting year**
100

**Target Status**
Underway

**Please explain**
The Dominion Energy Transmission team will reduce methane emissions from maintenance activities by at least 50 percent by 2021. The 2016 target is under re-evaluation. New procedures include reducing pipeline pressure before blowing down (this is the procedure where maintenance is based on first relieving pressure in the pipeline by releasing methane into the atmosphere), routing gas to a compressor or other systems for beneficial use, and using “hot taps.” (This is the ability to safely tap into a pipeline while it remains under pressure. The technology is a procedure that can only be done on newer pipelines.) Dominion Energy Transmission has also committed to installing low bleed or no bleed devices on all new construction and is using innovative design
and technology to reduce engine blowdowns. In Utah, Wyoming, and Idaho, all cast iron pipes were replaced in the 1980s and all bare steel pipe was replaced in the 1990s. Since the 2000s, the Company has been focused on replacing all reconditioned high-pressure pipe in high-consequence areas at an annual investment of $200 million. Dominion Energy Ohio and Dominion Energy West Virginia are implementing a pipeline replacement program for their mains and service lines and committed to replacing at least 1.5% of the unprotected steel and cast iron pipes every year by the end of 2021.

**Part of emissions target**
No

**Is this target part of an overarching initiative?**
Other, please specify (NG STAR & Methane Challenge programs)

---

**Target**
Other, please specify (Miles of pipeline upgraded)

**KPI – Metric numerator**
2018 replacement miles = 190 for DEOH and DEWV combined

**KPI – Metric denominator (intensity targets only)**
end of 2016 Baseline: 6,500 (for DEOH and DEWV)

**Base year**
2016

**Start year**
2016

**Target year**
2021

**KPI in baseline year**
3

**KPI in target year**
1.5

**% achieved in reporting year**
100

**Target Status**
Underway

**Please explain**
As part of the Methane Challenge, we committed to methane reduction targets through 2021. Dominion Energy Ohio and Dominion Energy West Virginia are implementing a pipeline replacement program for their mains and service lines and committed to replacing at least 1.5% of the unprotected steel and cast iron pipes every year by the end of 2021. In Utah, all cast iron pipes were replaced in the 1980s and all bare steel pipe was replaced in the 1990s. Since the 2000s, the Company has been focused on replacing all reconditioned high-pressure pipe in high-consequence areas at an annual investment of $75 million.

**Part of emissions target**
No

**Is this target part of an overarching initiative?**
Other, please specify (NG STAR & Methane Challenge programs)

---

**Target**
Energy productivity

**KPI – Metric numerator**
Miles of electric transmission lines

**KPI – Metric denominator (intensity targets only)**

**Base year**
2018

**Start year**
2018
Please explain
As outlined in our 2018 Sustainability report, we have set energy reliability targets, which include rebuilding 120 miles of electric transmission lines in 2018. As of December 31, 2018, we rebuilt 128 miles of electric transmission lines.

Part of emissions target
No

Is this target part of an overarching initiative?
Other, please specify (2018 Sustainability Report)

Target
Renewable electricity production

KPI – Metric numerator
MW of solar and wind under development or in operation

KPI – Metric denominator (intensity targets only)

Base year
2018

Start year
2018

Target year
2022

KPI in baseline year
0

KPI in target year
3000

% achieved in reporting year
56.6

Target Status
New

Please explain
As outlined in the Energy Diversity & Security section of our 2018 Sustainability Report, Dominion Energy is committing to having 3,000 MW of new solar and wind under development or in operation by 2022. In the past five years we have invested $3.5 billion in renewable generation and grown our solar fleet from zero to approximately 1,998 MW in service, in construction, or under development. In November 2018, we received VA SCC approval of an offshore wind pilot project – the second such project in the United States and the first to be owned by an electric utility.

Part of emissions target
No

Is this target part of an overarching initiative?
Other, please specify (2018 Sustainability Report)

Target
Renewable energy target including electricity, heat, steam and cooling
KPI – Metric numerator
Dekatherms of natural gas savings

KPI – Metric denominator (intensity targets only)

Base year
2017

Start year
2018

Target year
2018

KPI in baseline year

KPI in target year
950000

% achieved in reporting year
100

Target Status
New

Please explain
It is estimated that over 70,000 participated in the ThermWise program in 2018 with a natural gas savings of 950,000 Dth. An estimated $23 million was spent for energy efficiency programs. The savings were equivalent to more than 50,000 tons of CO2 avoided in 2018.

Part of emissions target
No

Is this target part of an overarching initiative?
Other, please specify (ThermWise)

Target
Methane reduction target

KPI – Metric numerator
Million cubic feet (MMcf)

KPI – Metric denominator (intensity targets only)

Base year
2017

Start year
2018

Target year
2021

KPI in baseline year

KPI in target year
280

% achieved in reporting year
100

Target Status
New

Please explain
Dominion Energy Transmission reduced methane emissions associated with maintenance on our Transmission Pipeline System by 55% in 2018. The reduction totaled 280 MMcf.

Part of emissions target
No
Is this target part of an overarching initiative?
Other, please specify (2018 Sustainability Report)

Target
Other, please specify (upgrade miles of Ohio pipeline system)

KPI – Metric numerator
Miles of aged bare steel, cast iron, wrought iron and copper pipe

KPI – Metric denominator (intensity targets only)

Base year
2018

Start year
2018

Target year
2021

KPI in baseline year
0

KPI in target year
5600

% achieved in reporting year
28.5

Target Status
New

Please explain
We will invest $200 million or more annually over the next two decades to upgrade about 5,600 miles of aged bare steel, cast iron, wrought iron, and copper pipe in our Ohio pipeline system — reducing methane emissions at the same time. More than 1,600 miles out of the total 5,600 miles of pipeline have been replaced and the remaining will continue to be upgraded. We are on track to continue our investment of $200 million annually.

Part of emissions target
No

Is this target part of an overarching initiative?
Other, please specify (energy reliability commitments)

C-OG4.2a

(C-OG4.2a) If you do not have a methane-specific emissions reduction target for your oil and gas activities or do not incorporate methane into your target(s) reported in C4.2 please explain why not and forecast how your methane emissions will change over the next five years.

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.

<table>
<thead>
<tr>
<th>Initiative type</th>
<th>Under investigation</th>
<th>To be implemented*</th>
<th>Implementation commenced*</th>
<th>Implemented*</th>
<th>Not to be implemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated annual CO2e savings in metric tonnes CO2e</td>
<td>2</td>
<td>13</td>
<td>4</td>
<td>29</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>916425</td>
<td>875223</td>
<td>400</td>
<td>2554606.2</td>
<td>0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Initiative type</th>
<th>Fugitive emissions reductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of initiative</td>
<td>Other, please specify (Implementation of Voluntary Best Management Practices (BMPs) to reduce methane emissions (gas loss) from natural gas operations under USEPA's Natural Gas STAR and Methane Challenge Program)</td>
</tr>
<tr>
<td>Estimated annual CO2e savings (metric tonnes CO2e)</td>
<td>349164.2</td>
</tr>
<tr>
<td>Scope</td>
<td>Scope 1</td>
</tr>
<tr>
<td>Voluntary/Mandatory</td>
<td>Voluntary</td>
</tr>
<tr>
<td>Annual monetary savings (unit currency – as specified in C0.4)</td>
<td>2182276</td>
</tr>
<tr>
<td>Investment required (unit currency – as specified in C0.4)</td>
<td>213413224</td>
</tr>
<tr>
<td>Payback period</td>
<td>&gt;25 years</td>
</tr>
<tr>
<td>Estimated lifetime of the initiative</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Comment</td>
<td>Dominion Energy has implemented various voluntary best management practices to reduce natural gas loss, and thus methane emissions, from our natural gas operations. These practices include: • Directed inspection, maintenance, and leak repair programs • Replacement of unprotected steel distribution pipeline mains and services • Replacement of natural gas-driven pneumatic devices and pumps with low or non-emitting devices • Recovery of compressor blowdown gas • Reducing transmission pipeline pressures prior to maintenance blowdowns • Replacing orifice meters with ultrasonic • Use of hot tapping • Capped emergency shut down testing • Installation of plunger lifts at production wells • Damage prevention programs to reduce cut-outs • Pressure telemetry to reduce the need for relief valves tank vent recovery units.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initiative type</th>
<th>Low-carbon energy installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of initiative</td>
<td>Solar PV</td>
</tr>
<tr>
<td>Estimated annual CO2e savings (metric tonnes CO2e)</td>
<td>26614</td>
</tr>
<tr>
<td>Scope</td>
<td>Scope 1</td>
</tr>
<tr>
<td>Voluntary/Mandatory</td>
<td></td>
</tr>
</tbody>
</table>
Voluntary Annual monetary savings (unit currency – as specified in C0.4) 0

Investment required (unit currency – as specified in C0.4) 930000000

Payback period >25 years

Estimated lifetime of the initiative Ongoing

Comment Solar Projects implemented in 2018: A total of 6 solar projects totaling 136.4 MW generating capacity: - Siler Solar: Chatham County, NC (4.5 MW); Mustang Solar: Robbins, NC (5 MW); Pecan Solar: Northampton County, NC (74.9 MW); UVA Hollyfield & Puller (32 MW); Montross Solar: Westmoreland County, VA (20 MW); On April 22, 2019, we also announced an additional 350 MW of solar over 6 facilities across Virginia and North Carolina either operational or under development under a dedicated contract to serve Facebook. These solar facilities will contribute to the 3,000 MW goal. Beyond 2019, two additional solar projects, Grasshopper Solar: Mecklenburg County, VA (80 MW) and Urban Grid Holdings: Surry County, VA (98 MW), have been approved and expected to be operational in 2020.

Initiative type Other, please specify (LEED Buildings)

Description of initiative <Not Applicable>

Estimated annual CO2e savings (metric tonnes CO2e) 30

Scope Scope 1

Voluntary/Mandatory Voluntary

Annual monetary savings (unit currency – as specified in C0.4) 5500

Investment required (unit currency – as specified in C0.4) 8900000

Payback period >25 years

Estimated lifetime of the initiative Ongoing

Comment New company office buildings are Leadership in Energy and Environmental Design (LEED)-certified by the U.S. Green Building Council and are constructed with low-water consumption landscaping and building fixtures. Construction is underway or completed for a number of buildings for LEED design standards: 600 Canal Place in Richmond, the Power Transmission Group Crew building in Dinwiddie, VA, and the Petersburg District Office. Construction was completed for the Greensville, VA Power Station administrative building, the Hampton Office Building and Garage, the Lima Office Building, and our Dominion Energy Transmission, Inc. Western Area Office Building.

Initiative type Other, please specify (Process Natural Gas utilization and Combined Heat and Power (CHP) utilization - Cove Point Savings)

Description of initiative <Not Applicable>

Estimated annual CO2e savings (metric tonnes CO2e) 1939288

Scope 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
No payback

Estimated lifetime of the initiative
>30 years

Comment
Combined Liquefaction Design Efficiency Reductions from Process Natural Gas utilization and Combined Heat and Power (CHP) utilization. During normal operation, the Cove Point auxiliary boilers, combustion turbines, and thermal oxidizer are designed to operate on process natural gas. This process natural gas would otherwise be flared as waste gas. The use of process natural gas as fuel, which replaces the need for pipeline natural gas combustion during normal operation reduces the CO2e emissions by 50%, as one-half of the amount of natural gas (process and pipeline) will be combusted. The Cove Point combustion turbines were designed for CHP operation as bottom cycle cogeneration units. Each combustion turbine utilizes turbine shaft horsepower to operate three (3) liquefaction compressors, while waste heat from the turbine is captured in the heat recovery steam generator to produce steam for electric generation and other plant purposes. This design reduces the need for a combustion turbine for each operation, essentially reducing the amount of combustion turbines required to operate the Cove Point Liquefaction Facility.

Initiative type
Low-carbon energy installation

Description of initiative
Natural Gas

Estimated annual CO2e savings (metric tonnes CO2e)
229009

Scope
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
58333333

Investment required (unit currency – as specified in C0.4)
1300000000

Payback period
>25 years

Estimated lifetime of the initiative
>30 years

Comment
The Greensville County Power Station began generating electricity in December 2018. Fueled by natural gas, it will use the latest generation of highly efficient combined-cycle technology to produce electricity with a cost of $1.3 billion. The station will have low-carbon intensity by using clean-burning natural gas and the best available control technology to reduce emissions. In its first year of operation, it is expected to provide up to $7 million in property taxes for Greensville County. Post-construction economic benefits are projected to amount to about $36 million annually. Over its expected 36-year life, the station will save customers about $2.1 billion. The station will have a staff of 49 employees.

Initiative type
Process emissions reductions

Description of initiative
New equipment

Estimated annual CO2e savings (metric tonnes CO2e)
Scope
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)
450000000

Payback period
>25 years

Estimated lifetime of the initiative
Ongoing

Comment
As part of the 2018 Grid Transformation Plan, the Company is seeking Virginia SCC concurrence with infrastructure programs including the initial three years of a five-year plan to complete the smart meter deployment of 2.1 million smart meters to streamline integration of renewables while ensuring safe and reliable service to customers.
(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Compliance with regulatory requirements/standards

The Companies are subject to costs resulting from a number of federal, state, and local laws and regulations designed to protect human health and the environment. These laws and regulations affect future planning and existing operations. They can result in increased capital, operating, and other costs as a result of compliance, remediation, containment, and monitoring obligations. Complying with these regulations drives us to increase investment in emissions reduction projects, such as our solar and offshore wind projects, and shut down existing high-emitting power stations.

Dedicated budget for energy efficiency

New Company office buildings are Leadership in Energy and Environmental Design (LEED)-certified by the U.S. Green Building Council and are constructed with low-water consumption landscaping and building fixtures. Construction is underway or completed for a number of buildings for LEED design standards: 600 Canal Place in Richmond, VA, the Power Transmission Group Crew Building in Dinwiddie, VA and the Petersburg District Office. Construction was completed for the Greenville, VA Power Station administrative building, the Hampton Office Building and Garage, the Lima Office Building, and our Dominion Energy Transmission, Inc. Western Office Building. Dominion Energy is also expecting to achieve LEED certification on its Brunswick Power Station Admin Building and Greensville Power Station Admin Building in 2019.

Dedicated budget for low-carbon product R&D

Research Partnerships: Dominion Energy partners with about a dozen Virginia colleges and universities, providing $1.7 million in funding for a variety of renewable energy and alternative technology research projects from 2013 through 2018. The projects include high-efficiency solar cells, advanced offshore wind technologies, and the integration of battery storage with solar distributed generation, among others. Additional Research and Development projects and investments are described in question C-EUI8.6.

Internal price on carbon

Dominion Energy typically utilizes a price for carbon to assess the cost of future generation portfolios. This price for carbon has a negative impact on assets that emit GHGs and a positive impact on lower emitting assets. Thus, Dominion Energy can assess the overall cost and value of its current and future asset portfolio in a consistent manner. The price is also applied to all business units with particular emphasis on the power generation business. Using a price for carbon allows Dominion Energy to quantify the cost impacts of CO2 emissions and allows for a “level playing field” when evaluating demand side resources of other zero or low emitting supply side resources. The price for carbon is used in all internal modeling of Dominion Energy’s current and future assets.

Internal incentives/recognition programs

Dominion Energy’s Annual Incentive Plan (“AIP”) provides a monetary reward to eligible employees based on the achievement of annual Company financial, business unit financial and individual operating and stewardship goals. All employees, including C-suite officers, who participate in the 2018 AIP have a portion of their AIP payout tied to the accomplishment of environmental goals which may be linked to climate change directly or indirectly. Dominion Energy’s sets a diverse suite of 2018 AIP Environmental Goals such as: 1) Execute Business Group Specific Enhanced environmental management system (EMS) Implementation Plans by end of 2018 2) Track reportable environmental events and establish environmental baselines for 2019 3) Incorporate environmental stewardship/pollution prevention/corporate responsibility target For the 2018 year, some AIP environmental goals under these pillars included the following:
- Using the Dominion Energy Environment and Sustainability (DEES) tracking system to track environmental compliance for January 1 to December 31, 2018, report emissions reductions under the EPA voluntary NG Star program, identifying action items to improve communications and/or training related to pipeline safety initiatives; conducting an environmental stewardship lesson with local schools; and increasing transparency of disclosures and investor communications related to sustainability targets. Our innovation contest (i.e., AIP) is used to promote innovative ideas and use of technology. In addition, to lead ideas being presented at the inaugural innovation expo in 2018, top ideas were given further resources to pursue implementation.

Employee engagement

We will continue to reward innovation to create a culture in which employees are encouraged to experiment. Retaining the attributes that have made us successful, we will place even more emphasis on innovation and customer focus. We are committed to looking out for disruptions to our industry and partnering with start-ups to infuse energy into our employees and processes. In 2018 we enhanced our innovation capability by forming a team consisting of strategists, designers, and coaches to foster innovation mindsets and skills. We also created opportunities for innovation through a series of immersive field experiences, employee summits, and our first innovation expo. We expanded our innovation tools by launching a company-wide crowdsourcing platform for ideas and began to create environments for rapid testing, prototyping, and experimentation.

Other

Dominion Energy believes that environmental sustainability, climate change included, is most successful when incorporated into a corporate-wide structure that ensures collaboration and participation across business units. For that reason, the Company formed the Innovation, Technology, and Sustainability (ITS) Council (the “ITS Council”) that is chaired by Dominion Energy’s CEO and includes members of the C-suite and several senior subject matter experts. The ITS Council has responsibility for oversight of initiatives that are intended to further our sustainability goals, including reductions in carbon and methane emissions for the Company and our customers. The Company also created the Environmental, Sustainability, and Governance Working Group (the “ESG Working Group” or “Working Group”), facilitated by our Corporate Governance and Compliance team, which in turn reports into the Company’s Executive Vice President, Chief Administrative & Compliance Officer, and Corporate Secretary. The Working Group is cross-functional and includes leaders from around the Company who oversee implementation of Dominion Energy’s ESG initiatives and disclosures. Responsibilities of this group include: Advising Dominion Energy’s senior leadership, including the ITS Council (referenced above) on the Company’s ESG policies, strategies, and programs; supporting the Dominion Energy Board of Director’s Sustainability and Corporate Responsibility Committee; sharing information regarding the company’s technology and policy initiatives; providing updates on stakeholder engagement activities; and recommending performance targets the Company may establish from time to time on various ESG criteria, monitoring progress against those goals, and providing the results to senior leadership.

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) 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**
Demand-Side Management (DSM) 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 (energy efficiency emissions reduction program)

**% revenue from low carbon product(s) in the reporting year**
9.2

**Comment**
Virginia Power's demand-side management (DSM) programs, implemented with Virginia Commission and North Carolina Commission approval, provide important incremental steps in assisting customers to reduce energy consumption through programs that include energy audits and incentives for customers to upgrade or install certain energy-efficient measures and/or systems. Currently, there are residential and non-residential DSM programs active in the two states. Virginia Power continues to evaluate opportunities to redesign current DSM programs and develop new DSM initiatives in Virginia and North Carolina. Dominion Energy Ohio offers two DSM programs, approved by the Ohio Commission, designed to help customers reduce their energy consumption. One program provides weatherization assistance to help income-eligible customers reduce their energy usage. Another program has been designed to help Dominion Energy Ohio's residential customers improve their homes' energy efficiency with a home energy assessment. Customers receive a report with recommendations on how to save energy. This program includes rebates and free installation of several energy-efficient products such as high-efficiency showerheads, programmable thermostats, or carbon monoxide detectors. Dominion Energy Utah, Dominion Energy Wyoming, and Dominion Energy Idaho offer an energy-efficiency program approved by the Utah and Wyoming Commissions designed to help customers reduce their energy consumption. This program promotes the use of energy-efficient appliances and practices to reduce natural gas usage. The program provides homeowners with energy-saving devices such as pipe insulation and low-flow shower heads as well as rebates on appliances and weatherization items. The program also offers new construction builders with rebates for installing high-efficiency equipment and offers commercial businesses with rebates on energy efficient equipment and retrofits. The return on investment was approximately 9.2% on expenditures for DSM programs in 2018.

**Level of aggregation**
Product

**Description of product/Group of products**
Dominion Energy Green Power – voluntary green pricing program in and around Virginia

**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 (voluntary contribution)

**% revenue from low carbon product(s) in the reporting year**
0

**Comment**
Purchasing Renewable Energy Credits (RECs) through the Dominion Energy Green Power program allows customers to claim the specific environmental benefits associated with the renewable energy supported. For a typical residential customer, the renewable energy generated through participation in the 100 Percent Option for one year will reduce carbon dioxide emissions by more than five metric tons — the amount of greenhouse gas reduction achieved by planting 193 trees, according to the U.S. EPA. Our program is certified by Green-e® Energy, the nation's leading independent consumer protection program for renewable energy sales. For our 120,000 customers in North Carolina, we support NC Green Power, which enables customers to add voluntary, tax-deductible contributions to their electric bills. These contributions are used to reduce carbon emissions and increase the production of renewable energy power supplies in North Carolina. In 2018, participation passed the 30,000-customer milestone.
**Description of product/Group of products**
Dominion Energy Solar 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 (renewable energy certificates)

**% revenue from low carbon product(s) in the reporting year**
0

**Comment**
Through June 2018, qualified homeowners and business customers in Virginia could participate in our five-year pilot Solar Purchase Program, which allowed customers to generate and sell electricity and solar Renewable Energy Certificates directly to Dominion Energy at a premium rate of 15 cents per kilowatt-hour. Participating customers would continue to purchase all of the electricity for their home or business from Dominion Energy on their current rate schedule. The Solar Purchase Program was limited to 3,000 kilowatts of installed capacity and is designed to help customers cover the cost of installing solar generation, while also promoting local clean energy production. The Dominion Energy Green Power Energy program directly supports these solar projects through the purchase and retirement of RECs produced by the Solar Purchase Program. Since the program’s inception in 2013, about 174 solar installations have been completed. These types of projects have generated more than 2.5 million kilowatt hours of clean energy and produced more than 2,500 RECs. Through the Solar Partnership Program, Dominion Energy constructed solar energy facilities on leased rooftops or other grounds of private businesses and public properties in Virginia. This multi-year pilot program was designed to increase our understanding of community-based solar energy by studying its impact and benefits while supporting the growth of this renewable resource in Virginia. We have 11 solar facilities either completed or under construction, with a total generating capacity of more than 7,700 kilowatts — enough to power about 1,900 typical homes at peak production. Solar Projects implemented in 2018: A total of 6 solar projects totaling 136.4 MW generating capacity: - Siler Solar: Chatham County, NC (4.5 MW); Mustang Solar: Robbins, NC (5 MW); Pecan Solar: Northampton County, NC (74.9 MW); UVA Hollyfield & Puller (32 MW); Montross Solar: Westmoreland County, VA (20 MW)

**Level of aggregation**
Product

**Description of product/Group of products**
Dominion Energy Paperless Billing Program

**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 (Customer Service)

**% revenue from low carbon product(s) in the reporting year**
0

**Comment**
Customers are reducing paper usage by choosing to participate in the Company’s paperless billing program, eBill. Nearly 43 percent of Virginia and North Carolina customers have chosen to receive their bill notification electronically. Customers can create on-line accounts to view and pay bills electronically and enroll in programs such as paperless billing, energy conservation, and the Dominion Green Power® Program. Customers are wanting to do business electronically and the Company is providing the channel and options to do so.

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

Routine facility-wide inspections are conducted at the power generation facilities to ensure equipment is maintained and operated in accordance with good air pollution control practices for minimizing emissions (which includes methane emissions). As a specific example of our methane reduction efforts, Dominion Energy regularly undergoes routine maintenance at all of our power generation facilities that consume gas, which is a total of 22 facilities, to minimize the amount of methane emissions and leakages. Standard operating procedures and best management practices are in place to ensure that our electric generation facilities are inspected for leaks and necessary repairs are made as soon as possible.

The facility-wide inspections vary, depending on the facility, but may include any of the following (including but not limited to):

- Visible stack emissions
- Fugitive emissions from natural gas piping components (valves and flanges)
- Odors
- Equipment
- Storage vessels/storage tanks

These observations are to ensure continued compliance with source-specific visible emission limitations, fugitive emissions, and equipment maintenance and repair. If leaks are detected, attempts to make repairs or replacements are conducted as soon as practicable.
(C-OG4.6) Describe your organization’s efforts to reduce methane emissions from your activities.

Experience has taught us that one of the most effective ways to reduce methane emissions is to upgrade older pipelines. In Ohio — our largest gas distribution market — we have been actively replacing more than 5,600 miles of bare steel mains since 2008. As part of the Methane Challenge we are planning to reduce methane emissions by investing $200 million or more annually over the next two decades to upgrade aged bare steel, cast iron, wrought iron and copper pipe in our Ohio pipeline system — expanding on the $1.4 billion investment we have already made to replace more than 1,600 miles of pipeline in the Buckeye State. In 2016, we began to grow a similar program we created in West Virginia, and plans call for an additional $58 million investment there over the next two years. On the high pressure transmission side of our business, we are reducing emissions in the Methane Challenge by relieving pressure before conducting pipeline maintenance. The Dominion Energy Transmission team will reduce methane emissions from our natural gas infrastructure by at least 50 percent by 2030. New procedures include reducing pipeline pressure before blowing down (this is the procedure to allow re-routing of gas to lower pressure lines/uses to reduce pressure before venting remaining pressure prior to maintenance) routing gas to a compressor or other systems for beneficial use, and using “hot taps.” This is the ability to safely tap into a pipeline while it remains under pressure. The technology is possible only on newer pipelines. We also plan to expand leak detection and repair programs. Over the last decade, Dominion Energy has implemented tools and techniques, such as the use of infrared cameras, to identify such minor emission sources. The Company is now expanding these programs across every part of its system — from production, processing and storage to transmission and distribution. Dominion Energy Transmission continues to reduce methane emissions from maintenance blowdowns by greater than 50% per year. A tracking system is used to share best practices for methane reduction across organizations and promote leveraging of best practices.

In Utah — our newest gas distribution market — we will reduce methane emissions under the Methane Challenge through a new program to prevent excavation damage of pipelines. Dominion Energy Wexpro will install new air compressors and air dryers to 31 devices at Canyon Creek and Church Buttes, eliminating 46,000 MCF gas lost and related emissions. We are proud that Clean Cities recognized Dominion Energy as one of the top Idle-Free businesses in Utah in 2018. Here, all cast iron pipe was replaced in the 1980s; all bare steel pipe was replaced in the 1990s. Since the 2000s, the Company has been focused on replacing all reconditioned high-pressure pipe in high-consequence areas at an annual investment of $75 million.

Dominion Energy has recently challenged operations to find additional voluntary measures to reduce methane emissions even further. We launched new voluntary initiatives to achieve additional reductions over the next 5 years (in addition to the prior voluntary programs of EPA’s NgSTAR and Methane Challenge). These initiatives, referred to as ‘Methane Million’ are expected to prevent approximately 1.3 million (MMT) CO2e emissions over the next 5 years.

Dominion Energy is also working to bring more renewable natural gas onto our own system and aims to meet 4% of our gas distribution customers’ needs with RNG by 2040.

Additionally, in August 2018, Dominion Energy joined One Future Coalition as a founding member. One Future coalition is a unique coalition of leading companies who are working together to reduce methane emissions across the natural gas supply chain, with a goal to lower emissions to 1% by 2025.

COG4.7

(C-OG4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?

Yes

C-OG4.7a
(C-OG4.7a) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.

Dominion Energy has implemented various voluntary best management practices to reduce natural gas loss, and thus methane emissions, from our natural gas operations. These practices include: • Directed inspection, maintenance, and leak repair programs • Replacement of unprotected steel distribution pipeline mains and services • Replacement of natural gas-driven pneumatic devices and pumps with low or non-emitting devices • Recovery of compressor blowdown gas • Reducing transmission pipeline pressures prior to maintenance blowdowns • Replacing orifice meters with ultrasonic • Use of hot tapping • Capped emergency shut down testing • Installation of plunger lifts at production wells • Damage prevention programs to reduce cut-outs • Pressure telemetry to reduce the need for relief valves, tank vent recovery units

Dominion Energy implements both regulatory and voluntary programs to periodically scan for, locate, evaluate, and fix fugitive leaks. Leak detection ranges from 10,000 ppm under the GHGRP to 500 ppm under the Subpart OOOOa program. At Dominion Energy facilities, leaks not required to be surveyed or fixed by regulation, are surveyed and fixed within 30 days as a voluntary Best Management Practice, or put on Delay or Repair (DOR) to ensure adequate parts and labor are available, and to minimize station blowdown emissions for maintenance.

A unique LDAR program is implemented at Dominion Energy’s Cove Point LNG facility that is more stringent in frequency, identification level, and repair provisions. The Cove Point LNG program is a mesh of Maryland VOC LDAR, which involves daily AVO requirements, and the Texas TCEQ 28 LAER program, using EPA Alternative Work Practice for optical camera use in addition to annual Method 21. The program requires leak repairs within 15 days, and a first attempt at repair within five days. Due to the large number of components to be surveyed, LDAR is conducted at least twice a month daily in order to capture all components quarterly.

Federal or state-required Leak Detection and Repair (LDAR) programs, requires methodologies that involve scanning for leaks using an optical gas imaging (OGI) cameras and/or vapor analyzers, and then fixing the leaks on a specified schedule. LDAR, as required under USEPA’s New Source Performance Standard (NSPS), Subpart OOOOa, is required at approximately 17% of our transmission and storage compressor stations, which represents new or modified facilities as defined under the NSPS, and 100% of our processing facilities. A minimum of 20% of our metering and regulating stations undergo leak detection and repair every year encompassing 100% over a rolling five-year period. The predominant frequency of LDAR inspections is quarterly, although a small number are semiannual and/or annual. Regarding DE-Wexpro production wells, 100% had at least one annual LDAR inspection, unless the well was not producing or was shut in. The LDAR methodology on the wells included monitoring via an infrared OGI camera, with an occasional EPA Method 21 spot check. The USEPA greenhouse gas reporting program requires annual leak detection on approximately 30% of transmission and storage compressor stations.

Self-assessments are conducted on a routine basis to confirm continued compliance at each of our stations subject to state and federal regulations. Training, self-assessment, and overall environmental compliance extend to components of our value chain through specific systems such as contractor training and environmental due diligence during asset acquisition. We have an Environmental Alert process to notify groups with similar processes quickly when a gap is identified. This has had a profound impact on our ability to react quickly and learn from each other. As part of our environmental management system we create environmental compliance plans, which list out all environmental compliance requirements and the compliance methodologies that are in place for such requirements. We track reportable environmental events (REEs) and perform root cause analysis to prevent REEs from recurring. A REE is a permit deviation, regulatory deviation, environmental release or other environmental event that was under operational control of Dominion Energy or contractor and must be reported to a regulatory or land management agency.

C-OG4.8

(C-OG4.8) If flaring is relevant to your oil and gas production activities, describe your organization’s efforts to reduce flaring, including any flaring reduction targets.

The Company does not have a flaring reduction goal. While somewhat relevant to our organization, flaring is not a significant practice at Dominion Energy, making up less than one tenth of one percent of total GHG emissions corporate-wide, with one exception. At our LNG Import/Export facility, flaring is used to reduce methane emissions. At that facility the need for flaring is reduced by the use of process gas for fuel and combined cycle technology.
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 2000

Base year end
December 31 2000

Base year emissions (metric tons CO2e)
42619300

Comment

Scope 2 (location-based)

Base year start
January 1 2000

Base year end
December 31 2000

Base year emissions (metric tons CO2e)
239732

Comment
eGRID 2000

Scope 2 (market-based)

Base year start
January 1 2000

Base year end
December 31 2000

Base year emissions (metric tons CO2e)
239732

Comment
Location based Scope 2 emissions used as proxy for market-based.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

The Climate Registry: Electric Power Sector (EPS) Protocol
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)
27816676

Start date
January 1 2018

End date
December 31 2018

Comment
Power Gen, System and Merchant, equity share/ownership based, combustion emissions only

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
Location based Scope 2 emissions used as proxy for market-based

C6.3

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

Reporting year
Scope 2, location-based
53898

Scope 2, market-based (if applicable)
53898

Start date
January 1 2018

End date
December 31 2018

Comment
(Power Gen, System Electricity Usage, based on FERC Form 1, page 401a, Line 26) (Emission factors from EPA's eGRID). Location based Scope 2 emissions used as proxy for market-based.

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) 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.

<table>
<thead>
<tr>
<th>Source</th>
<th>Relevance of Scope 1 emissions from this source</th>
<th>Relevance of location-based Scope 2 emissions from this source</th>
<th>Relevance of market-based Scope 2 emissions from this source (if applicable)</th>
<th>Explain why this source is excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Generation (Scope 1)</td>
<td>No emissions excluded</td>
<td>Emissions are relevant and calculated, but not disclosed</td>
<td>Emissions are not relevant</td>
<td>Scope 2: Lack of available electricity usage data for merchant power stations and miscellaneous facilities (warehouses, satellite offices, etc.) outside of Virginia.</td>
</tr>
<tr>
<td>HFC's</td>
<td>Emissions are not relevant</td>
<td>Emissions are not relevant</td>
<td>Emissions are not relevant</td>
<td>Incomplete data availability; Emissions not material to organization. Our analysis shows that HFCs make up less than 5% of our scope and therefore considered de minimis.</td>
</tr>
<tr>
<td>Mobile Sources</td>
<td>Emissions are not relevant</td>
<td>Emissions are not relevant</td>
<td>Emissions are not relevant</td>
<td>Incomplete data availability; Emissions not material to organization. Our analysis shows that Mobile Sources make up less than 5% of our scope and therefore considered de minimis.</td>
</tr>
<tr>
<td>Fugitives</td>
<td>Emissions are not relevant</td>
<td>Emissions are not relevant</td>
<td>Emissions are not relevant</td>
<td>Fugitive emissions are evaluated but not disclosed for consistency with other corporate reports. Our analysis shows that fugitive emissions (SF6) are less than 5% of our scope and therefore considered de minimis.</td>
</tr>
</tbody>
</table>
(C.6.5) Account for your organization’s Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation

Capital goods

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Not relevant to energy sector

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

Evaluation status
Relevant, calculated

Metric tonnes CO2e
47718

Emissions calculation methodology
Estimated based on ThermWise program savings of 950,000 dekatherms time 0.053 metric tons.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
50

Explanation
ThermWise is a customer natural gas conservation program implemented by DE-UT/WY/ID

Upstream transportation and distribution

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Waste generated in operations

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Information about our waste generation is provided in separate corporate disclosures and is not considered relevant for the CDP.

Business travel

**Evaluation status**
Not evaluated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**

Employee commuting

**Evaluation status**
Not evaluated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**

Upstream leased assets

**Evaluation status**
Not evaluated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Downstream transportation and distribution

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
The emissions from transportation and distribution of electricity are included in Scope 1 emissions. See oil and gas section of CDP for the Scope 1 emissions related to that sector.

Processing of sold products

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
The emissions from the generation of electricity are reported under Scope 1 emissions. Emissions from processing of natural gas liquids and natural gas are reported under Scope 1 under the oil and gas section of the CDP.

Use of sold products

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Use and end of life treatment is next row are essentially the same in that energy is either consumed (generation emissions are under Scope 1) or combusted (see next row).
End of life treatment of sold products

Evaluation status
Relevant, calculated

Metric tonnes CO2e
20612155.3

Emissions calculation methodology
US EPA Mandatory Greenhouse Gas Reporting Rule

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

Explanation
Use and End of life treatment in next row are essentially the same in that energy is either consumed or combusted. The combustion of natural gas and natural gas liquids supplied to customers is reported under Subpart NN of the US EPA Mandatory Greenhouse Gas Reporting Program and are provided in this section of the CDP because there is no opportunity to provide this Scope 3 data in the oil and gas portion of the CDP.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
No downstream leased assets of which we are aware.

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
No downstream franchises of which we are aware.

Investments

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Other (upstream)

Evaluation status

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation

Other (downstream)

Evaluation status

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation

C6.7

(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?
Yes

C6.7a

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

Row 1

Emissions from biologically sequestered carbon (metric tons CO2)
1642415.33

Comment

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
0.2766

Metric numerator (Gross global combined Scope 1 and 2 emissions)
27870574

Metric denominator
megawatt hour transmitted (MWh)

Metric denominator: Unit total
100769351

Scope 2 figure used
Location-based

% change from previous year
7

Direction of change
Decreased

Reason for change
Both metrics decreased compared to the year before due to reductions in carbon emissions. 2018 was a mild weather year, so we did not produce as much power (MWH) as in 2017. We also brought additional renewable energy on line in 2018.

Intensity figure
0.0032

Metric numerator (Gross global combined Scope 1 and 2 emissions)
27870574

Metric denominator
unit total revenue

Metric denominator: Unit total
8691000000

Scope 2 figure used
Location-based

% change from previous year
8

Direction of change
Decreased

Reason for change
Both metrics decreased compared to the year before due to reductions in carbon emissions. 2018 was a mild weather year, so we did not produce as much power (MWH) as in 2017. We also brought additional renewable energy on line in 2018.

C-OG6.12
(C-OG6.12) Provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category.

**Unit of hydrocarbon category (denominator)**
Million cubic feet of natural gas

**Metric tons CO2e from hydrocarbon category per unit specified**
0.33

**% change from previous year**
0

**Direction of change**
No change

**Reason for change**
Increase in metric tons of CO2e was proportional to the change in million cubic feet of natural gas throughput.

**Comment**
Value derived from Scope 1 CO2e from all company natural gas operations as reported to the USEPA under 40 CFR 98, also known as the Greenhouse Gas Reporting Program (GHGRP). The emissions do not represent all of operations. The gas throughput is the sum of throughputs reported at the facility level under the GHGRP.

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C-OG6.13

(C-OG6.13) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.

**Oil and gas business division**
Upstream

**Estimated total methane emitted expressed as % of natural gas production or throughput at given division**
1.395

**Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division**
1.395

**Comment**
Values derived from Scope 1 CH4 from all company natural gas operations as reported to the USEPA under 40 CFR 98, Subpart W, also known as the Greenhouse Gas Reporting Program (GHGRP). The emissions do not represent all of operations. The gas throughput is the sum of throughputs reported at the facility level under the GHGRP.

**Oil and gas business division**
Downstream

**Estimated total methane emitted expressed as % of natural gas production or throughput at given division**
0.028

**Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division**
0.028

**Comment**
Values derived from Scope 1 CH4 from all company natural gas operations as reported to the USEPA under 40 CFR 98, Subpart W, also known as the Greenhouse Gas Reporting Program (GHGRP). The emissions do not represent all of operations. The gas throughput is the sum of throughputs reported at the facility level under the GHGRP.

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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).

<table>
<thead>
<tr>
<th>Greenhouse Gas</th>
<th>Emissions (metric tons CO2e)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>27682991</td>
<td>IPCC Fourth Assessment Report (AR4 - 100 year)</td>
</tr>
<tr>
<td>CH4</td>
<td>45522</td>
<td>IPCC Fourth Assessment Report (AR4 - 100 year)</td>
</tr>
<tr>
<td>N2O</td>
<td>88162</td>
<td>IPCC Fourth Assessment Report (AR4 - 100 year)</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Activity Type</th>
<th>Emissions (metric tons CO2e)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fugitives</td>
<td>0</td>
<td>Regulated Generation</td>
</tr>
<tr>
<td>Combustion (Electric utilities)</td>
<td>24419454.2</td>
<td>Regulated Generation</td>
</tr>
<tr>
<td></td>
<td>1761</td>
<td>Regulated Generation</td>
</tr>
<tr>
<td></td>
<td>1,75</td>
<td>Combustion of gas supplied to our customers is reported under Scope 3 emissions</td>
</tr>
<tr>
<td>Combustion (Gas utilities)</td>
<td>0</td>
<td>Merchant Generation</td>
</tr>
<tr>
<td>Combustion (Other)</td>
<td>3263536.9</td>
<td>Merchant Generation</td>
</tr>
<tr>
<td></td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>Emissions not elsewhere classified</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

C-OG7.1b
(C-OG7.1b) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.

<table>
<thead>
<tr>
<th>Emissions category</th>
<th>Fugitives</th>
</tr>
</thead>
</table>

**Value chain**
- Upstream
- Midstream
- Downstream

**Product**
- Gas

**Gross Scope 1 CO2 emissions (metric tons CO2)**
- 50972.5

**Gross Scope 1 methane emissions (metric tons CH4)**
- 73425.71

**Total gross Scope 1 emissions (metric tons CO2e)**
- 1886289

**Comment**

---

<table>
<thead>
<tr>
<th>Emissions category</th>
<th>Combustion (excluding flaring)</th>
</tr>
</thead>
</table>

**Value chain**
- Upstream
- Midstream
- Downstream

**Product**
- Gas

**Gross Scope 1 CO2 emissions (metric tons CO2)**
- 2276383.5

**Gross Scope 1 methane emissions (metric tons CH4)**
- 96.83

**Total gross Scope 1 emissions (metric tons CO2e)**
- 2280084

**Comment**

---

**C7.2**

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

| United States of America | 27816676 |

**C7.3**

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

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

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Annual Emission</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fairless CT Station</td>
<td>2466395</td>
<td>40.147092</td>
<td>-74.741792</td>
</tr>
<tr>
<td>Manchester Street Power Station</td>
<td>799672</td>
<td>41.816841</td>
<td>-71.405649</td>
</tr>
<tr>
<td>Millstone Nuclear Station</td>
<td>608</td>
<td>41.310744</td>
<td>-72.167634</td>
</tr>
<tr>
<td>Altavista Power Station</td>
<td>4786</td>
<td>37.118231</td>
<td>-79.275603</td>
</tr>
<tr>
<td>Bear Garden Generating Station</td>
<td>1525714</td>
<td>37.694608</td>
<td>-78.290609</td>
</tr>
<tr>
<td>Bellemade Power Station</td>
<td>25995</td>
<td>37.496903</td>
<td>-77.432519</td>
</tr>
<tr>
<td>Bremo Power Station</td>
<td>8904</td>
<td>37.709759</td>
<td>-78.287583</td>
</tr>
<tr>
<td>Brunswick County Power Station</td>
<td>3161110</td>
<td>36.764622</td>
<td>-77.712641</td>
</tr>
<tr>
<td>Chesapeake Energy Center</td>
<td>1830</td>
<td>36.773921</td>
<td>-76.302492</td>
</tr>
<tr>
<td>Chesterfield Power Station</td>
<td>3150903</td>
<td>37.382016</td>
<td>-77.383579</td>
</tr>
<tr>
<td>Clover Power Station</td>
<td>1529291</td>
<td>36.670154</td>
<td>-78.704596</td>
</tr>
<tr>
<td>Darbytown CT Station</td>
<td>65978</td>
<td>37.499067</td>
<td>-77.368508</td>
</tr>
<tr>
<td>Elizabeth River CT Station</td>
<td>174739</td>
<td>36.774842</td>
<td>-76.310577</td>
</tr>
<tr>
<td>Gordonsville Power Station</td>
<td>389825</td>
<td>38.124699</td>
<td>-78.203366</td>
</tr>
<tr>
<td>Gravel Neck CT Station</td>
<td>69347</td>
<td>37.157755</td>
<td>-76.690937</td>
</tr>
<tr>
<td>Hopewell Power Station</td>
<td>5588</td>
<td>37.297619</td>
<td>-77.514476</td>
</tr>
<tr>
<td>Ladysmith CT Station</td>
<td>389825</td>
<td>38.072911</td>
<td>-79.892033</td>
</tr>
<tr>
<td>Low Moor CT Station</td>
<td>3360</td>
<td>37.777072</td>
<td>-79.851272</td>
</tr>
<tr>
<td>Mecklenburg Power Station</td>
<td>68689</td>
<td>38.593943</td>
<td>-79.266258</td>
</tr>
<tr>
<td>Mount Storm Power Station</td>
<td>5367394</td>
<td>39.203335</td>
<td>-77.794655</td>
</tr>
<tr>
<td>North Anna Nuclear Station</td>
<td>497</td>
<td>38.060581</td>
<td>-76.711489</td>
</tr>
<tr>
<td>Northern Neck CT Station</td>
<td>2932</td>
<td>37.947744</td>
<td>-79.265553</td>
</tr>
<tr>
<td>Pittsylvania Power Station</td>
<td>2020</td>
<td>38.104358</td>
<td>-79.826769</td>
</tr>
<tr>
<td>Possum Point Power Station</td>
<td>1505365</td>
<td>38.550354</td>
<td>-77.287679</td>
</tr>
<tr>
<td>Remington CT Station</td>
<td>531415</td>
<td>38.543369</td>
<td>-77.770425</td>
</tr>
<tr>
<td>Rosemary CT Station</td>
<td>20837</td>
<td>36.452391</td>
<td>-77.660455</td>
</tr>
<tr>
<td>Southampton Power Station</td>
<td>5928.1</td>
<td>36.652173</td>
<td>-76.965283</td>
</tr>
<tr>
<td>Surry Nuclear Station</td>
<td>426</td>
<td>37.165549</td>
<td>-76.697824</td>
</tr>
<tr>
<td>Virginia City Hybrid Energy Center</td>
<td>2626461</td>
<td>36.915585</td>
<td>-82.339721</td>
</tr>
<tr>
<td>Warren County Generating Station</td>
<td>3052345</td>
<td>36.9701</td>
<td>-78.17749</td>
</tr>
<tr>
<td>Yorktown Power Station</td>
<td>551238</td>
<td>37.213903</td>
<td>-76.457885</td>
</tr>
<tr>
<td>Greensville County Power Station</td>
<td>300476</td>
<td>36.72159</td>
<td>-77.655884</td>
</tr>
</tbody>
</table>

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
C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Electric utility generation activities (MWh)</th>
<th>Corporate Inventory – Production, Gathering and Boosting, and Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>53898</td>
<td>Corporate Inventory – Production, Gathering and Boosting, and Processing</td>
</tr>
</tbody>
</table>

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

<table>
<thead>
<tr>
<th>Business Division</th>
<th>Electric Utilities Activities (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>53898</td>
</tr>
</tbody>
</table>

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7
Break down your organization’s total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

<table>
<thead>
<tr>
<th>Sector Production Activities</th>
<th>Scope 2, location-based, metric tons CO2e</th>
<th>Scope 2, market-based (if applicable), metric tons CO2e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement production activities</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Chemicals production activities</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Coal production activities</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Metals and mining production activities</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Oil and gas production activities (upstream)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil and gas production activities (downstream)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel production activities</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Transport OEM activities</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Transport services activities</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Change in renewable energy consumption</th>
<th>330511.1</th>
<th>Decreased 21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in Other emissions reduction activities</td>
<td>3230063</td>
<td>Decreased 21</td>
</tr>
<tr>
<td>Change in output</td>
<td>2394800</td>
<td>Decreased 8</td>
</tr>
<tr>
<td>Change in methodology</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Change in boundary</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Change in physical operating conditions</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Unidentified</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
</tbody>
</table>

Dominion Energy increased solar energy with the addition of several solar facilities. 2018 renewable net generation (4129337.7) – 2017 renewable net generation (1550392.3) = 725,604.41 Renewable Net MWhs. eGRID 2016 factors were used to convert MWhs to CO2e. 2018 MT CO2e emissions savings = 1,880,903.4. 2017 MT CO2e emissions savings = 1,550,392.3. [-330.511.1 (change in emissions from renewable energy consumption) / 1,550,392.3 (2017 MT CO2e savings)] * 100 = 21%

Dominion Energy used less coal combustion by increasing natural gas and putting our four coal-fired units into reserve in 2018, which were permanently shut down in 2019. 2018 coal CO2e emissions = 11,894,130 MT. 2017 coal CO2e emissions = 15,124,193 MT. [-3,230,063 CO2e (change in coal related emissions) / 15,124,193 (2017 CO2e coal combustion related emissions)] * 100 = -21%

Less emissions in 2018 compared to 2017 due to mild weather in our service territory and increase in natural gas and solar generation. 2,394,800 (change in total CO2e emissions) / 30,158,187 (2017 CO2e) * 100 = -8%

C7.9b

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

Location-based

C8. Energy

C8.1

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

More than 0% but less than or equal to 5%

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

- Consumption of fuel (excluding feedstocks): Yes
- Consumption of purchased or acquired electricity: Yes
- Consumption of purchased or acquired heat: No
- Consumption of purchased or acquired steam: No
- Consumption of purchased or acquired cooling: No
- Generation of electricity, heat, steam, or cooling: Yes

C8.2a

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

<table>
<thead>
<tr>
<th>Activity</th>
<th>Consumption (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel (excluding feedstocks)</td>
<td>104,040,250</td>
</tr>
<tr>
<td>Purchased or acquired electricity</td>
<td>186,009,611</td>
</tr>
<tr>
<td>Purchased or acquired heat</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Purchased or acquired steam</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Purchased or acquired cooling</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Self-generated non-fuel renewable energy</td>
<td>4,219,337</td>
</tr>
<tr>
<td>Total energy consumption</td>
<td>133,546,732</td>
</tr>
</tbody>
</table>

C8.2b

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

- Consumption of fuel for the generation of electricity: Yes
- Consumption of fuel for the generation of heat: No
- Consumption of fuel for the generation of steam: No
- Consumption of fuel for the generation of cooling: No
- Consumption of fuel for co-generation or tri-generation: No

C8.2c

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

**Fuels (excluding feedstocks)**
- Natural Gas

**Heating value**
- HHV (higher heating value)

**Total fuel MWh consumed by the organization**
- 841,417,35
MWh fuel consumed for self-generation of electricity
84141735

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Fuels (excluding feedstocks)

Bituminous Coal

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
12306493

MWh fuel consumed for self-generation of electricity
12306493

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Comment

Fuels (excluding feedstocks)

Jet Kerosene

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
794

MWh fuel consumed for self-generation of electricity
794

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Comment

Fuels (excluding feedstocks)
### Fuel Oil Number 2

**Heating value**
HHV (higher heating value)

<table>
<thead>
<tr>
<th>Total fuel MWh consumed by the organization</th>
<th>1435953</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWh fuel consumed for self-generation of electricity</td>
<td>1435953</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of heat</td>
<td>0</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of steam</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of cooling</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>MWh fuel consumed for self-cogeneration or self-trigeneration</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>

**Comment**

<table>
<thead>
<tr>
<th>Fuels (excluding feedstocks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel Oil Number 6</td>
</tr>
</tbody>
</table>

**Heating value**
HHV (higher heating value)

<table>
<thead>
<tr>
<th>Total fuel MWh consumed by the organization</th>
<th>773663</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWh fuel consumed for self-generation of electricity</td>
<td>773663</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of heat</td>
<td>0</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of steam</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of cooling</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>MWh fuel consumed for self-cogeneration or self-trigeneration</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>

**Comment**

<table>
<thead>
<tr>
<th>Fuels (excluding feedstocks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood</td>
</tr>
</tbody>
</table>

**Heating value**
HHV (higher heating value)

<table>
<thead>
<tr>
<th>Total fuel MWh consumed by the organization</th>
<th>5380969</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWh fuel consumed for self-generation of electricity</td>
<td>5380969</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of heat</td>
<td>0</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of steam</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of cooling</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>
MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Comment

Fuels (excluding feedstocks)
Propane Liquid

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
132

MWh fuel consumed for self-generation of electricity
132

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Comment

Fuels (excluding feedstocks)
Other, please specify (Used Oil)

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
511

MWh fuel consumed for self-generation of electricity
511

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Comment

C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.
Bituminous Coal

Emission factor
93.28

Unit
kg CO2 per million Btu

Emission factor source
US CFR 40 Part 98

Comment

Fuel Oil Number 2

Emission factor
73.96

Unit
kg CO2 per million Btu

Emission factor source
US CFR 40 Part 98

Comment

Fuel Oil Number 6

Emission factor
75.1

Unit
kg CO2 per million Btu

Emission factor source
US CFR 40 Part 98

Comment

Jet Kerosene

Emission factor
72.22

Unit
kg CO2 per million Btu

Emission factor source
US CFR 40 Part 98

Comment

Natural Gas

Emission factor
53.06

Unit
kg CO2 per million Btu

Emission factor source
US CFR 40 Part 98

Comment
Propane Liquid

Emission factor
62.87

Unit
kg CO2 per million Btu

Emission factor source
US CFR 40 Part 98

Comment

Wood

Emission factor
93.8

Unit
kg CO2 per million Btu

Emission factor source
US CFR 40 Part 98

Comment

Other

Emission factor
74

Unit
kg CO2 per million Btu

Emission factor source
US CFR 40 Part 98

Comment
Used Oil

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

<table>
<thead>
<tr>
<th></th>
<th>Electricity 128804330</th>
<th>28181659</th>
<th>4219337</th>
<th>2115.94</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Heat</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Steam</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cooling</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

C-EU8.2e

(C-EU8.2e) 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) 4622.1

Gross electricity generation (GWh) 12306

Net electricity generation (GWh) 11894130

Absolute scope 1 emissions (metric tons CO2e) 966

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

Comment

Lignite

Nameplate capacity (MW) 0

Gross electricity generation (GWh) 0

Net electricity generation (GWh) 0

Absolute scope 1 emissions (metric tons CO2e) 0

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

Comment

Oil

Nameplate capacity (MW) 2151.6

Gross electricity generation (GWh) 737

Net electricity generation (GWh) 562902

Absolute scope 1 emissions (metric tons CO2e) 764

Scope 1 emissions intensity (metric tons CO2e per GWh) 394

Comment

Gas

Nameplate capacity (MW) 12144.3

Gross electricity generation (GWh) 38712

Net electricity generation (GWh) 15249502

Absolute scope 1 emissions (metric tons CO2e) 394

Scope 1 emissions intensity (metric tons CO2e per GWh) 394

Comment
Biomass

Nameplate capacity (MW) 303.3

Gross electricity generation (GWh)

Net electricity generation (GWh) 1196

Absolute scope 1 emissions (metric tons CO2e) 23002

Scope 1 emissions intensity (metric tons CO2e per GWh) 19

Comment

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

Nuclear

Nameplate capacity (MW) 5508.6

Gross electricity generation (GWh)

Net electricity generation (GWh) 43541

Absolute scope 1 emissions (metric tons CO2e) 0

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

Comment

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
Hydroelectric

Nameplate capacity (MW)
286.1

Gross electricity generation (GWh)

Net electricity generation (GWh)
852

Absolute scope 1 emissions (metric tons CO2e)
0

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

Comment

Wind

Nameplate capacity (MW)
282.7

Gross electricity generation (GWh)

Net electricity generation (GWh)
574

Absolute scope 1 emissions (metric tons CO2e)
0

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

Comment

Solar

Nameplate capacity (MW)
1400.6

Gross electricity generation (GWh)

Net electricity generation (GWh)
2793

Absolute scope 1 emissions (metric tons CO2e)
0

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

Comment

Other renewable

Nameplate capacity (MW)
0

Gross electricity generation (GWh)
0

Net electricity generation (GWh)
0

Absolute scope 1 emissions (metric tons CO2e)
0

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

Comment
Other non-renewable

Nameplate capacity (MW)  
0

Gross electricity generation (GWh)  
0

Net electricity generation (GWh)  
0

Absolute scope 1 emissions (metric tons CO2e)  
0

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

Comment

Total

Nameplate capacity (MW)  
26699.3

Gross electricity generation (GWh)  
0

Net electricity generation (GWh)  
100712

Absolute scope 1 emissions (metric tons CO2e)  
27729536

Scope 1 emissions intensity (metric tons CO2e per GWh)  
275

Comment

C8.2f

(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.

Basis for applying a low-carbon emission factor
No purchases or generation of low-carbon electricity, heat, steam or cooling accounted with a low-carbon emission factor

Low-carbon technology type  
<Not Applicable>

Region of consumption of low-carbon electricity, heat, steam or cooling  
<Not Applicable>

MWh consumed associated with low-carbon electricity, heat, steam or cooling  
<Not Applicable>

Emission factor (in units of metric tons CO2e per MWh)  
<Not Applicable>

Comment

C-EU8.4

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

No
C9. Additional metrics

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric value</td>
<td>19</td>
</tr>
<tr>
<td>Metric numerator</td>
<td>Tons of coal combustion products beneficially used</td>
</tr>
<tr>
<td>Metric denominator (intensity metric only)</td>
<td>Tons of coal combustion products generated</td>
</tr>
<tr>
<td>% change from previous year</td>
<td>42</td>
</tr>
<tr>
<td>Direction of change</td>
<td>Decreased</td>
</tr>
</tbody>
</table>

**Please explain**

<table>
<thead>
<tr>
<th>Description</th>
<th>Other, please specify (Total CO2 Emissions Intensity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Owned + Purchased Generation CO2 Emissions Intensity (MT/Net MWh)</td>
<td></td>
</tr>
<tr>
<td>Metric value</td>
<td>0.34</td>
</tr>
<tr>
<td>Metric numerator</td>
<td>Metric tons of CO2</td>
</tr>
<tr>
<td>Metric denominator (intensity metric only)</td>
<td>Net MWH from generation plus purchased power</td>
</tr>
<tr>
<td>% change from previous year</td>
<td>5</td>
</tr>
<tr>
<td>Direction of change</td>
<td>Decreased</td>
</tr>
</tbody>
</table>

**Please explain**
Total Owned + Purchased Generation CO2 Emissions Intensity (MT/Net MWh).

<table>
<thead>
<tr>
<th>Description</th>
<th>Other, please specify (SF6 Leak Rate Percent from electric transmission and distribution equipment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total CO2e (MT) from SF6 in electric transmission and distribution equipment</td>
<td></td>
</tr>
<tr>
<td>Metric value</td>
<td>0.54</td>
</tr>
<tr>
<td>Metric numerator</td>
<td>SF6 Emissions (lbs)</td>
</tr>
<tr>
<td>Metric denominator (intensity metric only)</td>
<td>Total Nameplate Capacity (lbs)</td>
</tr>
<tr>
<td>% change from previous year</td>
<td>0</td>
</tr>
<tr>
<td>Direction of change</td>
<td>No change</td>
</tr>
</tbody>
</table>

**Please explain**
Newly reported - SF6 Emission Rate (SF6 lbs/Nameplate Capacity lbs). This is our electric transmission and distribution leak rate.
C-OG9.2a

(C-OG9.2a) Disclose your net liquid and gas hydrocarbon production (total of subsidiaries and equity-accounted entities).

Crude oil and condensate, million barrels
Natural gas liquids, million barrels
Oil sands, million barrels (includes bitumen and synthetic crude)
Natural gas, billion cubic feet

C-OG9.2b

(C-OG9.2b) Explain which listing requirements or other methodologies you use to report reserves data. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this.

Dominion Energy Wexpro's proved developed producing (PDP) cost-of-service gas reserves are listed in the SEC Form 10-K filed by Questar Gas Company.

This information is provided with respect to estimated natural gas reserves, which are managed, developed, and delivered by Wexpro at cost-of-service pursuant to the Wexpro Agreement. The estimates of proved gas reserves were prepared by Wexpro's reservoir engineers. Gas reserve estimates are subject to numerous uncertainties inherent in estimating quantities of proved reserves, projecting future rates or production and timing of development expenditures. The accuracy of these estimates depends on the quality of available data and on engineering and geological interpretation and judgment. Reserve estimates are imprecise and will change as additional information becomes available. Geological and engineering data demonstrate with reasonable certainty that these quantities are recoverable under existing economic and operating conditions. Since the gas reserves operated by Wexpro are delivered to Questar Gas at cost-of-service, SEC guidelines with respect to standard economic assumptions are not applicable. The SEC anticipated this potential difficulty and provides that companies may give appropriate recognition to differences because of the effect of the ratemaking process. Accordingly, Wexpro uses a minimum-producing rate or maximum well-life limit to determine the ultimate quantity of gas reserves.

C-OG9.2c

(C-OG9.2c) Disclose your estimated total net reserves and resource base (million boe), including the total associated with subsidiaries and equity-accounted entities.

Row 71.6

1

C-OG9.2d
(C-OG9.2d) Provide an indicative percentage split for 2P, 3P reserves, and total resource base by hydrocarbon categories.

<table>
<thead>
<tr>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude oil / condensate / Natural gas liquids</td>
<td>0</td>
</tr>
<tr>
<td>Natural gas</td>
<td>100</td>
</tr>
<tr>
<td>Oil sands (includes bitumen and synthetic crude)</td>
<td>0</td>
</tr>
</tbody>
</table>

C-OG9.2e

(C-OG9.2e) Provide an indicative percentage split for production, 1P, 2P, 3P reserves, and total resource base by development types.

C-OG9.3a

(C-OG9.3a) Disclose your total refinery throughput capacity in the reporting year in thousand barrels per year.

| Capacity | 0 |

C-OG9.3b

(C-OG9.3b) Disclose feedstocks processed in the reporting year in million barrels per year.

<table>
<thead>
<tr>
<th>Feedstocks</th>
<th>Million barrels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil</td>
<td>0</td>
</tr>
<tr>
<td>Other feedstocks</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
</tr>
</tbody>
</table>

C-OG9.3c

(C-OG9.3c) Are you able to break down your refinery products and net production?

No

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

<table>
<thead>
<tr>
<th>Products and services</th>
<th>CAPEX planned for product/service</th>
<th>Percentage of total CAPEX planned for products and services</th>
<th>End of year CAPEX plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal – hard</td>
<td>103.61</td>
<td>10.7</td>
<td>2023</td>
</tr>
<tr>
<td>Lignite</td>
<td>0</td>
<td>0</td>
<td>2023</td>
</tr>
<tr>
<td>Oil</td>
<td>1.4</td>
<td>0.1</td>
<td>2023</td>
</tr>
<tr>
<td>Gas</td>
<td>248.35</td>
<td>25.7</td>
<td>2023</td>
</tr>
<tr>
<td>Biomass</td>
<td>3.3</td>
<td>0.3</td>
<td>2023</td>
</tr>
<tr>
<td>Waste (non-biomass)</td>
<td>0</td>
<td>0</td>
<td>2023</td>
</tr>
<tr>
<td>Nuclear</td>
<td>247.77</td>
<td>25.7</td>
<td>2023</td>
</tr>
<tr>
<td>Geothermal</td>
<td>0</td>
<td>0</td>
<td>2023</td>
</tr>
<tr>
<td>Hydroelectric</td>
<td>11.92</td>
<td>1.2</td>
<td>2023</td>
</tr>
<tr>
<td>Wind</td>
<td>77.42</td>
<td>8</td>
<td>2023</td>
</tr>
<tr>
<td>Solar</td>
<td>271.01</td>
<td>28.1</td>
<td>2023</td>
</tr>
</tbody>
</table>

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

Prosumer services: Other - Grid Modernization Project. Includes investments in: advanced metering infrastructure, customer information platform, reliability and resilience measures that include grid devices, operations and automated control systems, grid hardening; telecommunications infrastructure, cyber and physical security, predictive analytics, and emerging technology. *Planned capital is subject to pending regulatory/Board of Director's approvals.

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

(C-CO9.6/C-EU9.6/C-OG9.6) Disclose your investments in low-carbon research and development (R&D), equipment, products, and services.

<table>
<thead>
<tr>
<th>Investment start date</th>
<th>June 1 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment end date</td>
<td>June 1 2016</td>
</tr>
<tr>
<td>Investment area</td>
<td>R&amp;D</td>
</tr>
<tr>
<td>Technology area</td>
<td></td>
</tr>
</tbody>
</table>
Renewable energy

Investment maturity
Large scale commercial deployment

Investment figure
930000

Low-carbon investment percentage
81-100%

Please explain
Dominion Energy participates in the ClearSky Technology Fund. Through the Company's participation in the fund, Dominion Energy is invested in NEXTracker. NEXTracker provides an innovative new design for utility scale trackers. This product increases the amount of energy produced by a solar installation. In June 2015, ClearSky Technology Fund invested $5 Million in NEXTracker. The Company designs and engages with contract manufacturers to build single-axis tracking systems for utility-scale and large commercial photovoltaic solar projects to improve power output by 1% to 2%. The Company was purchased by Flextronics in September of 2015. Dominion, among others, has several sites utilizing NEXTracker technology.

Investment start date
May 1 2013

Investment end date
May 1 2014

Investment area
Products

Technology area
Renewable energy

Investment maturity
Large scale commercial deployment

Investment figure
90000000

Low-carbon investment percentage
81-100%

Please explain
In 2012, Dominion Energy formed Tredegar Solar Fund I, an entity managed by Dominion Energy's Corporate Strategies Group now called Spruce Finance Inc. formally Clean Power Finance and focused on unregulated residential solar projects. The Fund owns residential roof-top solar systems that are originated and administered by Clean Power Finance, Inc., a provider of solar finance products. The systems are subject to power purchase agreements with third parties. In September 2013 and December 2013, Dominion Energy's Board of Directors approved incremental investments in the Fund, for a total authorized investment of $90 million. As of August 2015, the Fund has installations in service totaling nearly $90 million. The Fund is involved in the financing of residential solar rooftop projects in New Jersey, Massachusetts, and California.

Investment start date
September 1 2017

Investment end date
September 1 2018

Investment area
R&D

Technology area
Other, please specify (Applied research and development)

Investment maturity
Applied research and development

Investment figure
0

Low-carbon investment percentage
81-100%
Please explain
Between Sept 2017 and March 2018, DETI completed a proof of concept (POC) utilizing Big Data Analytics to improve processes around Lost and Unaccounted for Gas with Space Time Insights (STI). The POC proved that significant efficiencies would be gained by using machine learning, data visualization and business rules to more readily identify meter anomalies. ClearSky Technology Fund invested in STI starting in 2012 until recently when the Company was acquired by Nokia in April 2018. Currently, Dominion Energy is examining the best method to scale the technology.

**Investment start date**
July 1 2014

**Investment end date**
December 31 2018

**Investment area**
R&D

**Technology area**
Other, please specify (Microgrid, Battery Storage, Fuel Cells)

**Investment maturity**
Pilot demonstration

**Investment figure**
844195.46

**Low-carbon investment percentage**
81-100%

Please explain
Dominion Energy completed construction of its microgrid demonstration project at its North Carolina Kitty Hawk District Office in July 2014. The microgrid project included innovative distributed renewable generation and energy storage technologies. A microgrid, as defined by the DOE, is a group of interconnected loads and distributed energy resources within clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid, allowing it to operate in grid-connected or island mode. The project included four different types of micro-wind turbines, a solar PV array, and a lithium-ion battery integrated behind-the-meter with the existing on-site diesel generator and utility feed. In the third quarter of 2015, the Company integrated two small, residential-sized fuel cells in order to study the fuel cell’s interaction with the on-site renewable energy technologies in a microgrid environment. The knowledge gained from this microgrid project has been used to further assess the best practice for integrating large amounts of intermittent generation (such as wind and solar PV) into the existing grid. Dominion Energy received federal Investment Tax Credits and North Carolina Renewable Energy Tax Credit incentives to develop the Microgrid Demonstration. As of June 30, 2016, the total net cost of the project with both federal and state tax incentives was $844,195.46.

**Investment start date**
January 1 2013

**Investment end date**
December 31 2018

**Investment area**
R&D

**Technology area**
Other, please specify (Research Partnerships)

**Investment maturity**
Basic academic/theoretical research

**Investment figure**
1700000

**Low-carbon investment percentage**
81-100%

Please explain
Dominion Energy partners with about a dozen Virginia colleges and universities, providing $1.7 million in funding for a variety of renewable energy and alternative technology research projects. The projects include high-efficiency solar cells, advanced offshore wind technologies, and the integration of battery storage with solar distributed generation, among others. As two examples, we have worked with Randolph-Macon College and Virginia Commonwealth University (VCU) on various research and development projects. For Randolph-Macon College, in Ashland, Virginia, we joined forces to host an annual pitch competition for both start-ups
and students. The winning company receives a $10,000 award and membership in the Dominion Energy Innovation Center. The 2018 company winner was Babylon Micro-Farms, which creates modular indoor farms to supply fresh produce year-round. The winning student teams earn the opportunity to pitch their ideas in front of a panel of judges and receive a cash prize and co-working space in the innovation center. For VCU, we have worked on ventures such as the Power the Future design-a-thon, a unique 24-hour challenge with the purpose of developing an app for Dominion Energy, and its multi-disciplinary Da Vinci Center.

**Investment start date**
January 1 2013

**Investment end date**
December 31 2013

**Investment area**
Equipment

**Technology area**
Renewable energy

**Investment maturity**
Applied research and development

**Investment figure**
1600000

**Low-carbon investment percentage**
81-100%

**Please explain**
Dominion Energy Virginia is leveraging our experience with the Coastal Virginia Offshore Wind Project (CVOW) to support the development of a commercial offshore wind generation facility. The Company bid $1.6 million on September 4, 2013, winning the lease for 112,799 acres of submerged federal land off the coast of Virginia to develop a commercial offshore wind turbine facility capable of generating up to 2,000 MW of electricity, enough for 500,000 homes. The Company continues to comply with the lease obligations (effective November 1, 2013) established by the Bureau of Offshore Energy Management (BOEM), part of the U.S. Department of the Interior. On October 12, 2017, BOEM approved the Dominion Site Assessment Plan (SAP), which describes the activities (e.g. installation of meteorological buoys, surveys, etc.) that will be performed for the wind resource characterization, as the development effort continues. The Site Assessment Term will run through October 2022, with the Construction and Operations Plan (COP) due 6 months before the end date of the Site Assessment Term.

**Investment start date**
January 1 2018

**Investment end date**
December 31 2018

**Investment area**
Equipment

**Technology area**
Infrastructure

**Investment maturity**
Large scale commercial deployment

**Investment figure**
23000000

**Low-carbon investment percentage**
81-100%

**Please explain**
ThermWise® is our Utah program to promote the use of energy-efficient appliances and practices to reduce natural gas usage. The initial ThermWise energy assistance budget for 2018 is $24.5 million, with a target of more than 81,000 customers participating. The team forecasted saving 1.15 million dekatherms of natural gas in 2018, which equates to the annual usage of nearly 14,500 customers. It is estimated that over 70,000 participated in the ThermWise program in 2018 with a natural gas savings of 950,000 Dth. An estimated $23 million was spent for energy efficiency programs. The savings were equivalent to more than 50,000 tons of CO2 avoided in 2018.
<table>
<thead>
<tr>
<th>Investment start date</th>
<th>March 1 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment end date</td>
<td>December 31 2018</td>
</tr>
<tr>
<td>Investment area</td>
<td>R&amp;D</td>
</tr>
<tr>
<td>Technology area</td>
<td>Methane detection and reduction</td>
</tr>
<tr>
<td>Investment maturity</td>
<td>Small scale commercial deployment</td>
</tr>
<tr>
<td>Investment figure</td>
<td>2600000</td>
</tr>
<tr>
<td>Low-carbon investment percentage</td>
<td>81-100%</td>
</tr>
</tbody>
</table>

**Please explain**
After piloting the technology on a limited scale, Dominion Energy recently purchased 20 Zero Emissions Vacuum and Compression (ZEVAC®) units from TPE Midstream for widespread use across its distribution and transmission pipeline systems. The (ZEVAC®) technology captures methane emissions prior to maintenance or inspection so that it can be recycled for use. This process allows us to evacuate gas that would have been vented to atmosphere and discharge back into a pressurized system—reducing venting methane to atmosphere. Since the current cost of gas is low and this equipment is being utilized for smaller sections of pipeline, an anticipated payback on equipment purchase is difficult to determine, however will result in more than 90% reduction in methane emissions at these facilities. Dominion Energy Transmission reduced methane emissions from planned pipeline blowdowns by over 50% in 2018 through use of Reserve Pumpdown systems. These compressions systems are supplied by tractor trailer to accessible locations to pumpdown pipelines to the lowest possible pressure prior to maintenance resulting in some of the largest methane savings across our systems. While these services have provided a payback of some of the rental costs to date, these systems are planned to be used more broadly across our systems in 2019.

<table>
<thead>
<tr>
<th>Investment start date</th>
<th>January 1 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment end date</td>
<td>December 31 2018</td>
</tr>
<tr>
<td>Investment area</td>
<td>R&amp;D</td>
</tr>
<tr>
<td>Technology area</td>
<td>Renewable energy</td>
</tr>
<tr>
<td>Investment maturity</td>
<td>Applied research and development</td>
</tr>
<tr>
<td>Investment figure</td>
<td>250000000</td>
</tr>
<tr>
<td>Low-carbon investment percentage</td>
<td>81-100%</td>
</tr>
</tbody>
</table>

**Please explain**
As another pilot, in late 2018, Dominion Energy announced a $250 million joint venture with Smithfield Foods to capture waste methane from hog farms and convert that waste into clean, renewable natural gas (RNG). The Align RNG partnership will substantially reduce agricultural methane emissions, while creating a renewable resource for energy consumers. Initial stages involve 93 farms built in North Carolina, Utah, and Virginia. Align Renewable maintains the “first four projects will produce enough energy to reliably power about 14,000 homes.” This would also reduce the amount of greenhouse gas emissions equal to removing nearly 120,000 passenger vehicles from the road.
Investment area
Equipment

Technology area
Methane detection and reduction

Investment maturity
Small scale commercial deployment

Investment figure
2000000

Low-carbon investment percentage
81-100%

Please explain
Hot tapping and stopping has been a practice for Dominion Energy Ohio for decades. To support methane reduction initiatives, we have purchased large diameter pipes (greater than 20 inches) to be more cost effective and reduce gas lost during blowdowns. We can expect capital payback of equipment purchase by end of 2020. This is dependent on number of jobs performed incorporating this process.

C-OG9.7

(C-OG9.7) Disclose the breakeven price (US$/BOE) required for cash neutrality during the reporting year, i.e. where cash flow from operations covers CAPEX and dividends paid/share buybacks.

C10. Verification

C10.1

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

<table>
<thead>
<tr>
<th>Scope</th>
<th>Third-party verification or assurance process in place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1</td>
<td>Third-party verification or assurance process in place</td>
</tr>
<tr>
<td>Scope 2 (location-based or market-based)</td>
<td>Third-party verification or assurance process in place</td>
</tr>
<tr>
<td>Scope 3</td>
<td>No third-party verification or assurance</td>
</tr>
</tbody>
</table>

C10.1a

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

Scope
Scope 1

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
C10.2

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

No, but we are actively considering verifying within the next two years
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

C11.1b

(C11.1b) Complete the following table for each of the emissions trading systems in which you participate.

RGGI

% of Scope 1 emissions covered by the ETS
100

Period start date
January 1 2018

Period end date
December 31 2018

Allowances allocated
0

Allowances purchased
950166

Verified emissions in metric tons CO2e
950166

Details of ownership
Facilities we own and operate

Comment
The emissions in metric tons CO2e were “certified” by the compliance entity, Dominion Energy, per the requirements of the Regional Greenhouse Gas Initiative (RGGI). RGGI does not require that emissions be verified. Additionally, compliance obligations under RGGI are in terms of CO2, not CO2e and in terms of U.S. short tons. Furthermore, compliance requirements for RGGI are on a three-year period. Therefore, “Allowances purchased” do not correlate with our 2018 purchases. The emissions reported are CO2 emissions only because RGGI relates to CO2 emissions only.
(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?

The Regional Greenhouse Gas Initiative (RGGI) is a market-based cap and trade program among nine Northeastern and Mid-Atlantic states (RI, CT, DE, MA, ME, MD, NH, NY, VT) to reduce emissions of carbon dioxide (CO2), the principal gas that contributes to climate change. The program establishes a regional budget (cap) of CO2 allowances and each state's allocation of CO2 allowances under the budget. Each state promulgated regulations (CO2 Budget Trading Program and Allowance Distribution Rules) consistent with the Model Rule. These regulations require electric power generators with a capacity equal to or greater than 25 MWe (megawatt electrical), to surrender a tradable CO2 allowance for each ton of CO2 they emit. Through quarterly allowance auctions, emission allowances are purchased and States invest the proceeds from the auctions into energy efficiency and conservation, renewable non-carbon emitting energy technologies, cost-effective direct rate relief for consumers and direct rate relief for low-income consumers.

One of Dominion Energy’s facilities owned in 2018, Manchester Street, is subject to RGGI. Beginning with calendar year 2009, RGGI requires that Dominion Energy cover each ton of CO2 direct stack emissions from these facilities with either an allowance or an offset. The allowances can be purchased through auction or through a secondary market. Dominion Energy demonstrated compliance through a combination of strategies including procurement of RGGI allowances in regional auctions, secondary market purchases of RGGI allowances, as well as greenhouse gas offset procurement. Dominion Energy periodically participated in RGGI allowance auctions and procured allowances to meet its estimated compliance requirements under RGGI for 2009 through 2018. In December 2018, Dominion Energy sold Manchester Street to a new owner, Starwood Energy. The RGGI allowances for the 2018 compliance year were transferred to Starwood Energy as part of the sale. Starwood Energy was responsible for demonstrating compliance with RGGI during 2018 in the first quarter of 2019.

The Dominion Energy Cove Point LNG Terminal contains four (4) units subject to RGGI through the Maryland CO2 Budget Program. The Dominion Energy Cove Point LNG Terminal complies with the Maryland CO2 Budget Program through the Maryland Limited Industrial Exemption Set-aside Account. To be eligible for the Maryland Limited Industrial Exemption Set-aside Account, the Dominion Energy Cove Point LNG Terminal has implemented a Maryland Department of the Environment (MDE) approved Climate Action Plan developed to reduce CO2 emissions across the entire Dominion Energy Cove Point LNG Terminal.

On May 27, 2019 the Virginia of Environmental Quality (DEQ) published its final carbon regulation that establishes a state cap-and-trade program for electric generating units in Virginia.

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
- Drive energy efficiency
- Drive low-carbon investment
- Stress test investments
- Identify and seize low-carbon opportunities
- Other, please specify (Customer negotiation)

**GHG Scope**
- Scope 1
- Scope 2
- Scope 3

**Application**
Price is applied to all business units with particular emphasis on the power generation business. Using a price for carbon allows Dominion Energy to quantify the cost impacts of CO2 emissions. It also allows for a “level playing field” when evaluating demand side resources of other zero or low emitting supply side resources. The price for carbon is used in all internal modeling of Dominion Energy's current and future assets.

**Actual price(s) used (Currency /metric ton)**
- 10

**Variance of price(s) used**
Depending on the carbon program being evaluated, and the time period, the price for carbon typically varies between ~$3 per Ton CO2 to ~$27/Ton CO2. The price reflected in the “Actual price” column reflects the midpoint of this range.

**Type of internal carbon price**
- Shadow price
- Implicit price

**Impact & implication**
Using a price for carbon allows Dominion Energy to quantify the cost impacts of CO2 emissions. It also allows for a “level playing field” when evaluating demand side resources of other zero or low emitting supply side resources. The price for carbon is used in all internal modeling of Dominion Energy's current and future assets. The Company has been modeling carbon prices in our Integrated Resource Plans since 2008. Specifically, the Company models the price of carbon in PLEXOS as a part of the dispatch cost. For example, if the coal units at our Chesterfield Power Station were being offered into the market at $20, the dispatch cost would increase to $30 after adding in a $10 carbon price.

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**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**
Climate change is integrated into supplier evaluation processes

**% of suppliers by number**
1.3

**% total procurement spend (direct and indirect)**
61

**% Scope 3 emissions as reported in C6.5**
0

**Rationale for the coverage of your engagement**
We work with the Electric Utility Industry Sustainable Supply Chain Alliance (EUISSCA) to engage our suppliers to be more sustainable. EUISSCA conducts an annual supplier survey that includes an assessment of environmental practices and determines whether these practices are standard across the supplier’s organization. We requested 70 of our suppliers to respond to the EUISSCA survey as they represent 61% of our total procurement spend.

**Impact of engagement, including measures of success**
Our membership with EUISSCA gives us the opportunity and forum to benchmark our environmental performance/progress against industry peers. Each year EUISSCA conducts a supplier survey that includes an assessment of environmental practices and whether those practices are standard across the supplier’s organization. The survey is extensive and provides questions for a range of suppliers and industries. In 2018, we had a 32% survey response rate. This equals 23 suppliers out of the total 70 suppliers we requested, which represents 61% of our total procurement spend. We consider this method of engagement a success if there is a year over year increase in the EUISSCA response rate. If a supplier does not meet the high environmental standards, then they may not be selected to continue being a supplier for Dominion Energy in the future. The high standards that the suppliers are held to, has helped to maintain environmental awareness as a focus in the services that are provided to Dominion Energy.

**Comment**
This reflects the 2017 procurement spend as the 2017 transactions guide the 2018 survey process.

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

**Type of engagement**
Education/information sharing

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

**% of customers by number**
7

**% Scope 3 emissions as reported in C6.5**
1.2

**Please explain the rationale for selecting this group of customers and scope of engagement**
ThermWise is our Utah program that promotes the use of energy-efficient appliances and practices to reduce natural gas usage. As this program is voluntary in nature, only a fraction of our customers participate, representing 7% of our customer base. The initial ThermWise energy assistance budget for 2018 was $24.5 million, with a target of more than 81,000 customers participating. The team forecasted saving 1.15 million dekatherms (Dth) of natural gas in 2018, which equates to the annual usage of nearly 14,500 customers. It is estimated that over 70,000 customers participated in the ThermWise program in 2018 with a natural gas savings of 950,000 Dth. An estimated $23 million was spent for energy efficiency programs. The savings were equivalent to more than 50,000 tons of CO2 avoided in 2018. The ThermWise Energy program generates a Comparison Report which is a customized report for Dominion Energy Utah customers who are interested in seeing how their energy-usage compares to similar homes in their area. In addition, the report provides tips on how best to manage energy use, cut costs and save money. The report is updated regularly to help customers measure their conservation progress.

**Impact of engagement, including measures of success**
ThermWise® is our Utah program to promote the use of energy-efficient appliances and practices to reduce natural gas usage. The initial ThermWise energy assistance budget for 2018 was $24.5 million, with a measure of success being more than 81,000 customers participating. The team forecasted saving 1.15 million Dth of natural gas in 2018, which equates to the annual usage of nearly 14,500 customers. It is estimated that over 70,000 participated in the ThermWise program in 2018 with a natural gas savings of 950,000 Dth, which is about 86% of our original forecasted goal. An estimated $23 million was spent for energy efficiency programs. The savings were equivalent to more than 50,000 tons of CO2 avoided in 2018 from ThermWise program in 2018, with a natural gas savings of 950,000 Dth. An estimated $23 million was spent for energy efficiency programs.

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<thead>
<tr>
<th>Type of engagement</th>
<th>Education/information sharing</th>
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</table>

<table>
<thead>
<tr>
<th>Details of engagement</th>
<th>Share information about your products and relevant certification schemes (i.e. Energy STAR)</th>
</tr>
</thead>
</table>

| % of customers by number | 100 |

| % Scope 3 emissions as reported in C6.5 | 0 |

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

Dominion Energy has an Energy Assistance team that travels across the state hosting and attending community events to engage with all of our customers on climate-related issues. The team provides low-cost/no-cost tips to reduce energy usage and information about available bill payment programs. To ensure the team is working in the areas of most need, demographic data is used to target the correct regions and market appropriately to drive participation. At events, the team uses a systematic approach to provide the most needed information. Along with providing energy-efficiency literature, hands on demonstrations on conservation products are used to ensure the customer can associate the products to the energy usage and the usage impact to their bills. In addition, the team gives the customer conservation product(s) that can be used in the home. These products include energy-efficiency kits, LED light bulbs, weather-stripping, caulking, faucet aerators, and hot water gauges. Using all of these measures provides a holistic approach of assisting with the immediate crisis as well as long-term solutions through changing customer behaviors. Since 2015, the Energy Assistance team has participated in over 1,500 outreach events, reaching more than 626,000 of our most vulnerable customers (at-risk, low income, seniors, veterans, and persons living with disabilities). The team's mission is to proactively educate them about how activities in the home impact their energy usage and therefore impact their utility bill.

Impact of engagement, including measures of success

The team measures success based on the increased number of requests and events completed each year since the program expansion in 2015. A total of 157 events were attended in 2015, with almost triple the number attended in 2018 at 460 events. The team is on track to increase the number of events to 480 in 2019. Beyond the educational component, the Energy Assistance team has distributed over 75,000 9W LED light bulbs to customers across Virginia. In one year, customers can save potentially more than $6.00 for each traditional 60W incandescent light bulb replaced by a 9W LED light bulb (average use of 3 hours/day). For 75,000 LED's, that is a potential savings of almost $450,000 annually or $10 million based on a 23-year average life span (savings are based on generic 11C/kWh – not indicative of Dominion Energy’s rate).

<table>
<thead>
<tr>
<th>Type of engagement</th>
<th>Other, please specify (Consumer education)</th>
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<table>
<thead>
<tr>
<th>Details of engagement</th>
<th>&lt;Not Applicable&gt;</th>
</tr>
</thead>
</table>

| % of customers by number | 0 |

| % Scope 3 emissions as reported in C6.5 | 0 |

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

The Company's consumer education initiatives include providing demand and energy usage information, educational opportunities, and online customer support options to assist customers in managing their energy consumption. The Company’s website has a section dedicated to energy conservation that contains helpful information for both residential and non-residential customers, including information about the Company’s DSM programs. Through consumer education, the Company is working to encourage the adoption of energy-efficient technologies in residences and businesses in Virginia and North Carolina. Examples of how the Company seeks to increase customer awareness include newsletters, news releases, social media, online calculators, and outreach.

Impact of engagement, including measures of success

Not tracked quantitatively
**Type of engagement**  
Education/information sharing

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

**% of customers by number**  
99

**% Scope 3 emissions as reported in C6.5**  
0

**Please explain the rationale for selecting this group of customers and scope of engagement**  
We encourage customers to reduce paper usage by choosing to participate in our eBill paperless billing program, which saves energy and decreases deforestation. Customers can create on-line accounts via dominionenergy.com to view and pay bills electronically and enroll in programs such as paperless billing, energy conservation, and the Dominion Energy Green Power® Program. All residential customers, which are approximately 2.5 million customers in Virginia and North Carolina, are invited to participate in the eBill paperless billing program. Key account customers are educated about Dominion Energy products and partnerships are developed to meet customer requests for renewables by building solar.

**Impact of engagement, including measures of success**  
Customers are reducing paper usage by choosing to participate in the Company’s paperless billing program, eBill. Nearly 43 percent of Virginia and North Carolina customers have chosen to receive their bill notification electronically. Customers can create on-line accounts to view and pay bills electronically and enroll in programs such as paperless billing, energy conservation, and the Dominion Energy Green Power Program. Further, customers want to do business electronically and the Company is providing the channel and options to do so. eBill is offered to customers located in our service territories in other states and we are continuously expanding adoption of the program.

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

Dominion Energy engages with other partners in the value chain in various ways to ensure the interests and concerns of its stakeholders are always incorporated. Renewable energy is an important aspect of Dominion Energy’s environmental strategy, and Dominion Energy engages with both customers and other partners to develop solar partnerships. Several of these programs are detailed in previous questions, including customer programs such as Net Metering, Solar Purchase programs, and the Dominion Energy Green Power Program; among other such programs are described here.

In 2017, we announced a partnership with DONG Energy (now called Ørsted) to move forward with developing two test turbines approximately 27 miles off the coast of Virginia as part of our Coastal Virginia Offshore Wind (CVOW) project. The announcement is the culmination of many years of collaboration dating back to 2011. We are the only regulated utility moving forward with an offshore wind installation. Stakeholders helped design and allow the project to be the first of its kind to go through certain types of federal permitting (some steps took 3 or more years). When the initial RFP resulted in high costs, more than 100 stakeholders and subject matter experts were gathered by Dominion Energy. The stakeholder interactions were professionally facilitated and resulted in a series of revised RFPs that helped drive out a significant amount of cost and ultimately led to the announcement with Ørsted in 2017. Dominion Energy has partnered with several vendors using new technology for methane emission reduction programs.

In 2017 the University of Virginia and Dominion Energy announced another partnership that would aid in the school’s efforts to meet its sustainability goals. Under a 25-year agreement, the University will purchase the entire output of a proposed 120-acre solar facility in Middlesex County. The solar facility, developed by Coronal Energy, will be constructed and owned by Dominion Energy. It will produce an estimated 15 MW of alternating current or about 9 percent of the University’s electric demand. The facility was expected to be operational in late 2018. The UVA Puller Solar facility joins the previously announced UVA Hollyfield Solar facility. In total, the two sites will produce 32 MW of solar energy and will offset about 21 percent of the University’s electric demand.

Dominion Energy also partners with about a dozen other Virginia colleges and universities, providing over $1.7 million in funding for a variety of renewable energy and alternative technology research projects. The projects include high-efficiency solar cells, advanced offshore wind technologies, and the integration of battery storage with solar distributed generation, among others.

As two examples in 2018, we have worked with Randolph-Macon College and Virginia Commonwealth University (VCU) on various research and development projects. For Randolph-Macon College, in Ashland, Virginia, we joined forces to host an annual pitch competition for both start-ups and students. The winning company received a $10,000 award and membership in the Dominion Energy Innovation Center. The 2018 company winner was Babylon Micro-Farms, which creates modular indoor farms to supply fresh produce year-round. The winning student teams earn the opportunity to pitch their ideas in front of a panel of judges and receive a cash prize and co-working space in the innovation center. For VCU, we have worked on ventures such as the Power the Future design-a-thon, a unique 24-hour challenge with the purpose of developing an app for Dominion Energy, and its multi-disciplinary Da Vinci Center.

In late 2018, Dominion Energy announced a $250 million joint venture with Smithfield Foods to capture waste methane from hog farms and convert that waste into clean, renewable natural gas (RNG). The Align RNG partnership will substantially reduce agricultural methane emissions while creating a renewable resource for energy consumers. Initial stages involve 93 farms built in North Carolina, Utah, and Virginia. Align Renewable maintains the “first four projects will produce enough energy to reliably power about 14,000 homes.” This would also reduce the amount of greenhouse gas emissions equal to removing nearly 120,000 passenger vehicles from the road.

The development of the annual Integrated Resource Plan (IRP) involves engagement and feedback from Dominion Energy stakeholders. Dominion Energy engages with Dominion Energy customers, non-governmental organizations, and regulators during the development of the IRP.

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?

<table>
<thead>
<tr>
<th>Other, please specify (Solar legislation)</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar legislation as a product of Rubin solar and the 2018 Grid Transformation and Security Act in Virginia.</td>
<td>We participated in Rubin Solar collaborative discussions with solar and environmental advocates, utilities, business associations, and developed and supported legislation such as community solar (SB 1393), agricultural generators (SB 1394), and expansion of solar permit by rule (SB 1395). The Grid Transformation and Security Act in Virginia legislation found 5,000 MW of large scale solar or wind energy in the public interest, 500 MW of small scale solar (1 MW or less) in the public interest, and 50 MW of rooftop solar in the public interest. The act also established an energy storage pilot—a key factor in wider adoption of solar energy while maintaining grid reliability. The Rubin Group brought forth legislation including one that establishes stakeholder groups to examine rate design alternatives for customers and another that tees up solar and energy efficiency for low income customers.</td>
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<table>
<thead>
<tr>
<th>Carbon tax</th>
<th>Undecided</th>
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<tbody>
<tr>
<td>While no carbon tax legislation is currently being actively considered at the federal level, Dominion Energy remains engaged with other companies that have supported creation of a federal economy-wide greenhouse gas emissions reduction program. In addition, through membership in trade associations and think tanks, Dominion Energy continues to be part of a dialogue among other companies about possible regulatory and legislative vehicles to curtail greenhouse gas emissions. In May 2019, Dominion Energy joined the CEO Climate Dialogue, a coalition of 12 Fortune 500 companies and environmental groups aimed to build bipartisan support for an economy wide federal climate policy that will increase regulatory and business certainty, reduce climate risk, and spur investment and innovation needed to meet science-based emissions reduction targets. The CEO Climate Dialogue will work to build bipartisan solutions that promote innovation and achieve meaningful, economy-wide emission reductions while ensuring technological leadership and continued economic growth.</td>
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<table>
<thead>
<tr>
<th>Energy efficiency</th>
<th>Support</th>
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<tr>
<td>Together with a broad diverse group of stakeholders, Dominion Energy engaged several times to discuss the key components of the energy-efficient legislation. As a result, the legislation was amended to reflect stakeholder input and therefore, was able to achieve more expansive support. We supported transformational legislations to enable the Company to install and promote significantly more renewable energy, energy efficiency, and grid modernization. Some highlights of the legislation include a determination that 5,500 MWs of renewable energy is in the public interest. This is an eleven-fold increase over the previous amount. It also commits the Company to filing $870,000,000 worth of energy-efficiency programs during the next 10 years. The legislation also calls for a stakeholder input process on key energy topics such as net metering, broad band access, and energy efficiency.</td>
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For each of the bills highlighted, expansion of access was a common theme. The community solar legislation was the first of its kind for Virginia and is supported by a broad group of stakeholders. The agricultural generator legislation provides an alternative compensation mechanism if elected by the agricultural self-generator and expands system size limits. The permit by rule legislation significantly reduces the time required for regulatory approval of solar projects 150 MWs or less. Moreover, Dominion Energy has committed to Virginia’s governor that it will have 3,000 MW of incremental solar or wind energy in production, under construction, under development, or under procurement by early 2022. There is currently no comprehensive carbon emission reductions legislation being actively considered by Congress. While Dominion Energy has supported economy-wide cap and trade legislation in the past when it was debated, current efforts are focused on conversations about the need for an economy-wide federal policy and what potential legislative or regulatory options might look like rather than on specific existing legislation given that legislation is not currently being contemplated.


Dominion Energy strongly supported significant legislation which was ultimately signed into law in 2018 named the Grid Transformation and Security Act, the legislation declares 5,500 MW of solar and wind energy in the public interest including specific carve out for offshore wind and rooftop solar. It also includes more than one billion dollars of future energy-efficiency filings and shareholder-funded programs to provide bill payment assistance and free weatherization to low-income customers. As a result of the legislation, Dominion Energy has since publicly committed to having 3,000 MW of renewable energy operational or under development in Virginia within the next 4 years. In January 2018, the Virginia DEQ issued a proposed rule to regulate carbon emissions from electric generating units in Virginia. In written comments, the Company generally supported the concept of designing a program that would allow for emissions trading and would position the program to be "trading-ready," to the extent the Commonwealth’s proposal pursues establishing a statewide emissions cap and also provided input on key features essential to designing a reasonable and workable program to address carbon emissions. Although a re-proposed version of the rule was finalized by the DEQ in May 2019, a state budget amendment provision prohibits implementation of the rule pending legislative approval. In October 2015, the U.S. EPA published final regulations under sections 111(b) and 111(d) of the Clean Air Act, known as the "Carbon Pollution Standards" and the "Clean Power Plan," respectively. Following the publication of the final regulations, several states and parties challenged the Clean Power Plan. Dominion Energy joined other utilities and parties to intervene in that case in support of the flexible compliance options provided by the Clean Power Plan.

Dominion Energy is committed to transparency and disclosure of its greenhouse gas emissions and began reporting greenhouse gases, including methane emissions, from our natural gas and electric businesses years before being required by the Environmental Protection Agency (EPA). This includes emissions from electric-generating stations with units subject to the Acid Rain program; electric transmission and distribution system containing SF6 in insulating equipment; and natural gas processing, transmission, distribution, and storage facilities. Dominion Energy willingly discloses its methane emissions, estimation methods, and reduction practices to the public. The Company has one of the most comprehensive public methane disclosures of any peer gas company. Dominion Energy performs greenhouse gas leak surveys and uses methods specified by the EPA under the mandatory reporting program, along with publicly-available and peer-reviewed protocols, to estimate methane emissions beyond what is required for submittal to EPA. Measurement and estimation methods follow those specified in EPA’s Mandatory Greenhouse Gas Reporting Program, as well as other publicly-available industry protocols for sources not covered by that rule. In 2018, we published our third methane management report on our website dominionenergy.com, which discusses our efforts to measure, mitigate, and reduce methane emissions from our natural gas business. The fourth methane management report was released in 2019. Dominion Energy actively engaged in the public comment and review process during EPA’s development of the mandatory GHG reporting rules under 40 CFR Part 98. The Company generally supported the reporting rules and provided recommendations to improve technical and operational accuracy.

In March 2016, Dominion Energy and four of its subsidiaries joined the EPA as founding partners in the new Methane Challenge program and submitted implementation plans in September 2016. In 2017, Dominion Energy met with Congressional offices to encourage continued funding of the Methane Challenge and Natural Gas Star programs. In August 2018, Dominion Energy joined One Future Coalition as a founding member. One Future coalition is a unique coalition of leading companies who are working together to reduce methane emissions across the natural gas supply chain, with a goal to lower emissions to 1% by 2025.

While no cap and trade legislation is currently being actively considered at the federal level, Dominion Energy remains engaged with other utilities that have supported creation of a federal economy-wide cap and trade program in the past. In addition, through membership in trade associations and think tanks such as the Center for Climate and Energy Solutions, Dominion Energy continues to be part of a dialogue among other companies about possible regulatory and legislative vehicles to curtail greenhouse gas emissions. In May 2019, Dominion Energy joined the CEO Climate Dialogue, a coalition of 12 Fortune 500 companies and environmental groups aimed to build bipartisan support for an economy side federal climate and policy that will increase regulatory and business certainty, reduce climate risk, and spur investment and innovation needed to meet science-based emissions reduction targets. The CEO Climate Dialogue will work to build bipartisan solutions that promote innovation and achieve meaningful, economy-wide emission reductions while ensuring technological leadership and continued economic growth.

The Mandatory Greenhouse Gas Reporting is a mandatory rule that Dominion Energy supported.
(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
American Gas Association Center for Liquefied Natural Gas Consumer Energy Alliance Edison Electric Institute Greater Akron Chamber of Commerce Greater Cleveland Partnership Interstate Natural Gas Association of America National Association of Manufacturers New England Power Generators Association Nuclear Energy Institute U.S. Chamber of Commerce Virginia Chamber of Commerce Others

Is your position on climate change consistent with theirs?
Mixed

Please explain the trade association’s position
Dominion Energy belongs to a wide range of federal and state trade associations reflecting the business in which we operate. These organizations engage to varying degrees and advance a range of positions on climate change issues. We do not necessarily subscribe to an organization’s beliefs or positions by virtue of various memberships.

How have you influenced, or are you attempting to influence their position?
Dominion Energy works with trade associations in its government relations activities. Depending on their roles, these organizations may be subject to lobbyist registration and disclosure reporting obligations with their reports made available to the public by the federal and state agencies overseeing lobbying activities. For the trade associations where Dominion Energy has contributed $50,000 or more and the organization informs the Company a portion of annual dues was used for lobbying, Dominion Energy discloses the name of the trade association and the dollar amount used for lobbying in its Annual Report of Contributions which is discussed above.

C12.3d

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

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

Dominion Energy actively participates in the political process to help shape policies that advance our business strategies and goals, promote effective public and government relations, and serve the interests of key stakeholder groups. By engaging with elected officials, regulators, community and business leaders, and environmental and safety agencies, among others, we strive to conduct our business as transparently as possible in hopes of building public trust and forming lasting partnerships that are mutually beneficial.

Dominion Energy engages registered lobbyists, both federal and state, to support its legislative and regulatory activities. These lobbyists are carefully selected and are engaged only with the approval of our senior governmental affairs officer at the appropriate entity.

Management provides regular updates on lobbying activities to the CEO or to the President of the applicable subsidiary. When appropriate, management also discusses Company lobbying activities with Dominion Energy’s Board of Directors as part of its oversight responsibilities.

In May 2019, Dominion Energy joined the CEO Climate Dialogue – a coalition of 12 Fortune 500 companies and environmental groups aimed to build bipartisan support for climate policies that will increase regulatory and business certainty, reduce climate risk, and spur investment and innovation needed to meet science-based emissions reduction targets. The dialogue includes support of a carbon tax and other measures designed to reduce CO2 emissions. Per our CEO, the group aims to “build bipartisan solutions that promote innovation and achieve meaningful, economy-wide emission reductions while ensuring technological leadership and continued economic growth.”

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?

Dominion Energy centralizes communication and implementation of environmental policies through our Environment and Sustainability business group to ensure direct and indirect activities are consistent with our climate change strategy. We have a clear and consistent environmental policy statement implemented through a recently enhanced environmental management system. As part of our process, all activities conducted by the Board and employees on behalf of the Company are reviewed through checks and balances to ensure consistency with our overall climate change strategy. Through engagement with a wide range of federal and state trade associations reflecting the business in which we operate, we communicate our positions to industry peers. We establish and revise our positions as issues and regulations evolve and we continuously validate the positions through corporate executive and management briefings. From time to time our position differs from that of a trade group and we may not agree to sign-on to their positions if they are found to be inconsistent with our overall climate change strategy. We do not necessarily subscribe to an organization’s beliefs or positions by virtue of membership. All of these components of our overall climate change strategy guide Dominion Energy’s engagement with our direct and indirect internal and external stakeholders to ensure consistent implementation of our climate-related 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).

<table>
<thead>
<tr>
<th>Publication</th>
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Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment

Publication
In mainstream reports

Status
Complete

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2019 Definitive Proxy.pdf

Page/Section reference
p. 1-65

Content elements
Governance
Strategy
Risks & opportunities
Emission targets

Comment

Publication
In voluntary sustainability report

Status
Complete

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DOM18CSR-WorkingTowardASustainableFuture.pdf

Page/Section reference
p. 2 - 219

Content elements
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Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment

Publication
In voluntary sustainability report

Status
Complete

Attach the document

Page/Section reference
p. 1 - 28

Content elements
Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment
C14. 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.

It should be noted that Dominion Energy only operates transmission and distribution businesses within the US. According to C-EU8.4 from the 2019 Guidance Document, the question only pertains to “global” transmission and distribution businesses, which is consistent with the 2018-2019 Changes document and last year's Climate questionnaire. Therefore, given this interpretation of the question, Dominion Energy has answered “No” to the question of if we have a global transmission and distribution business.
(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

Row 1  Executive Vice President Chief Financial Officer and Treasurer; Chief Financial Officer  Chief Financial Officer (CFO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

I am submitting my response  Public  Investors

Please confirm below

I have read and accept the applicable Terms