Dominion Energy - Water Security 2020

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

Dominion Energy, Inc. (Dominion Energy) is one of the nation's largest producers and transporters of energy. As of December 31, 2019, Dominion Energy has a portfolio of approximately 30,700 megawatts (MW) of electric generating capacity; 10,400 miles of electric transmission lines, 85,000 miles of electric distribution lines, 14,600 miles of natural gas transmission, gathering, and storage pipelines and 103,400 miles of gas distribution pipeline. Dominion Energy operates one of the nation's largest natural gas storage systems with approximately one trillion cubic feet of storage capacity and serves more than 7 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 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 includes Dominion Energy South Carolina (DESC), which is primarily engaged in the generation, transmission and distribution of electricity in portions of South Carolina and the distribution of natural gas in North Carolina and South Carolina.

Dominion Energy remains focused on managing its carbon footprint while providing safe, reliable, affordable and clean energy to customers. Dominion Energy continues to add utility-scale solar capacity and currently has the third-largest owned solar fleet among utility holding companies in the U.S. backed by over $2 billion of investment from 2018 through 2020. Dominion Energy has nearly 4,600 MW of solar generating capacity in operation or under development in nine states. The Coastal Virginia Offshore Wind Commercial project is a 2,556 MW offshore wind project announced in September 2019 with anticipated completion in 2026. The Company employs traditional hydropower at seven locations in Virginia, North Carolina, and South Carolina.

Dominion Energy takes pride in its environmental stewardship. Since 2003, Dominion Energy has donated nearly $32 million to a wide variety of environmental projects across its footprint. Dominion Energy has reduced its water intensity from 2000 by nearly 50% while simultaneously reducing both its carbon emissions and carbon intensity. Dominion Energy has been a leader in reducing greenhouse-gas emissions, cutting both carbon dioxide and methane emissions substantially, proactively and well before relevant federal or state legal requirements. Over the next 15 years, the company plans to invest up to $55 billion in emissions-reduction technologies including zero-carbon generation and energy storage, and renewable natural gas. In addition, between 2018 and 2025 we expect to retire more than four gigawatts of coal- and oil-fired electric generation.

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, and Dominion Energy reports net megawatt-hours (MWh) rather than gross MWh. Please note, the estimated financial impact figures provided represent our exposure prior to any possible insurance or rate cost recovery, which could reduce the financial impact to the Company. While Dominion Energy, Inc. used its best effort to produce accurately and timely information as of the date of submission to the CDP, we make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the information contained in this report for any purpose. We have responded to this questionnaire to provide some basic facts about our water use. Information is being provided as of the date requested and we undertake no obligation to correct or update any information provided herein to reflect developments after such information has been provided. Past water use information is not necessarily indicative of future water use information and does not guarantee future water use information. 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. In July 2020, Dominion Energy announced the proposed sale of substantially all of its Gas Transmission and Storage (GTS) business. These developments did not affect 2019 operations, however, so this report will include information about GTS.

W-EU0.1a

(W-EU0.1a) Which activities in the electric utilities sector does your organization engage in?

Electricity generation
Transmission
Distribution
Other, please specify (Smart grids and Battery storage)

W-EU0.1b

(W-EU0.1b) For your electricity generation activities, provide details of your nameplate capacity and the generation for each technology.

	Nameplate capacity (MW)	% of total nameplate capacity	Gross electricity generation (GWh)
Coal – hard	5388	19.8	13659.11
Lignite	0	0	0
Oil	2143	7.9	123.32
Gas	10926	40.3	49357.3
Biomass	153	0.5	1007.67
Waste (non-biomass)	0	0	0
Nuclear	5999	22.1	49316.34
Fossil-fuel plants fitted with carbon capture and storage	0	0	0
Geothermal	0	0	0
Hydropower	538	2	978.91
Wind	150	0.6	597.87
Solar	1827	6.8	3037.88
Marine	0	0	0
Other renewable	0	0	0
Other non-renewable	0	0	0
Total	27124	100	118078.45

W-OG0.1a

(W-OG0.1a) Which business divisions in the oil & gas sector apply to your organization?

Upstream
Midstream/Downstream

W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	January 1 2019	December 31 2019

W0.3

(W0.3) Select the countries/areas for which you will be supplying data.

United States of America

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

USD

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

Companies, entities or groups in which an equity share is held

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Electric Transmission and Distribution Operations	The Company is fully disclosing the largest known sources of water inputs and outputs, which includes water withdrawn or used by our Company at our electric generating stations. We do not track all types of water inputs and outputs for our electric transmission or distribution facilities. As of December 31, 2019, Dominion Energy's portfolio of assets includes approximately 10,400 miles of electric transmission lines and 85,000 miles of electric distribution lines. Individually and collectively, water used at these facilities is significantly less than water withdrawn or used at our electric generation facilities. Therefore, we are not including information from these facilities. In general, these facilities purchase water from municipal water authorities or withdraw water from wells. Water risk at these facilities is generally very low. Under rare circumstances, water pollution incidents may occur at our electric transmission and distribution facilities from time to time notwithstanding our commitment to one hundred percent environmental regulatory compliance. For example, in 2019, two electric distribution relocation-widening projects involved water-related penalties. In both instances, work proceeded without all environmental and construction permits. Upon discovery of the discrepancies, the Company ceased work, obtained permits, and arranged appropriate mitigation. To prevent future incidents, we created a new formal environmental screening process and incorporated a formal hand-off process for all permits from environmental to operations personnel. Dominion Energy Virginia allocated five full-time staff to screen projects for environmental requirements.
Call Centers, Office Buildings, and other Administrative Uses	The Company is focusing on the largest known sources of water inputs and outputs, including water withdrawn or used by our Company at our electric generating facilities and certain gas transmission, storage, and production locations. We have service centers, call centers, office buildings, and other administrative offices, but do not track all types of water inputs and outputs for these facility types. Individually and collectively, water used at these facilities is significantly less than water withdrawn or used at our electric generation stations, so we are not including information from these facilities. In general, these facilities purchase water from municipal water authorities and some water billing information is available for some of these facilities. In the interest of full disclosure, we acknowledge that water pollution incidents may occur at our administrative and operations facilities from time to time notwithstanding our commitment to one hundred percent environmental regulatory compliance. We strive for Leadership in Energy & Environmental Design (LEED) Silver-level certification in new office construction, not only to encourage environmental stewardship, but also to provide an optimized work environment for employees. LEED building practices support healthier, more productive workplaces, reduce stress on the environment by encouraging energy and resource-efficient buildings, and produce savings from increased building value and decreased utility costs. LEED-standard plumbing lowers water usage by 35%. In 2019, construction was finished on our new Richmond, VA headquarters, 600 Canal Place, which received its LEED Gold certification in early 2020. Our new Jackson Street office in Lima, Ohio also received its LEED Silver certification in 2019, and was recognized as a 2019 "Stormwater Superstar!" by the City of Lima and Allen Soil and Water Conservation District. "Dominion Energy updated their Jackson Street campus along the Ottawa River, which involved considerable earth disturbance during construction. Their attractive landscape design, use of green space to manage stormwater runoff, and impressive efforts during construction to control erosion and sediment have earned them a 2019 Stormwater Superstar distinction." In renovations, and in building operation, we leverage LEED best practices, including low-flow water fixtures, water-efficient landscaping, and LED lighting.

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Neutral	Direct Use: Some of our electricity generating stations rely on freshwater, either surface water or groundwater, for a variety of primary uses including, but not limited to, non-contact and ancillary equipment cooling, internal processes, air pollution control, and sanitation. "Vital" was chosen as several of our largest power stations are dependent on freshwater in order to continue operations. The importance of freshwater in our operations is reflected in our target to continually reduce freshwater withdrawn and to achieve a 50% reduction by 2030 (from 2000 levels) in freshwater withdrawn per megawatt-hour (MWh) of electricity generated. We have contingencies, protocols and mechanical systems in place to manage variations in water quality. We anticipate that future water dependency from direct use will decrease slightly as the Company transitions to lower water use for power generation (e.g. retirement of units such as Pittsylvania and Mecklenburg and installation of additional solar sites). Indirect use: Good quality freshwater is primarily used for the development of fuel sources. We acknowledge that freshwater is essential to some of our suppliers. However, we are not aware of any current indirect water-related risks that cannot be actively handled and managed, leading to the selection of "neutral." We do not anticipate the importance of indirect water dependence will differ from "Neutral" in the future because we maintain a robust supply chain system, including but not limited to, alternative suppliers of goods and services should certain suppliers not be able to meet our needs.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Not very important	Direct Use: Some of our electricity generating stations (e.g. Millstone Power Station) rely on recycled and brackish surface water, primarily for non-contact and ancillary equipment cooling. "Important" was selected as these stations require large amounts of recycled or brackish water in order to continue operations. The importance of recycled water is reflected in our facility-level goal to increase water recycling at the Wexpro produced water treatment system at the Canyon Creek Unit Produced Water Evaporation Facility. We anticipate that future water dependency from direct use will decrease slightly as the Company transitions to lower water use for power generation and increases water recycling. However, the overall decrease will most likely fall within the 25% variation range, which we define as "about the same." Indirect Use: There is little use of brackish water in our indirect operations, though it is used heavily in our direct operations. Recycled and brackish water can be used for non-contact and ancillary equipment cooling in manufacturing equipment and supplies the Company purchases (e.g. paper). Similar to the situation for freshwater, we acknowledge that water is essential to our suppliers. However, we are not aware of any current water-related risks in our supply chain or that cannot be actively handled and managed, leading to the selection of "Not very important." We do not anticipate the importance of indirect recycled, brackish and produced water dependence will differ from "Not very important" in the future because we maintain a robust supply chain system, including but not limited to, alternative suppliers of goods and services should certain suppliers not be able to meet our needs.

W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	All power stations and gas operations within scope measure or estimate water withdrawals. Methods of withdrawal measurement and estimation employed at our facilities include flow totalizers, other flow meters, pump curves and estimations based on water pump run times. The frequency of measurement and estimation vary depending on facility but water withdrawals using flow meters and pump curves are often monitored daily whereas estimated withdrawals are more likely to be calculated on a weekly or monthly basis. For example, our North Anna facility monitors circulation water volumes daily using a flow meter. Several stations use a distributed control system (DCS) flow meter that collects data continuously to monitor total water withdrawal volume.
Water withdrawals – volumes by source	100%	The primary sources of water at our power stations and disclosed gas operations are surface water withdrawals, groundwater withdrawals, and water provided by a third party (municipal or industrial). Water withdrawals are measured or estimated by source at all of our power stations reported in this document. The frequency of withdrawal measurement and estimation depends on the facility. For example, water intakes can be metered and flow data compiled monthly (e.g. at Chesterfield Power Station), or flow volumes can be calculated based on the time the water intake pump is operating and recorded hourly. For example, at Mount Storm Power Station, each water intake pump motor amps are monitored, recorded, and archived. The pump motor amp archive is reviewed to see when the pumps were running. If the pumps were running, the hourly flow was estimated by referring to the pump's performance curve.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	100%	Dominion Energy Wexpro typically quantifies the volume of water produced during extraction and production operations by working with certified contractors and using standard methods (e.g. tank gauging and strapping charts). During the extraction process, produced water goes through a separator, which diverts water from any gas and the water goes into a holding tank. When the tank is nearing full, the water volume is measured by gauge during the transfer to a truck. The frequency with which produced water volumes are measured varies from daily to weekly. A less common method is employed at our Trail and Canyon Creek fields, and two wells at our Kinney field. Gathering lines run directly from the wells to a disposal facility. This has environmental benefits, because it reduces truck traffic and therefore emissions, as well as wildlife disturbance. The frequency with which produced water is measured by flow meter in gathering lines is continuous.
Water withdrawals quality	51-75	Generally, the quality of municipal water is not monitored by the Company, because there are regulatory requirements that the water be of a specific quality. Of our power generating stations and within-scope gas facilities that withdraw from surface water, slightly more than half regularly monitor withdrawal quality based on water permit limits, though a majority of these facilities have assessed incoming water quality at some point in their operations. The method and frequency of withdrawal quality measurements vary by facility but is often completed monthly or annually unless there are regulatory requirements to monitor quality more frequently. At stations that monitor water quality, water samples are gathered and analyzed by Dominion Energy biologists and environmental professionals. For example, water chemistry of Mt. Storm Lake is evaluated annually during other biological monitoring by Dominion Energy biologists.
Water discharges – total volumes	100%	All power stations and gas operations within scope measure or estimate water discharges. The majority of stations report discharge volume information through stormwater discharge permits on a monthly basis. The method and frequency of discharge measurements and estimations varies by facility and discharge point; however, the majority of permitted discharges use flow meters to calculate the total volume of water discharges on a continual, daily, or monthly frequency. For example, Chesterfield Power Station monitors some discharge volumes continuously while other stations measure on a monthly basis. Some once-through cooling water discharges are estimated based on volume withdrawn. Several stations use a distributed control system (DCS) flow meter that collects data continuously to monitor total water discharges. To the extent possible, volumes of discharges comprised of only stormwater have been removed from reported totals.
Water discharges – volumes by destination	100%	All power stations & gas operations in scope measure or estimate water discharges by destination. Most stations report discharge volume data through industrial storm water permits. Discharges are measured at different discharge points (or outfalls), internal & external to each facility. The method & frequency of discharge measurements and estimations varies by facility & discharge point, but most permitted discharges use flow meters to calculate total water discharge volume continually, daily, or monthly. For example, stormwater leaves Clover Power Station via settling basin into a creek, & the treated process water discharges to Roanoke River. Discharges are monitored separately. Stormwater discharge flow volumes & standard water quality parameters are measured at least annually in the first 30 minutes of a 0.1-inch rain event. Measurement of process water flows ranges from once a day to 5 days a week. Most stations use flow metering to monitor discharge volumes by destination.
Water discharges – volumes by treatment method	100%	All power stations measure or estimate water discharges by treatment method. The method and frequency of discharge measurements and estimations varies by facility and by discharge point. For example, Clover Power Station passively treats stormwater using a sedimentation basin whereas process water is treated through sedimentation, pH adjustment, and/or chemical addition (e.g. chlorination/dechlorination). The monitoring frequency of the water volumes varies and ranges from daily to weekly for process water, and annually for stormwater. The method of measurement for discharge volumes by treatment method is generally metered in accordance with water permit limits.
Water discharge quality – by standard effluent parameters	100%	All power stations and gas operations in scope measure or estimate water discharges and collect effluent water quality data. Most stations report water quality information through industrial stormwater permits. Discharges are measured at different discharge points (or outfalls) internal and external to each facility. The water quality parameters evaluated vary by facility and discharge point. The method and frequency of discharge measurements and estimations also varies by facility and discharge point. For example, at the Chesterfield Power Station, the treated water discharging from the CCR Pond Closure Project is monitored three times a week for water quality indicators, including total suspended solids, pH, temperature, and oil and grease. Monitoring results are reported weekly. Additionally, there is monthly testing for toxicity. The method of measurement for discharge quality by standard effluent parameters is generally metered and tested in accordance with water permit limits.
Water discharge quality – temperature	76-99	At the majority of our power stations that discharge process water to surface water, the temperature of the discharge or heat rejection of the units is monitored and reported to the appropriate state agency. The method and frequency of discharge measurements and estimations varies by facility and discharge point. For example, our Bear Garden facility monitors discharge temperature on a continuous basis using a calibrated device immersed in the wastewater until the reading is stabilized, this data is recorded as a daily average. The North Anna Power Station monitors water temperature at least once per week using a calibrated device, which is immersed in the wastewater until the reading is stabilized. We also record and monitor water temperature of receiving water bodies at various locations in the water body with a handheld immersed temperature gauge during biological sampling, which occurs semi-annually (e.g. at Mount Storm and North Anna Power Stations).
Water consumption – total volume	100%	Water consumption at our power stations can occur via employee usage, evaporative process (e.g., cooling towers), thermal input from once-through cooling, or incorporation into waste materials. Water consumption is measured at all facilities in the scope of this response (i.e. significant water uses). All power stations measure or estimate water consumption from facility processes. The vast majority of water withdrawn at facilities with once-through cooling is discharged back to the source. Estimates or actual measurements of water consumption volume are provided in this report. The method & frequency of consumption measurements and estimations varies by facility. While methods of measurement vary, most facilities calculate consumption by comparing total withdrawals with total discharges to account for consumptive loss during the power generating process. Water consumption is often calculated annually, but monthly data is available to evaluate water consumption more often, if needed.
Water recycled/reused	26-50	Water is reused & recycled in different ways, leading to variable methods & frequency of measurement. Rosemary Power Station reuses rainwater water for cooling. Some facilities use flow meters to calculate water that is recycled for power generation & other operations by measuring the water diverted for uses like make-up water to the scrubber system. Other facilities estimate the amount reused based on the reduction of water withdrawals for other purposes like condenser cooling. Facilities that meter recycled water measure it monthly. In 2019, equipment was installed at Warren County Power Station to accurately measure recycled water. Engineering, maintenance, operations & leadership were involved in the scope, design, execution, testing & operations of the measurement system. In 2019, employees began receiving updates on the portion of purchased water that was recycled onsite. Facilities that estimate recycled water calculate the total water reused on a monthly or annual basis.
The provision of fully-functioning, safely managed WASH services to all workers	100%	All of our power stations and gas operations within scope provide employees with access to clean drinking water, sanitary facilities and solid waste management. Solar power facilities with no on-site staff do not. Water provided to employees is 100% safely managed because the company utilizes municipal water, well water or bottled water. Each of these delivery methods are required by federal and state law to meet safe drinking water requirements. For example, at Dominion Energy locations with non-transient non-community water systems, we are required to report water quality (e.g. bacteria and nitrate) as dictated by the state permit (could be monthly, quarterly or annually depending on the system size and type). These services are measured by monthly water bills if using a municipal water source and metered or estimated if groundwater is used to manage water, sanitation, and hygiene (WASH) services

W-EU1.2a

(W-EU1.2a) For your hydropower operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations measured and monitored	Please explain
Fulfilment of downstream environmental flows	100%	We release environmental flows in accordance with our Federal Energy Regulatory Commission licenses and National Pollutant Discharge Elimination System (NPDES) permits. Our estimated hydroelectric flows for 2019 in mega liters per year are as follows: Neal Shoals (Broad River)= 1,101,326; North Anna (North Anna River) = 405,153; Parr (Broad River) = 1,954,685; Saluda (Saluda River) = 1,120,919; Stevens Creek (Savannah River) = 4,527,400; Gaston (Roanoke River) = 80,819,939; Roanoke Rapids (Roanoke River) = 66,524,575; Bath County (Back Creek) = 865,096; and Fairfield (Broad River) = 4,159,482. The Bath County and Fairfield power stations are unique among our hydroelectric power stations in that water is stored within two impoundments of differing elevations. In these pumped storage scenarios, water is released from the higher to the lower impoundment through reversible turbines when the demand for electricity is high. Later, when the demand is reduced, the turbines are used to pump water from the lower impoundment back into the upper impoundment. Not all of the water flowing into the pumped storage impoundments is retained. A minimum flow is continuously released to Back Creek and little Back Creek (Bath County) and the Broad River (Fairfield) to sustain the downstream aquatic ecosystems. During times of high runoff, this flow is increased accordingly. The North Anna hydro units are located at the Lake Anna Dam and are associated with the North Anna Power Station, a nuclear power station.
Sediment loading	Not monitored	We do not monitor sediment loading from our hydroelectric facilities.
Other, please specify	100%	We conduct water quality monitoring and biological monitoring at our hydroelectric facilities to study and manage the diversity of aquatic life in the areas of our hydroelectric operations. For example, in 2009, the Roanoke Rapids and Gaston Hydropower Project in North Carolina began operating eel ladders, or “eelways,” to capture, count, and transport American Eels upstream of the Roanoke Rapids Dam. The eels are transported above the dam, so they can access their historic range. To date, more than 2 million eels have passed upstream of the Roanoke Rapids Power Station, and 37,702 were passed upstream in 2019. In 2018, transport of eels above the Gaston dam commenced and 1,140 were passed upstream in 2019. Dominion Energy has transported 1,615 eels above Gaston Power Station since 2018. New and improved passage facilities at Gaston Power Station have been designed with input from federal and state resource agencies and are scheduled to be constructed and operational in 2020. Simultaneously, Dominion Energy is researching options to provide safe, timely, and effective downstream passage for out-migrating adult American Eels from Roanoke Rapids Lake.

W1.2b

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	11501416	About the same	For the purpose of questions comparing values to the last reporting year, we are defining the change from the previous year as follows: • greater than 50% less = “Much Lower” • 25%-50% less = “Lower” • 25% less to 25% more = “About the Same •25%-50% more = “Higher” •greater than 50% more = “Much Higher.” Our withdrawal volume in 2019 was about the same as in 2018, falling within the 25% less to 25% more margin of “About the same,” because our operations required a similar amount of water withdrawal volumes. This analysis includes the addition of several facilities in the 2020 Water CDP disclosure due to the SCANA merger, however the Company’s total withdrawals did not change significantly. Our future water withdrawal volumes may vary, driven by our future generation portfolio. We anticipate that as we bring on new generation using little or no water that water withdrawals will be about the same or lower and water intensity will be reduced. We are reporting water usage based on percent equity.
Total discharges	11612614	About the same	For the purpose of questions comparing values to the last reporting year, we are defining the change from the previous year as follows: • greater than 50% less = “Much Lower” • 25%-50% less = “Lower” • 25% less to 25% more = “About the Same •25%-50% more = “Higher” •greater than 50% more = “Much Higher.” Our discharges in 2019 were about the same as in 2018, falling within the 25% less to 25% more margin of “About the same,” because our discharge levels remained relatively the same as our operational processes did not change from the previous year. This analysis includes the addition of several facilities in the 2020 Water CDP disclosure due to the SCANA merger, however the Company’s overall total discharges did not change significantly. As we transition to less water dependent power generation, we anticipate that future water discharges will be about the same or lower. We are reporting water usage based on percent equity.
Total consumption	25220	Higher	We are defining the change from the previous year as follows: • greater than 50% less = “Much Lower” • 25%-50% less = “Lower” • 25% less to 25% more = “About the Same •25%-50% more = “Higher” •greater than 50% more = “Much Higher.” Our total consumption in 2019 showed an increase based our preceding definition of change for reporting to the CDP. Water consumption at our power stations can occur through employee usage, evaporative process (e.g., cooling towers), thermal input from once through cooling, or incorporated into waste materials. All our power stations measure or estimate water consumption associated with some facility processes. The vast majority of water withdrawn at facilities with once-through cooling is discharged back to the source. Total consumption values increased from 2018 due to the addition of several South Carolina power stations that were not included in the 2018 water accounting. Reported total consumption values may also have increased due to the influence of stormwater in our water budgets. There was less overall precipitation in 2019 compared to 2018 and therefore lower discharges in our geographical locations, which increases the reported value for consumption. We anticipate our future water consumption to be about the same or lower as we transition to less water intensive power generation. Using the formula Withdrawal = Discharge + Consumption, it is clear that the reported figures do not perfectly balance; this can be attributed to the fact that a number of facilities reuse and recycle water, causing it to potentially get double-counted as a “withdrawal” when it comes into the facility but never as a “discharge” since it does not leave the perimeter of the facility, as well as facilities not fully measuring or monitoring evaporative loss from power generation. We report water usage by percent equity.

W-OG1.2c

(W-OG1.2c) In your oil & gas sector operations, what are the total volumes of water withdrawn, discharged, and consumed – by business division – and what are the trends compared to the previous reporting year?

	Volume (megaliters/year)	Comparison with previous reporting year %	Please explain
Total withdrawals - upstream	505	About the same	For the purpose of questions comparing values to the last reporting year, we are defining the change from the previous year as follows: • greater than 50% less = "Much Lower" • 25%-50% less = "Lower" • 25% less to 25% more = "About the Same •25%-50% more = "Higher" •greater than 50% more = "Much Higher." Dominion Energy's gas infrastructure operations, including gas extraction, processing, distribution, transmission, gathering, by-products extraction, and storage operations, continue to withdraw and use significantly less water as compared to our electric generation facilities. The Company endeavors to further develop the disclosure of significant water uses, particularly where water targets are set. As such, our total reported upstream withdrawals remained the same compared to the previous year. Dominion's upstream water withdrawals remained about the same (within a 25% variation) because our production output remained relatively the same throughout 2019. The reported volume of 505 megaliters (MGL)/year includes water withdrawn and used by our Gas Transmission & Storage, Gas Distribution, and Wexpro extraction and production facilities. We anticipate that in future years, the total upstream withdrawals for these operations will remain relatively the same.
Total discharges – upstream	212	About the same	For the purpose of questions comparing values to the last reporting year, we are defining the change from the previous year as follows: • greater than 50% less = "Much Lower" • 25%-50% less = "Lower" • 25% less to 25% more = "About the Same •25%-50% more = "Higher" •greater than 50% more = "Much Higher." Dominion Energy's gas infrastructure operations, including gas extraction, processing, distribution, transmission, gathering, by-products extraction, and storage operations continue to discharge and use significantly less water as compared to our electric generation facilities. The Company endeavors to further develop the disclosure of significant water uses, particularly where water targets are set. As such, our total reported upstream discharges in 2019 are about the same compared to 2018. Dominion's upstream discharges remained about the same (within a 25% variation) because our year over year production output remained relatively the same. We anticipate that in future years, the total upstream discharges will remain relatively the same. The reported volume of 212 MGL/year includes water discharge from our Gas Transmission & Storage, Gas Distribution, and Wexpro extraction and production facilities.
Total consumption – upstream	294	About the same	For the purpose of questions comparing values to the last reporting year, we are defining the change from the previous year as follows: • greater than 50% less = "Much Lower" • 25%-50% less = "Lower" • 25% less to 25% more = "About the Same •25%-50% more = "Higher" •greater than 50% more = "Much Higher." The Company is fully disclosing the largest known sources of water inputs and outputs. Dominion Energy's gas infrastructure operations, including gas extraction, processing, distribution, transmission, gathering, by-products extraction, and storage operations continue to consume significantly less water as compared to our electric generation facilities. The Company endeavors to further develop the disclosure of significant water uses, particularly where water targets are set. As such, we are reporting a broader scope of upstream consumption. The reported volume of total consumption has remained about the same in 2019 as compared to the 2018 because it is consistent with our definitional precedent of "about the same" (<25% change). Total consumption was about the same as the previous year because our production output related to upstream sources remained about the same, and we anticipate that in future years, the total upstream consumption by upstream operations will remain relatively the same.
Total withdrawals - midstream/downstream	2	Higher	Dominion Energy's gas infrastructure operations, including gas extraction, processing, distribution, transmission, gathering, by-products extraction, and storage operations; continue to withdraw and use significantly less water as compared to our electric generation facilities. The Company endeavors to further develop the disclosure of significant water uses, particularly where water targets are set. Reported withdrawals were higher as compared to the previous year but the change is solely due to a better accounting of water data, rather than changes in facility operations. We anticipate that in future years, the total downstream withdrawals will remain relatively the same.
Total discharges – midstream/downstream	0.11	About the same	Dominion Energy's gas infrastructure operations, including gas extraction, processing, distribution, transmission, gathering, by-products extraction, and storage operations; continue to withdraw and use significantly less water as compared to our electric generation facilities. The Company endeavors to further develop the disclosure of significant water uses, particularly where water targets are set. Reported total downstream discharges in 2019 were about the same compared to 2018 because the production output of our midstream/downstream sources remained about the same. We anticipate that in future years, the total downstream discharges will remain relatively the same. We reuse hydrostatic testing water by "cascading" it from test section to test section, when possible. Once complete, the water may be discharged back to a local waterbody, often the same watershed where it was obtained, if the water is verified to be clean and meets the state water quality standards. This may be the case when we are testing completely new pipelines. For older pipelines, the water must be treated to meet water quality standards, so we haul the water away to a treatment facility or other appropriate waste disposal facility.
Total consumption – midstream/downstream	1.89	About the same	Dominion Energy's gas infrastructure operations, including gas extraction, processing, distribution, transmission, gathering, by-products extraction, and storage operations; continue to withdraw and use significantly less water as compared to our electric generation facilities. The Company endeavors to further develop the disclosure of significant water uses, particularly where water targets are set. Reported total downstream consumption was about the same in 2019 compared to 2018 because the production output of our midstream/downstream sources remained about the same. We anticipate that in future years, the total downstream consumption will remain relatively the same.
Total withdrawals – chemicals	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total discharges – chemicals	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total consumption – chemicals	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total withdrawals – other business division	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total discharges – other business division	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total consumption – other business division	<Not Applicable>	<Not Applicable>	<Not Applicable>

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	Less than 1%	About the same	WRI Aqueduct	A water stressed area is one that may be prone to water shortages, and the World Resources Institute (WRI) measures baseline water stress for most land areas across the globe by finding the ratio of total annual water withdrawals to total available annual renewable supply. Dominion Energy's determination that less than 1% of withdrawals come from water-stressed areas is based on the input of latitude/longitude data of our 36 power-generating facilities which use freshwater. The latitude/longitude are entered into the WRI Aqueduct map tool, areas with the resulting output of "high" or "extremely high" baseline water stress as described in the CDP Water guidance document are recorded. Solar facilities were not evaluated, because they require relatively negligible amounts of water. Based on the output, seven traditional power stations are located in "high" or "extremely high" baseline water stress areas. However, only five of those facilities utilize fresh surface water. We further excluded two hydropower facilities from the calculation, because they utilize large Company-owned reservoirs and therefore any water stress is largely mitigated. Due to the merger with SCANA, new power stations which utilize fresh water were added to the Company's power generation fleet in 2019. Using the above-described analysis, we determined that these facilities in South Carolina and Georgia are not located in high water stress areas according to WRIs Aqueduct tool. Therefore, three facilities listed in the WRI Aqueduct output withdraw fresh water relevant to baseline water stress considerations. When these facilities' water withdrawals were translated into actual water withdrawal volume, the percentage (0.04%) was obtained, as compared to total water withdrawals. The change from last year is within 25%, which falls under our established definition of "About the same." In 2010, 2011, 2012, 2014, and 2018 Dominion Energy reported freshwater withdrawals in the range of 0 to 3% from water-stressed areas when performing similar analyses. Because of this long trend of similar results, we assume that the 2018 proportion is about the same as the 2019 result of 0.04%.

W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	8599434	Higher	In 2019, we had a slight increase (~-25%) in freshwater withdrawal volume, falling our definition for "Higher." Our freshwater withdrawal volume increased due to the addition of several new generation facilities in South Carolina from a merger with SCANA. Facilities included in 2018 CDP used about the same amounts of water in 2019, including 6,877,702 MGL in 2018 and 6,861,999 MGL in 2019. South Carolina facilities also had about the same water withdrawals in 2019, compared to 2018. In our Sustainability and Corporate Responsibility Report, we disclose water use trends from 2015-2019 for all power generation facilities in the scope of 2020 CDP. Fresh surface water is relevant to our operations as many of our facilities need large amounts of water to operate, and for many locations, including Chesterfield Power Station and North Anna Power Station, the most readily accessible source of water is fresh surface water (rivers and lakes). We report water usage by percent equity.
Brackish surface water/Seawater	Relevant	2879160	About the same	In 2019, the company experienced a slight decrease (~12%) in brackish/seawater withdrawal volume, falling under our definition for "About the same." Our brackish surface water/seawater withdrawal volume remained about the same because our facilities utilized similar amounts of water during operations and no new facilities withdrawing from brackish sources were added due to the merger with SCANA. Brackish surface water / seawater is relevant to our operations in much the same way as fresh surface water. Namely, many facilities require water to continue operations, and for a number of our facilities such as Millstone Power Station, the most readily accessible source of water is brackish/seawater (such as Long Island Sound).
Groundwater – renewable	Not relevant	<Not Applicable>	<Not Applicable>	We do not characterize the Company groundwater usage as "renewable," rendering renewable groundwater as not relevant to our operations, similar to previous reporting years. All groundwater withdrawals are consumed for power generation or other purposes, thus do not reflect the definition of "renewable."
Groundwater – non-renewable	Relevant	5658	Much higher	In 2019, we experienced an increase (~263%) in groundwater withdrawal volume, falling under our definition of "Much Higher." Our non-renewable groundwater withdrawal volume increased significantly due to newly acquired power stations in South Carolina using larger amounts of groundwater. Groundwater withdrawals from Cope Station and Wateree Station represent the majority of water used from groundwater and the reason for the large increase compared to 2018. Dominion Energy Virginia's groundwater withdrawals actually decreased from 1,559 MGL to 870 MGL in 2019. Groundwater is relevant to our operations because many facilities require water to operate, and many obtain this water through wells and extraction from groundwater. Stations such as Remington, Ladysmith, and Cope obtain the majority of their water from groundwater wells. We anticipate that groundwater withdrawals will decrease in the future due to groundwater regulation in South Carolina.
Produced/Entrained water	Relevant	343	About the same	Produced/entrained water is relevant to our operations, as our natural gas distribution facilities use the water during operations. However, our facilities use a relatively insignificant volume of produced/process water in any of our operations. For 2019, we are reporting a slight increase (~9%) in produced/entrained water volume, falling under our definition of "about the same."
Third party sources	Relevant	16821	Much higher	A number of our stations, including our Brunswick, Hopewell, Columbia Energy Center, and Jasper power stations, obtain the vast majority of their water from third-party sources, primarily municipalities. Third-party water usage volume increased significantly due to the addition of facilities in South Carolina such as Columbia Energy Center and Jasper, which were not part of the 2018 disclosure. These sources are relevant because they provide a consistent water supply which, unless specifically known to be graywater, is of high quality and tested by a third-party to ensure it meets safe drinking water standards. While the South Carolina facilities will be included in our water accounting in this response and going forward, we also examined the year over year homogeneous comparison of third-party water usage by the pre-merger facilities. Excluding South Carolina facilities, our 2018 third-party sources accounted for 5,543 MGL in comparison to 8,352 MGL in 2019.

W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	8726300	Higher	Fresh surface water discharge is relevant to our operations at a number of our facilities, especially those such as Chesterfield Power Station and Urquhart Power Station which are located on rivers, withdraw substantial amounts of surface water, and return the majority of the water to the body of water from which it came through permitted discharges. For CY2019, we experienced an increase (~27%) in fresh surface water discharge. The higher total discharges to fresh surface water are due to the addition of several new generation facilities in South Carolina due to a merger with SCANA. We report water usage by percent equity.
Brackish surface water/seawater	Relevant	2885108	About the same	Just as with fresh surface water, a number of our facilities, including our Millstone and Yorktown power stations, are located on bodies of brackish water / seawater (including Long Island Sound and York River). These facilities return the majority of the brackish water/seawater used in station processes to the water body from which it was withdrawn through permitted discharges. For CY2019, we experienced a very slight decrease (~-12%) in brackish surface water / seawater discharge, falling under our definition of “About the same.” One of the reasons for the decrease in brackish discharges is due to the sale of Manchester Street Power Station in 2018. If water withdrawals and consumption continue to decrease, then it is likely and logical that brackish surface water / seawater discharge will also continue to decrease, as there are few changes at the operational level.
Groundwater	Relevant	206	About the same	Groundwater discharge is relevant to our organizations because a very small amount of groundwater injection to water disposal wells (~206 MGL/year) occurs at our gas extraction facilities. The groundwater discharge volume remained about the same in 2019 compared to 2018 because our production output has remained about the same and we currently manage the water discharged to groundwater injection wells using the same or comparable methods. The Company endeavors to further develop the disclosure of significant water uses, particularly where water targets are set. As such, our reported groundwater discharge volume is about the same compared to the previous year because it falls within our threshold of less than 25% change.
Third-party destinations	Relevant	1000	About the same	Just as with brackish surface water, our facilities require somewhere to discharge their withdrawn water. For some facilities, including our Warren County, Bellemeade, and Brunswick power stations, it is not feasible or desirable to discharge to fresh surface water or brackish surface water. These facilities require somewhere to discharge their water, and so the ability to discharge to these third-party destinations is important as it allows these stations to continue operation. For CY2019, we are reporting water discharges as about the same compared to 2018 because the slight decrease of about 12% (1,141 MGL in 2018 to 1,000 MGL in 2019) falls within our threshold of less than 25% change. Water discharges to third party destinations remained about the same because the production output of these facilities remained about the same.

W-EU1.3

(W-EU1.3) Do you calculate water intensity for your electricity generation activities?

Yes

W-EU1.3a

(W-EU1.3a) Provide the following intensity information associated with your electricity generation activities.

Water intensity value (m3)	Numerator: water aspect	Denominator	Comparison with previous reporting year	Please explain
0.21	Freshwater consumption	MWh	Higher	Our water intensity is 0.21 cubic meters of freshwater consumption per net MWh (i.e. 2.1 e-10 billion liters/net MWh). To fully characterize our water use, track our progress in improving our water use, and align our overall sustainability tracking, we based our water intensity reporting on our percent equity share for power generation facilities. This reflects the fact that we operate some power generation facilities in cooperation with other energy companies and cooperatives. This approach better aligns with our air emissions reporting, because we quantify air emissions on an equity share basis. As renewable energy becomes a larger portion of our power generation fleet, it is becoming more relevant to include water consumption at other facilities such as solar and hydropower to the water intensity calculation. Our freshwater consumption is slightly higher compared to the previous year due to the addition of generating facilities in South Carolina as well as better water accounting practices to remove stormwater discharges from the freshwater consumption calculation. We anticipate that water intensity levels will decrease as we continue to explore low water use technologies and expand our solar generation.
73	Freshwater withdrawals	MWh	About the same	Our water intensity is 73.0 cubic meters of freshwater withdrawn per net MWh (i.e. consumptive plus non-consumptive fresh surface water withdrawn across all power generation). To fully characterize our water use, track our process in improving our water use, and align our overall sustainability tracking, we based our water intensity reporting on our percent equity share for power generation facilities. This reflects the fact that we operate some power generation facilities in cooperation with other energy companies and cooperatives. This approach better aligns with our air emissions reporting. As renewable energy becomes a larger portion of our power generation fleet, it is becoming more relevant to include water consumption at other facilities such as solar and hydropower to the water intensity calculation. In 2019, we reported 81.95 cubic meters of freshwater withdrawn per MWh, which equates to 68.4 cubic meters per MWh when generation from brackish-dependent facilities is included. Our 2019 freshwater withdrawal intensity of 73.0 is slightly higher compared to 68.4 in the previous year due to the addition of generating facilities in South Carolina as well as better water accounting practices to remove stormwater discharges from the freshwater consumption calculation. The year over year change value falls within our definition of “about the same.” We anticipate that water intensity levels will decrease as we continue to explore low water use technologies and expand our solar generation.

W-OG1.3

(W-OG1.3) Do you calculate water intensity for your activities associated with the oil & gas sector?

No, and we have no plans to do so in the next two years

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

Yes, our suppliers

Yes, our customers or other value chain partners

W1.4a

(W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?

Row 1

% of suppliers by number
1-25

% of total procurement spend
Less than 1%

Rationale for this coverage
We request supplier reporting at 4 of our 34 traditional power generation locations to ensure that there is sufficient water quantity of appropriate quality to meet operational and regulatory requirements. This supplier reporting is requested in response to location risks such as the seasonal drought risk at Bear Garden and VCHEC. Additionally, we request reporting for all sources used in our western solar operations (24 sites as of Dec 31, 2019). We ask about the primary origin and source for panel washing water. The question, "Is it groundwater, what aquifer, what water district?" ensures traceability of the water allotment. We incentivize suppliers to respond through contract and professional courtesy. We also engage with our Wexpro Company water suppliers on these requirements. The decision to actively engage and request supplier water data is identified by the business group and individual facilities, as individual facilities most closely monitor their reliance on suppliers.

Impact of the engagement and measures of success
The information obtained from our suppliers incorporates any activities that could impact the water supply. Some information we request from our suppliers include maintenance activities, volumetric discharges, equipment replacements, water quality, and water quantity. Supplier information may be used to plan station operations. For example, for the Wexpro Company, the information obtained from the suppliers is used to plan operations, as water supply from adjacent landowners makes up 100% of water coming into the facilities. Success is measured, generally, as the absence of extreme changes in station operations, the ability for our facilities to operate with no interruptions and based on the suppliers' ability to provide sufficient water quantity and quality consistent with contractual conditions.

Comment

W1.4b

(W1.4b) Provide details of any other water-related supplier engagement activity.

Type of engagement
Onboarding & compliance

Details of engagement
Requirement to adhere to our code of conduct regarding water stewardship and management

% of suppliers by number
76-100

% of total procurement spend
76-100

Rationale for the coverage of your engagement
Any supplier doing business with Dominion Energy is required to review and comply with the Company's Supplier Code of Ethics and Business Conduct (Code). The Code is provided to suppliers during onboarding. It outlines Dominion Energy's minimum expectations of suppliers when working on the Company's behalf, and it is intended to promote lawful and ethical behavior by all in our business dealings. Ethics is a core value at Dominion Energy, and the Company is strongly committed to conducting business in accordance with the highest ethical standards. The Company's suppliers are expected to share our commitment to ethics and compliance. The Code articulates that clean energy, environmental and social responsibility, serving our customers and community, and the employee experience are key pillars of our sustainability focus. Suppliers are expected, at a minimum, to align with Dominion Energy's commitment to sustainability.

Impact of the engagement and measures of success
Dominion Energy provides the Company's Supplier Code of Ethics and Business Conduct to suppliers during onboarding, and the system is designed to engage 100% of suppliers. We consider this method of engagement a success if there is a year over year decrease in supplier-related environmental non-compliance. Through our Environmental Management System (EMS), Dominion Energy tracks environmental non-compliance across the company, including events that occur as a result of contractor and supplier activities. Improved engagement with suppliers in adherence of water stewardship and management contributed to a reduction of contractor-caused water related reportable environmental non-compliance events from 82 (2018) to 39 (2019) according to our EMS environmental incident reporting. This figure does not include certain minor events that are not considered to be a risk to human health and the environment.

Comment
The Code states that environmental protection is the responsibility of Dominion Energy and our suppliers. We will fully exercise our contractual remedies to ensure suppliers' compliance obligations and will hold our suppliers responsible for the actions and omissions of their subcontractors. Suppliers must meet our environmental commitments (for example, follow Stormwater Pollution Prevention Plans; complete timely inspections and promptly submit reports; rapidly make repairs).

Type of engagement
Onboarding & compliance

Details of engagement
Requirement to adhere to our code of conduct regarding water stewardship and management

% of suppliers by number
Less than 1%

% of total procurement spend
Less than 1%

Rationale for the coverage of your engagement
Early each year, Dominion Energy Wexpro Departments (Drilling, Completion, and Operations) compile their water use estimates. Our regulatory Affairs Department then engages with applicable water supply sources to ensure that adequate water will be available for our Wexpro Operations, which represents less than 1% of our suppliers and less than 1% of our procurement spend. Our Wexpro Company uses water for the purposes of drilling, completion, workover, field operations, and reclamation efforts.

Water for these operations is supplied by private landowners, municipal sources, and Wexpro facilities. Except for the Canyon Creek facility, all other water used in field offices is purchased through municipal sources. We incentivize water suppliers by awarding contracts to those who can supply adequate water for our Wexpro Operations.

Impact of the engagement and measures of success
Through our engagement strategy with our Wexpro water suppliers, we are ensuring that adequate water will be available for our Wexpro operations. Furthermore, we are encouraging outreach with our suppliers. Success is measured and determined based on the ability for our Wexpro facilities to continue operations (e.g. exploration and production) with no interruptions. In the reporting year, Wexpro facilities continued to operate without interruptions.

Comment

Type of engagement
Other

Details of engagement
Other, please specify (Information collection (understanding supplier behavior))

% of suppliers by number
1-25

% of total procurement spend
26-50

Rationale for the coverage of your engagement
We work with the Electric Utility Industry Sustainable Supply Chain Alliance (EUISSCA) to engage our vendors and 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. In 2019, our approach was more targeted, and we focused on requesting responses from key suppliers who provide construction and environmental services. We requested 60 of our suppliers, representing 29% of our total procurement spend, to respond to the EUISSCA survey.

Impact of the engagement and measures of success
The EUISSCA annual survey requests for our vendors and suppliers to disclose information on their water-related best practices, such as water conservation measures implemented through operations or through employee training. We use the data gathered by EUISSCA to benchmark our environmental performance and progress against industry peers. In 2019, we had a 53% survey response rate, with 32 supplier responders representing 17% 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. From 2018 to 2019 the survey response rate increased from 26% to 53% and the number of responders increased from 23 to 32.

Comment

W1.4c

(W1.4c) What is your organization's rationale and strategy for prioritizing engagements with customers or other partners in its value chain?

At all levels of leadership across the Company's value chain, we understand the importance of an enhanced relationship between a utility and the communities it serves, employees it entrusts, partners it engages with, regulatory bodies it informs and complies with, and investors it collaborates with. We make it a priority to identify our primary stakeholders and their interests and material issues, and we prioritize engagements that can deliver on these interests, needs and demands. For example, we recognize that our communities want us to be good partners in reducing the environmental effects of our operations and work with community leaders and local stakeholders extensively on water-related engagements, including:

1. Holding public meetings and engaging landowners during new infrastructure project development;

2. Communicating with our employees on building construction/retrofit policies and water use;

3. Providing grants for community water-related projects; and

4. Enhancing outreach to environmental justice communities identified during project analysis.

Through the Dominion Energy Charitable Foundation, we provided over $1.6 million in environmental stewardship and education grants to community organizations, with $474,000 of these grants being water-related. For example, we provided $25,000 to the James River Outdoor Coalition's (JROC's) Huguenot Flatwater Access Ramp project (Huguenot Project) in Richmond, Virginia. Our Watershed Mini Grants Program with the Western Land Conservancy in Ohio and the Western Pennsylvania Conservancy also assisted watershed organizations. More than $642,000 has been awarded to 38 different watershed groups in Ohio and Pennsylvania since each program's inception.

We prioritize water-based grants that demonstrate sustainability and lasting community impact. Engagement success can be measured by completion of the grantees' objectives. For example, JROC has raised about 10% of the funds to complete the Huguenot Project.

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?
Yes

(W2.1a) Describe the water-related detrimental impacts experienced by your organization, your response, and the total financial impact.

Country/Area & River basin

United States of America	Santee River

Type of impact driver & Primary impact driver

Physical	Other, please specify (Legacy waste)

Primary impact
Increased operating costs

Description of impact
In June 2010, the South Carolina Department of Health & Environmental Control (SCDHEC) became aware of a tar-like material (TLM) in the Congaree River south of the Gervais Street Bridge in downtown Columbia, South Carolina. Lab testing showed that the TLM was consistent with coal tar created by manufactured gas plants that operated throughout Columbia about a century ago, some of which were operated by organizations that would eventually become part of South Carolina Electric & Gas (SCE&G), now Dominion Energy South Carolina a wholly owned subsidiary of Dominion Energy. There is no evidence of aquatic life impacts at this site as measured by the SCDHEC, but there is potential based on similar sites in the U.S. However, removal of certain affected sediment is being pursued, and Dominion Energy will incur costs associated with sediment removal. Previous estimates of clean-up costs range from $9 to $18 million. Because Dominion Energy strives to continually improve environmental performance, the Congaree River site is disclosed here as a substantive impact.

Primary response
Support river basin restoration

Total financial impact
18000000

Description of response
SCDHEC, along with other major stakeholders, requested that SCE&G provide a more detailed map of the TLM distribution. In November 2018, the stakeholders used that detailed map to identify a preferred path forward consisting of the physical removal of sediment and TLM from two separate areas. We refer to the revised approach as the stakeholder-developed Modified Removal Action (MRA). The stakeholder-developed MRA targets the areas where TLM is most prevalent and poses the greatest risk to human exposure. Consequently, the effort contemplates removal from areas with more concentrated amounts of TLM, or where thicker deposits of TLM are shown to exist. This approach also acknowledges that minor amounts of TLM will remain in the riverbed but are situated in areas that pose less risk to human exposure. Because the project is being conducted under SCDHEC's Responsible Party Voluntary Cleanup Contract, stakeholder involvement and public participation will occur through the entire process. It is also the mutual desire among stakeholders that this project should be accomplished by the most expeditious route possible in working with the U.S. Army Corps of Engineers. The total financial impact of $18 million reflects the cost to remove and transport the TLM by constructing a temporary dam to dewater the affected area, excavating the TLM and sediments, transporting the TLM to a licensed off-site facility for disposal, and completing ecological restoration upon completion.

Country/Area & River basin

United States of America	Other, please specify (Potomac and James River Basins)

Type of impact driver & Primary impact driver

Physical	Other, please specify (Pollution incident)

Primary impact
Increased operating costs

Description of impact
Dominion Energy Virginia entered into a Consent Decree with U.S. Environmental Protection Agency (EPA) and Virginia Department of Environmental Quality (DEQ) to resolve previously reported unpermitted discharges, areas of groundwater seepage, and other alleged Clean Water Act (CWA) violations at various facilities (e.g. Chesterfield, Possum Point, and others) in Virginia and West Virginia. Dominion Energy is 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. Under the Consent Decree, Dominion Energy will pay a civil penalty and hire an EPA-approved third party to audit its environmental management system and conduct CWA compliance audits at a number of facilities. Our goal is to comply with applicable laws and regulations, and we measure the success of our management procedures by striving for a 100% compliance rate. We characterize the impact of the Consent Decree as substantive due to anticipated operating costs and the importance we attribute to any alleged violation. We define a substantive impact to be any change in the determination of investors in buying, holding, and selling Dominion Energy securities.

Primary response
Greater due diligence

Total financial impact
2100000

Description of response
Regarding the groundwater seepage, the Company investigated and determined that the groundwater seepage was originating from an existing coal pile (Eastern Shoreline Seeps). Dominion Energy took actions, with DEQ's direction and approval, to characterize and mitigate the Eastern Shoreline Seeps, including installation of a groundwater interceptor trench and collection system. The Upper Ash Pond is subject to closure by removal pursuant to a DEQ solid waste permit, which would include any required groundwater corrective action. Regarding the original EPA information requests, the Company provided numerous responsive documents to the requests and had several meetings with the agencies. Ultimately, all parties reached a resolution to the alleged violations, which is embodied in a Consent Decree. Under the Consent Decree, Dominion Energy will hire an EPA-approved third party to audit its environmental management system and conduct Clean Water Act compliance audits at a number of facilities In addition, Dominion Energy will pay a $1.4 million civil penalty to the agencies. The Company expects to spend $500,000 to $700,000 on the additional third-party audits and operational activities. The sum of these costs results in an upper-range estimate of $2.1 million.

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

Yes, enforcement orders or other penalties

W2.2b

(W2.2b) Provide details for all significant fines, enforcement orders and/or other penalties for water-related regulatory violations in the reporting year, and your plans for resolving them.

Type of penalty

Enforcement order

Financial impact

10000

Country/Area & River basin

United States of America	Other, please specify (Saluda River Basin)

Type of incident

Other non-compliance with permits, standards, or regulations

Description of penalty, incident, regulatory violation, significance, and resolution

In May 2019, Dominion Energy South Carolina (DESC) received a resolution agreement from the U.S. Army Corps of Engineers for a self-reported violation concerning forested wetland clearing and grading along the Project Jushi Gas Main Transmission Line in Columbia, South Carolina. The unauthorized work involved permanent conversion of forested wetlands, as well as inadequate notification for excavation and backfill in wetlands. In total, 0.368 acres of forested wetland were permanently cleared and 0.034 acres of wetland were temporary excavated and backfilled without notification. DESC agreed to conduct one internal training session and donated $10,000 to Clemson University Extension Service's "4H2O" educational program. DESC has also implemented Dominion Energy's Environmental Management System in order to reduce environmental non-compliance and improve environmental performance through metric tracking, goal setting, root cause analyses, and corrective actions.

Type of penalty

Enforcement order

Financial impact

52520

Country/Area & River basin

United States of America	James River

Type of incident

Spillage, leakage or discharge of potential water pollutant

Description of penalty, incident, regulatory violation, significance, and resolution

In 2017 and 2018, Dominion Energy received notices of violation from Virginia Department of Environmental Quality (DEQ) for impacts to surface waters as a result of sediment discharges and for subsequent erosion and sediment control and stormwater deficiencies cited in an inspection. The violations occurred at the Scott II Solar project site in Powhatan, Virginia. Two consent orders were executed in 2019 with civil penalties of $37,070 and $15,450. Dominion Energy began corrective actions including sediment removal, reseeding, and silt fence repair at no cost to the Company. The builder was obligated under contract to meet stabilization requirements and therefore restored the site to the appropriate stormwater design specifications. Dominion Energy has worked to prevent a reoccurrence of these events through corporate-wide improvement by providing revised staff and contractor training and by developing a supplier evaluation system to track contractor performance.

W3. Procedures

W-EU3.1

(W-EU3.1) How does your organization identify and classify potential water pollutants associated with your business activities in the electric utilities sector that could have a detrimental impact on water ecosystems or human health?

Our environmental compliance activities include measures that support our efforts in identifying and classifying all major water pollutants that are related to our operational activities across our value chain and that may potentially have a negative impact on water ecosystems or human health. By complying with applicable federal and state regulations, we are aligning our systems and efforts with an established national standard and carrying out a commitment to our customers and communities to comply with established standards.

As part of our environmental management system, we create environmental compliance plans which list all environmental compliance requirements including compliance with water standards and the compliance methodologies that are in place for such requirements. We perform self-assessments of our facilities and projects on a routine basis to confirm continued compliance with 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 quickly notify groups within the Company who have similar processes when a gap is identified. This has had a profound impact on our ability to react quickly and learn from each other. We track reportable environmental events (REEs) and other minor deviations. A REE is a permit deviation, regulatory deviation, environmental release or other environmental event that was under operational control of Dominion Energy or a Company contractor and must be reported to a regulatory or land management agency. We perform root cause analyses to prevent REEs from recurring.

Rigorous protection methods, following established permit and mitigation standards, are employed when constructing infrastructure across or adjacent to waterways. We employ qualified environmental inspectors on all large and many small projects. Rigorous post-construction re-vegetation provides immediate and ongoing protection of surrounding waterways and habitat.

The Company maintains current National Pollutant Discharge Elimination System (NPDES) permits that ensure discharges at all of our stations comply with applicable state water quality standards. As such, through our compliance with the NPDES, our discharge of pollutants is governed by a clear and well-established standard. During the NPDES permitting process, the state permitting agency and the Company work together to determine if any water quality impairments occur in the receiving waters. If a water quality impairment exists, the discharge may be monitored more closely, or additional treatment may be needed to protect the designated uses, such as drinking, fishing, and swimming, of the receiving waters. This discharge water quality monitoring data from the current permit and any additional sample results for parameters listed in the Code of Federal Regulations at 40 CFR 401.15 may be used to ensure that subsequent permits appropriately limit the discharge of pollutants.

An example of monitoring to protect human health and ensure that receiving waters are fishable occurs at the Mt. Storm Power Station. The station monitors discharge of process water for metals such as lead, copper, silver, arsenic, and mercury using sensitive detection methods. In addition, stormwater leaving the station is monitored for a suite of parameters such as total suspended solids, total recoverable aluminum, and pH.

At our Chesterfield Power Station (CPS), a permanent ash water treatment system is under construction for water that separates from coal ash during the excavation from dry treatment basins to a lined landfill or reclamation. Dry management of ash will result in very low levels of moisture in the ash prior to disposal. However, during operations, precipitation could contact the ash and infiltrate the landfill. To capture this liquid, a leachate collection system has been constructed on top of the liner system. This collection system allows any liquid draining through the ash to be collected and properly treated in accordance the NPDES permit. Compliance with the Effluent Limitation Guidelines (ELG) requirements for the Reymet Road landfill at CPS is above and beyond what the regulations require because the ELG rules for leachate do not apply to existing sources of generation.

In 2019, legislation was passed in Virginia requiring that CCR ponds at specific Dominion Energy power stations including Chesterfield, Possum Point, Chesapeake, and Bremo and other ash facilities at Chesapeake Energy Center, be closed through a combination of excavating the CCR to lined landfills and recycling for beneficial use.

W-EU3.1a

(W-EU3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants associated with your activities in the electric utilities sector on water ecosystems or human health.

Potential water pollutant	Description of water pollutant and potential impacts	Management procedures	Please explain

Potential water pollutant	Description of water pollutant and potential impacts	Management procedures	Please explain
Thermal pollution	Cooling water from electric power generating stations has the potential to elevate temperatures in streams and lakes. Depending on waterbody characteristics and aquatic life, the acceptable temperature increase may vary. For example, a trout stream would be more sensitive to temperature change than a larger river. In some waterbodies the impact is not significant, and a 3-degree Celsius change in temperature may be acceptable. In trout streams, the temperature must stay cool for the trout to thrive and only a one-degree Celsius change is acceptable.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages	Our commitment is always to comply with laws and regulations. Dominion Energy has an environmental management system (EMS), which includes environmental compliance plans that outline compliance methods for all regulatory and permit requirements, including monitoring temperature and operating parameters, biological studies, structural best management practices (BMPs), and written procedures for consistency. Additionally, self-assessments, internal auditing, and staff training are used to support and improve compliance activities. Also, the National Pollutant Discharge Elimination System (NPDES) permit process and permit-required monitoring are used to ensure discharges comply with state water quality standards and protect designated uses such as fishing, swimming, and a diversity of aquatic fauna. To meet these requirements, the company monitors water quality and implements operational and structural BMPs when needed. For example, at our Gordonsville power station, the temperature of the discharge from the water treatment pond approached acceptable limits during the hottest summer months. The station changed the liner of the pond from black to white to deflect solar radiation, and discharge temperatures are consistently lower. Another example is the Mt. Storm Power Station, where we have put operational practices and equipment in place to manage the temperature of the spillway discharge into the stream. In line with our commitment to comply with applicable laws and regulations, we measure the success of our management procedures by striving for a 100% compliance rate.
Coal combustion residuals	Dominion Energy historically produced and continues to produce coal ash, or coal combustion residuals (CCRs), as a by-product of coal-fired generation operations. Ash is stored and managed in impoundments (ash ponds) and landfills located at 11 different facilities. In addition, Dominion Energy South Carolina (DESC) has 3 facilities with CCR ponds and CCR landfills subject to coal ash. We started the process of closing ash ponds where ash has already been or will be removed from the ponds in accordance with all applicable federal, state, and local environmental regulations and necessary permits. Groundwater monitoring and reporting will continue even after the ponds are closed. CCR composition varies widely depending on the coal type and air pollution control equipment. EPA noted in 2010 that the constituents of most environmental concern in CCR are metals. While metals in high concentrations may affect growth in aquatic organisms, EPA notes that CCR can be used beneficially to adjust the pH of soils to promote plant growth. Ash pond closings are managed to avoid impacts to water quality through the discharge of pollutants or from erosion. First, ponds are “dewatered,” which involves careful treatment onsite using a multistage process to meet or go beyond stringent, government-mandated levels and testing of the water before it is released. We work with firms that specialize in onsite wastewater treatment. . The coal ash itself is not released into nearby waterways, just the water that has been put through a rigorous treatment process incorporating state-of-the-art science. In 2019, legislation was passed in Virginia requiring any ash pond located at our Bremo, Chesapeake, Chesterfield, and Possum Point power stations that stop accepting CCR prior to July 2019 be closed through a combination of excavating the CCR to lined landfills and recycling for beneficial use. We are currently planning implementation of this new requirement. In South Carolina, ash ponds at Cope and Williams stations are closed. In December of 2019, DESC completed closure and removal of more than 3.5 million dry tons of coal ash from a 100-acre wet storage pond at the Wateree Station. Urquhart Station’s active ash ponds have been taken out of service and mitigation measures will be implemented to comply with applicable South Carolina drinking water standards. The Canadys Station was a coal-fired plant and decommissioned in 2017. CCR is being beneficially reused from the site.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages Community/stakeholder engagement	We are committed to closing our ash ponds safely and have an ongoing responsibility to monitor the sites. At Chesterfield Power Station, developments are underway (a permanent ash contact water treatment system) as we proceed towards closure of the ash ponds, which are no longer receiving ash. We will meet or exceed all regulations and inspections to ensure protection of human health and the environment. We have worked with local communities and organizations to provide information about the planned closures and provide updates on our plans including meetings and station tours. We follow regulatory requirements from state environmental quality agencies, the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, local jurisdictions, and other state agencies regarding land disturbance, environmental controls, groundwater protection, and other associated parts of the project. This includes groundwater monitoring and controls. Consistent with our routine operations, we implement our Environmental Management System (EMS) for coal ash pond closings, which includes environmental compliance plans, monitoring applicable parameters, written procedures for consistency, self-assessments, internal auditing, staff training, and structural best management practices. We go above and beyond the EPA’s ground water monitoring requirements, and we will continue monitoring even after the ponds are closed. The Company is committed to taking corrective actions to remediate any groundwater impacts that we find. In line with our commitment to comply with applicable laws and regulations, we measure the success of our management procedures by striving for a 100% compliance rate. Pursuant to legislation passed by the 2020 Virginia General Assembly (HB1641 and HB1642), the Company is identifying drinking water wells within 1.5 miles of certain coal ash ponds and notifying landowners via mail and a public notice of the survey. The next phase will be to conduct well water testing and send the results to the Virginia Department of Environmental Quality and Virginia Department of Health. Should any testing indicate a water supply well has been impacted by the Company’s operations, we would immediately provide an alternative water supply.
Hydrocarbons	For our operations, hydrocarbons involved are generally oil and grease, which can adversely impact aquatic ecosystems. Our strategy for hydrocarbon pollutant minimization involves limits set in our National Pollutant Discharge Elimination System (NPDES) permit process for discharges as well as Spill Prevention, Control, and Countermeasure (SPCC) requirements for storage tanks. We employ operational procedures to limit discharge of oil and grease, secondary containment for above ground storage tanks, and some treatment capability in our wastewater systems. Implementation of our Environmental Management System (EMS) supports hydrocarbon pollutant minimization through environmental compliance plans, monitoring applicable parameters, biological studies, written procedures for consistency, self-assessments, internal auditing, staff training, and structural best management practices. In the unlikely event that hydrocarbons levels exceed water quality standards, EPA reports potential disruption of cellular and physiological processes on aquatic organisms such as feeding and reproduction processes, but do not typically lead to immediate mortality.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages	Our commitment is always to comply with laws and regulations. Our strategy for hydrocarbon pollutant minimization involves limits set in our NPDES permit process for discharges as well as SPCC requirements for storage tanks. We employ operational procedures to limit discharge of oil and grease, secondary containment for above ground storage tanks, and some treatment capability in our wastewater systems. Implementation of our EMS supports hydrocarbon pollutant minimization through environmental compliance plans, monitoring applicable parameters, biological studies, written procedures for consistency, self-assessments, internal auditing, staff training, and structural best management practices. In line with our commitment to comply with applicable laws and regulations, we measure the success of our management procedures by striving for a 100% compliance rate.

Potential water pollutant	Description of water pollutant and potential impacts	Management procedures	Please explain
Radiation	A radiological release from our nuclear plants could potentially impact aquatic ecosystems and human health. According to the U.S. Nuclear Regulatory Commission (NRC), natural and man-made radiation may come from different sources, but both affect organisms in the same way. Natural radiation that is always present is known as "background" radiation. Background levels can vary greatly from one location to the next. For low levels of exposure, the biological effects are so small they may not be detected. The organism's immune system is able to repair damage from radiation, chemicals, and other hazards. Living cells exposed to radiation could: (1) repair themselves, leaving no damage; (2) die and be replaced, much like millions of body cells do every day; or (3) incorrectly repair themselves, resulting in a biophysical change. NRC regulations assume any amount of radiation may pose some risk and strictly limit the amount of radiation that can be emitted by a nuclear facility, such as a nuclear power plant.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages Emergency preparedness	Our nuclear power plants are operated in an environmentally sensitive manner, consistent with the Dominion Energy Corporate Environmental Policy Statement and in adherence to stringent regulations of the NRC. The NRC has strict rules to keep radiation levels in the environment very low and protect public health and safety. When it reviews a reactor license application, the NRC analyzes the possible impacts to people, animals, plants, and sea life. This analysis is part of an Environmental Impact Statement the NRC publishes that also addresses ways to minimize the impacts. The NRC requires nuclear power plants to be designed in a way that keeps radioactive material releases as low as reasonably achievable. To comply with NRC rules, we must also: 1) comply with radiation dose limits for the public, 2) monitor both what is released and the environment around the plant, and 3) report monitoring results annually to the NRC. These reports are posted on the NRC website. For example, at our North Anna Nuclear Power Station we conduct quarterly fish sampling in Lake Anna to characterize the diverse fish population in the lake, as well as periodic radiological monitoring by collecting fish tissue. Adherence to the Station and Corporate environmental management standards, as well as NRC regulations, ensures that operational and support activities minimize and measure the environmental effect of Dominion Energy nuclear operations. Implementation of our Environmental Management System (EMS) supports radiation minimization through environmental compliance plans, monitoring applicable parameters, biological studies, written procedures for consistency, self-assessments, internal auditing, staff training, and structural best management practices. In line with our commitment to comply with applicable laws and regulations, we measure the success of our management procedures by striving for a 100% compliance rate.
Other, please specify (Total Suspended Solids)	Solids, characterized as the water quality parameter Total Suspended Solids (TSS), are one of the most common contaminants found in storm water. They originate from many sources, including, but not limited to, erosion at construction sites. Solids may contribute to water quality, habitat, and aesthetic problems in waterways. Elevated levels of solids increase turbidity, reduce the penetration of light at depth within the water column, and limit the growth of desirable aquatic plants. Solids that settle out as bottom deposits contribute to sedimentation and can alter and eventually destroy habitat for fish and bottom-dwelling organisms. Solids also provide a medium for the accumulation, transport, and storage of other pollutants, including nutrients and metals.	Measures to prevent spillage, leaching, and leakages	The Company uses an Environmental Management System (EMS), including employee education, regulatory compliance tracking, self-assessments, and best management practices to ensure stormwater and related TSS are managed properly and in a manner consistent with regulatory requirements. We comply with TSS limits in our permits by managing our water discharges, monitoring them, and employing structural and procedural best practices to address any potential fluctuations. The Company establishes and follows standards and specifications to minimize erosion at each relevant project area, and therefore employs measures such as silt fence and stormwater management structures in areas erosion may occur. We have a goal of 100% compliance with federal, state, and local regulations and endeavor to prevent erosion and sedimentation. The success of our erosion and sediment control practices is measured through compliance tracking. We track reportable environmental events (REEs) and will work to reduce REEs in the future.

W-OG3.1

(W-OG3.1) How does your organization identify and classify potential water pollutants associated with its activities in the oil & gas sector that may have a detrimental impact on water ecosystems or human health?

As part of our environmental management system (EMS), we create environmental compliance plans listing all environmental compliance requirements, including compliance with water standards and their associated compliance methodologies. These environmental compliance requirements include measures that support our efforts in identifying and classifying all major water pollutants related to our operational activities across our value chain that may potentially have a negative impact on water ecosystems or human health. By complying with applicable federal and state regulations, we are aligning our systems and efforts with an established national standard.

We perform self-assessments of our facilities and projects on a routine basis to confirm continued compliance with state and federal regulations. In addition to annual monitoring at key locations, we perform detailed corrosion surveys for an average of 1,000 miles of transmission pipeline each year to confirm that these protection systems are functioning effectively. Rigorous protection methods are employed when constructing infrastructure across or adjacent to waterways. We employ qualified environmental inspectors on all large and many small projects. In addition, the construction supervisor provides additional focus to understanding and maintaining strong erosion and sedimentation controls and other mitigation measures to reduce impacts of construction. Rigorous post-construction re-vegetation provides immediate and ongoing protection of surrounding waterways and habitat. Horizontal directional drills (HDDs) may be employed in specific waterbody crossings as well as in certain other road or trail crossings to protect waterways, both directly and indirectly. Specific methods are used to prevent inadvertent returns, with immediate response plans in place to mitigate impacts if an unfortunate event occurs.

We track reportable environmental events (REEs) and other minor deviations. We perform root cause analyses 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 a Company contractor and must be reported to a regulatory or land management agency. 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.

The Company maintains current National Pollutant Discharge Elimination System (NPDES) permits that ensure discharges comply with applicable state water quality standards. As such, through our commitment and compliance with the NPDES, our discharge of pollutants is governed by a clear and well-established standard. For example, we are committed to managing pollutants, such as total suspended solids (TSS), from any potential sources. Solids may contribute to water quality, habitat, and aesthetic problems in waterways. Elevated levels of solids increase turbidity, reduce the penetration of light at depth within the water column, and limit the growth of desirable aquatic plants. Solids that settle out as bottom deposits contribute to sedimentation and can alter and eventually degrade habitat for fish and bottom-dwelling organisms. Through our investment in compliance with these national standards, we are committing to limits on the amount of pollutants that can be discharged. The Company implements practices to protect streams and wetlands such as obtaining permits, providing mitigation, and controlling erosion of sediment through innovative and traditional practices.

As detailed in our Supplier Code of Ethics and Business Conduct, our suppliers are expected to share our commitment to ethics and compliance, which includes environmental compliance and stewardship. Suppliers are expected to conduct their activities in compliance with applicable laws and regulations, and in accordance with our policies, procedures, and work practices. For example, our contractors are expected to adhere to specific policies and procedures related to water-related impacts to natural resources, such as applicable Stormwater Pollution Prevention Plans.

To foster research and development, as well as shared knowledge within the pipeline industry, the Interstate Natural Gas Association of America (INGAA) Foundation hosted a Steep Slope Construction Workshop in November of 2019 and produced a report summarizing the methods, case studies, and recommendations presented at the workshop for energy companies to utilize and help operate efficiently and safely in areas with steep rugged terrain. Dominion Energy serves on the steering committee for the INGAA foundation and co-sponsored the project.

W-OG3.1a

(W-OG3.1a) For each business division of your organization, describe how your organization minimizes the adverse impacts on water ecosystems or human health of potential water pollutants associated with your oil & gas sector activities.

Potential water pollutant	Business division	Description of water pollutant and potential impacts	Management procedures	Please explain
Hydrocarbons	Upstream Midstream/Downstream	Hydrocarbons are organic compounds, such as benzene and propane, that are found in hot process oil, lube oil, and natural gas liquids stored and handled at Dominion Energy's facilities. The potential impact from a release of these substances may vary based on the volume and magnitude of the leakage. According to the World Health Organization, due to volatilization, biodegradation, and dissolution only a small proportion of hydrocarbon constituents will be significantly soluble in water. Worst case leakage scenarios could cause adverse impacts on water ecosystems and human health, such as localized contamination of groundwater resources, leading to potential loss of biodiversity or need to remediate drinking water. The Company employs structural and procedural best practices pertaining to discharges and follows Spill Prevention, Control, and Countermeasure (SPCC) requirements for storage tanks. We employ operational procedures to limit discharge of oil and grease, such as secondary containment for above ground storage tanks.	Measures to prevent spillage, leaching and leakages Emergency preparedness	The Company establishes and follows a comprehensive groundwater protection plan at each relevant facility to ensure that spillage, leaching, and leakages of stored hydrocarbons would not occur. Our comprehensive groundwater protection plans employ measures such as installation and maintenance of impermeable secondary containment structures in areas where hydrocarbons are stored. The success of these plans and measures set in place are based on the plan's ability to prevent and mitigate spillage, leaching, and leakages from occurring. For example, Dominion Energy's more than 2,300 storage wells and reservoirs are designed to withstand fluctuating pressures associated with the injection and withdrawal of natural gas, season after season. Through regular inspections, we monitor the condition of the lining or casing that contains the storage pressure within the wellbores. Company wells contain up to three concentric linings. On many, the innermost casing is surrounded with cement from deep in the wellbore to the surface of the ground to provide additional leak prevention. Dominion Energy has been using electronic logging tools to inspect our storage wells since 1973, years before that technique was required by the Pipeline and Hazardous Materials Safety Administration (PHMSA). The process involves lowering a high-resolution electronic device into the well to take electromagnetic readings over its entire length. The readings provide important information regarding the condition of the well — information that is then used to determine what, if any, remedial work will be performed. We perform well-casing integrity inspections for internal and external corrosion. Through other regular inspections we verify well status and pressure, and look for signs of atmospheric corrosion, venting gas, or leaks. These inspections are complemented by remote monitoring and monitoring of third-party drilling activities in and around our storage pools. And in the unlikely event of a major leak, the company has site-specific emergency plans for each storage field.
Other, please specify (Waste Streams)	Upstream Midstream/Downstream	Various waste streams are generated during the maintenance and operation of natural gas infrastructure, including transmission and distribution pipelines, and extraction and compression equipment. Waste streams are accumulated in designated locations. At lower concentrations, components of the waste stream do not affect aquatic flora and fauna to a great degree. However, these waste streams have the potential to cause adverse impacts on water ecosystems and human health at higher concentrations. Impacts such as inhibition of growth, photosynthesis and reproduction, and behavioral effects may result due to chemical composition (salinity, hazardous waste characteristics, presence of compounds such as arsenic, benzene or polychlorinated biphenyls or PCBs) and physical characteristics (volatility, oily nature).	Measures to prevent spillage, leaching and leakages	The Company uses an environmental management system (EMS), including employee education, regulatory compliance tracking, self-assessments, and best management practices to ensure hazardous waste is managed properly and in a manner consistent with regulatory requirements. The Company establishes and follows solid waste and hazardous waste contingency plans at each relevant facility, and therefore employs measures such as installation and maintenance of impermeable secondary containment structures in areas where hazardous waste streams are stored. The success of our hazardous waste management procedures is determined upon our ability to meet a 100% compliance rate to federal, state, and local regulations and our ability to prevent spillage, leaching and leakages. Where feasible, we go above and beyond standard requirements to support our goal of 100% compliance.
Other, please specify (Total suspended solids)	Upstream Midstream/Downstream	Solids, characterized as the water quality parameter Total Suspended Solids (TSS), are one of the most common contaminants found in storm water. They originate from many sources, including but not limited to erosion at construction sites. Solids may contribute to water quality, habitat and aesthetic problems in waterways. Elevated levels of solids increase turbidity, reduce the penetration of light at depth within the water column, and limit the growth of desirable aquatic plants. Solids that settle out as bottom deposits contribute to sedimentation and can alter and eventually degrade habitat for fish and bottom-dwelling organisms. Solids also provide a medium for the accumulation, transport and storage of other pollutants including nutrients and metals.	Measures to prevent spillage, leaching and leakages	The Company uses an environmental management system (EMS), including employee education, regulatory compliance tracking, self-assessments, and best management practices to ensure stormwater and related TSS are managed properly and in a manner consistent with regulatory requirements. The Company establishes and follows standards and specification to minimize erosion at each relevant project area, and therefore employs measures such as silt fences and stormwater management structures in areas erosion may occur. The success of our erosion and sediment control procedures is determined by our ability to meet a 100% compliance rate to federal, state, and local regulations and our ability to prevent spillage, leaching, and leakages. Consistent with regulatory requirements and the many commitments made by members of the Interstate Natural Gas Association of America in the "Commitments to Responsible Construction," Dominion Energy restores and revegetates pipeline rights of way and construction work areas. We work with landowners and resource agencies to preserve water and land resources and minimize long-term effects resulting from construction.

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Direct operations

Coverage
Full

Risk assessment procedure
Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment
Annually

How far into the future are risks considered?
More than 6 years

Type of tools and methods used
Tools on the market
Enterprise Risk Management

Tools and methods used
WRI Aqueduct
Other, please specify (Probabilistic modelling tools; COSO ERM Framework and Internal Company Methods)

Comment
The Company conducts a comprehensive, company-wide (enterprise) risk assessment process utilizing the COSO ERM Framework which is an industry accepted approach and incorporating direct operations only. We employ probabilistic modeling tools to compare alternative plans for the Integrated Resource Plans. The risks that are assessed include, but are not limited to, financial, operating, compliance, environmental, legal, regulatory, strategic, and reputation risks, as well as emerging risks. Water-related risks, including water quality and water quantity may be evaluated in connection with these risk assessments. The Company also assesses water-related risks at the facility-level during siting or expansion of infrastructure and facilities and during water permit compliance monitoring and reissuances. The Company uses a wide range of tools such as resource mapping tools and models, which are often provided by environmental resource agencies. Two examples are the US Fish and Wildlife Service's Wetlands Mapper and the Pennsylvania Natural Diversity Inventory. The Water Resources Institute (WRI) Aqueduct Water Atlas is used to assess baseline water stress levels or overall water risk of power generation and oil & gas facilities located in potentially water stressed areas. The WRI results are used to guide the annual water risk assessment conducted for sustainability disclosures.

Supply chain

Coverage
Partial

Risk assessment procedure
Water risks are assessed as a standalone issue

Frequency of assessment
Annually

How far into the future are risks considered?
More than 6 years

Type of tools and methods used
Other

Tools and methods used
Internal company methods
National-specific tools or standards

Comment
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 use the data gathered by EUISSCA to benchmark our environmental performance and progress against industry peers. Additionally, our supply chain risks are evaluated for power generation stations, gas extraction facilities, and certain infrastructure projects periodically such as during the annual budgeting process, when renegotiating contractual arrangements with water suppliers (every 1+ years), when water withdrawal permits are under renewal with the state agency (generally every 5-15 years), and/or when supporting state-wide water supply planning. Dominion Energy participates in state-wide water supply planning processes, which evaluate water supply needs and risks of all water users, including the Company's direct use and third-party suppliers' water use, for 30-50 years in the future. For example, a Company Environmental Services technical expert participates in most of the South Carolina State Water Planning Process Advisory (known as PPAC) meetings. Through supplier engagement, industry groups and regulatory agency engagement, we monitor and address supply risks at the company, aquifer or watershed scale.

Other stages of the value chain

Coverage
Partial

Risk assessment procedure
Water risks are assessed as a standalone issue

Frequency of assessment
Not defined

How far into the future are risks considered?
Up to 1 year

Type of tools and methods used
Other

Tools and methods used
Internal company methods

Comment
A 2017 materiality analysis is helping to shape our sustainability strategy by identifying issues currently important to our investors, employees, customers, and communities. It was conducted using an internal company method. Interviews and documents that provided stakeholder perspectives. External sustainability experts worked with an internal team of stakeholders to designate material issues. Water consumption and quality were identified as material issues during this process.

W3.3b

(W3.3b) Which of the following contextual issues are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	Dominion Energy considers water availability to be a highly relevant contextual issue across our direct operations because without water availability at a basin and catchment level several of our power stations would not be able to run at full capacity. For relevant facilities, drought risks are assessed as needed at the facility level at least as frequently as quarterly to annually, but more frequently during times of active construction. Assessments occur during regulatory water permit modification or renewal planning periods, or as forecasts advise, and during our 2019 Water Risk Assessment (WRA). 144 power generation and gas infrastructure sites were evaluated in the WRA. We evaluated the extent to which an adverse water event (e.g. exceptional drought) would have a potential substantive or strategic business impact on our operations at the business and facility level. We define such impact to be any change in the determination of investors in buying, holding, and selling Dominion Energy securities. We reported that 15% of assessed facilities could have potential for substantive impact in operations in the event that an exceptional drought was to occur. For example, the Brunswick, Greensville and Southampton facilities located near the Chowan water basin are at risk in the event of a severe drought. We have contingency plans in place in order to address these potential water risks. The WRA is based on key areas of water risk identified by Dominion Energy environmental subject matter experts who consider regulatory and reputational risks (e.g. permits, compliance progress, regulatory changes), and baseline water stress levels reported by the Water Resources Institute (WRI) Aqueduct Water Atlas. The determination of which water impacts are considered substantive to the business are based on insight from Environmental Compliance and Environmental Excellence subject matter experts within Dominion Energy. Water availability may also be evaluated as part of other comprehensive, enterprise risk assessment processes that incorporate direct operations only.
Water quality at a basin/catchment level	Relevant, sometimes included	We consider water quality to be a highly relevant contextual issue across our direct operations, because poor incoming water quality increases treatment costs and could hinder power stations from functioning at full capacity. For relevant facilities, water quality risks are assessed as needed at the facility level at least as frequently as quarterly to annually, but more frequently during times of active construction. Assessments occur during regulatory water permit modification or renewal planning periods, or as forecasts advise, and during our 2019 Water Risk Assessment (WRA). 144 power generation and gas infrastructure sites were evaluated in the WRA. We evaluated the extent to which the risk of poor incoming or outgoing water quality would have a potential substantive or strategic business impact on our operations at the business and facility level. We define a "substantive financial or strategic impact" as one that would change how investors buy, hold, and sell Dominion Energy securities. One percent of assessed facilities have identified a potential substantive impact in operations related to water quality risks. For example, we have carefully considered water quality implications related to coal ash pond management at Bremo, Chesapeake, Yorktown, and other power generation facilities that historically used coal as fuel. Coal combustion residuals (CCR) or coal ash located at these facilities consists of many components–mostly silicon, iron, and aluminum. CCR composition varies widely depending on the coal type, origin, use, and air pollution control equipment. Coal ash pond closings are managed to avoid and minimize the direct discharge of pollutants or erosion that could impact water quality.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, sometimes included	We consider stakeholder interests and potential conflicts to be a highly relevant contextual issue across our direct operations because conflicts over water resources have the potential to increase water supply risk and hinder certain facilities (e.g. power stations and gas extraction and production) from operating at full capacity. For relevant facilities, stakeholder interests are assessed at least as frequently as annually during our Water Risk Assessment (WRA), and also during regulatory water permit modification or renewal planning periods. 144 power generation and gas infrastructure sites were evaluated in the WRA. We evaluated the extent to which an adverse stakeholder factors (e.g. water rights conflicts) would have a potential substantive or strategic business impact on our operations at the business and facility level. We define a "substantive financial or strategic impact" as one that would change how investors buy, hold, and sell Dominion Energy securities. For example, we engage landowners who serve as water suppliers for Dominion Energy Wexpro and communities for any new Dominion Energy project that may use higher volumes of water. This engagement informs our planning and minimizes potential concerns regarding stakeholders' water supply. The WRA is based on key areas of water risk identified by Dominion Energy environmental subject matter experts who consider regulatory and reputational risks (e.g. permits, compliance progress, regulatory changes), and baseline water stress levels reported by the WRI Aqueduct Water Atlas. The determination of which water impacts are considered substantive to the business are based on insight from Environmental Compliance and Environmental Excellence subject matter experts within Dominion Energy. Stakeholder interests and potential conflicts may also be evaluated as part of other comprehensive, enterprise risk assessment processes that incorporate direct operations only.
Implications of water on your key commodities/raw materials	Not relevant, explanation provided	We are not aware of any current indirect water-related risks that cannot be actively handled and managed. We maintain a robust supply chain system including but not limited to alternative suppliers of goods and services should certain suppliers not be able to meet our needs. We are not aware of any water-related issues involving our fuel supply that will impact our ability to procure fuel for operations. We do not anticipate this issue to be relevant in the future.
Water-related regulatory frameworks	Relevant, always included	We consider water-related regulatory frameworks to be a highly relevant contextual issue across our direct operations because new regulations may have the potential to prevent affected power stations from operating at full capacity if regulatory compliance is cost prohibitive. We regularly monitor and engage in the regulatory process associated with existing and anticipated water-related regulations to ensure that we remain compliant with these regulations. For relevant facilities, these regulatory risks are assessed as needed at the facility level at least as frequently as quarterly to annually. Assessments occur during regulatory water permit modification or renewal planning periods, and during our 2019 Water Risk Assessment (WRA). 144 power generation and gas infrastructure sites were evaluated in the WRA. We evaluated the extent to which regulatory issues would potentially impact operations at the business and facility level. We define a "substantive financial or strategic impact" as one that would change how investors buy, hold, and/or sell Dominion Energy securities. In 2019, the WRA concluded that 5% of power generation facilities are subject to regulatory or allocation risk. For example, the Chesterfield and Surry facilities, among others, are subject to the risks of Sections 316 (a) and 316 (b) of the Clean Water Act, which regulate thermal effluent discharges and cooling water intake structures, respectively. The determination of which water impacts are considered substantive to the business are based on insight from Environmental Compliance and Environmental Excellence subject matter experts within Dominion Energy. Water-related regulatory frameworks may also be evaluated as part of other comprehensive, enterprise risk assessment processes that incorporate direct operations only.
Status of ecosystems and habitats	Relevant, always included	We consider the status of ecosystems and habitats to be highly relevant during risk assessment. As our business involves producing and transporting energy to our customers, many steps are involved that have the potential to affect the wildlife and habitat surrounding our operations. As mentioned in our 2018 Sustainability & Corporate Responsibility Report, we are committed to meeting the energy needs of our customers in an environmentally responsible manner. Protecting natural and cultural resources is our duty, and it is also a good business practice. This aligns with the United Nations Sustainability Development Goal 15: Life on Land, which is to protect and promote the sustainable use of our lands. Through this alignment, we are committed to protecting birds and wildlife and to establishing over 500 acres of additional habitat by the end of 2020. We have an environmental management system (EMS) in place in which we assess the status of ecosystems and habitats as needed at the facility level. During siting or expansion of infrastructure and facilities, and also during water permit compliance monitoring and reissuances the Company utilizes assessment tools such as resource mapping tools and models. Two examples are the US Fish and Wildlife Service's Wetlands Mapper and the Pennsylvania Natural Diversity Inventory. We evaluate the impacts of our generating stations on local wildlife and habitat including consideration of threatened and endangered species. To support this effort, we routinely conduct biological studies at many of our power stations to assess the fisheries and habitat in waters around the facilities. Our nuclear power generation operations can be affected by competing uses of the Long Island Sound and the stress these uses may cause on the ecosystem. The Company monitors the aquatic life in the sound and reports on biological sampling results annually to the Connecticut Department of Energy Environmental Protection. These biological sampling results are evaluated to identify certain correlations and trends using standard statistical methods and tools. Results are further evaluated during permit renewals. The winter flounder and lobster populations are of particular interest to the Long Island Sound community, anglers, commercial fishermen, and regulators.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	Dominion Energy is committed to being an employer of choice while also meeting 100% compliance with regulations, especially those related to water. According to our 2019 Annual Report, the Company employed 19,100 full-time employees and we acknowledge that sustainability includes being an employer of choice and trusted community partner in addition to being environmentally and socially responsible. These commitments align with the UN Sustainability Development Goal 6 of providing Clean Water and Sanitation. We make sure that all of our power stations and gas facilities provide employees with access to clean drinking water, sanitary facilities, and solid waste management. Our solar facilities, with no onsite staff, do not provide WASH services. Where applicable, we have internal company standard operating procedures to assure compliance with applicable Company and regulatory drinking water supply and treatment systems requirements. For Dominion Energy Transmission facilities that have an onsite water supply and treatment system and to ensure compliance, Dominion Energy Environment and Sustainability (DEES) is responsible for applicable regulatory requirements and permitting/monitoring requirements. DEES will obtain the necessary permits and ensure that all potable water suppliers will be tested in accordance to their associated permits and applicable regulations. For example, Dominion Energy operates a groundwater well at Bath County Power Station. On a monthly basis, we test our water for bacteria (Coliform and E. Coli); results are sent to the Virginia Department of Health's Office of Drinking Water.
Other contextual issues, please specify	Please select	

W3.3c

(W3.3c) Which of the following stakeholders are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Customers	Relevant, always included	We are committed to providing electric and gas services to our customers in a reliable, safe, efficient, and cost-effective manner while protecting the environment and communities in which we live and operate. To meet this commitment, the needs of our customers are considered in our risk assessments for direct operations, because this can result in an even more sustainable and competitive company in the future. For example, Dominion Energy has a goal of 100% compliance with regulations, including water-related regulations, and a commitment to incorporate environmental considerations in our planning, design, construction, operational, and decision- making processes align with Sustainable Development Goals, including Goal 15 Life on Land. These goals and commitments demonstrate that society, and our customers, are an important part of our water-related risk assessment and mitigation process. We engage with our customers through public meetings held during facility permitting processes. For example, Dominion Energy uses groundwater for facility processes and human consumption at the Dominion Energy Cove Point (DECP) liquefied natural gas (LNG) terminal in Maryland. The facility's zero-discharge design is the first of its kind for an LNG facility as process water is recycled and reused, versus being released to the environment. Water use associated with the operation of the facility is reported to Maryland Department of the Environment in accordance with approvals. At DECP, Dominion Energy uses the Lower Patapsco aquifer, because the Aquia aquifer is considerably allocated and has a high level of interest by the public. Public interest and comments expressed during the permit process on the potential for over allocation of the Aquia aquifer led Dominion Energy to use the Lower Patapsco aquifer for DECP. In addition, we are committed to transparency with our customers regarding our water performance, which testifies to our commitment to engaging with our customers on all of our water-related risks. Information related to our water performance, metrics, and goals are publicly available to our customers through our website's Environmental and Social Stewardship page, and 2018 Sustainability & Corporate Responsibility Report. We engage with our customers by providing them with a variety of tools aimed at managing energy use, saving money, and improving customer service.
Employees	Relevant, always included	We are committed to a safe and rewarding workplace for our employees. To meet this commitment, the safety of our employees is considered in our risk assessments for direct operations, which includes water-related risks. Additionally, our employee staffing level and skill sets are considered when assessing and planning for specific water-related issues. We engage with our employees by providing training and compliance materials and providing them with oversight over specific developments tailored to specific jobs, education, and experience levels to improve safety and operational performance. We also keep our employees informed of our progress towards achieving water-related goals. For example, in 2019, equipment was installed at Warren County Power Station to accurately measure the quantity of recycled water. Station engineering, maintenance, operations, and leadership were involved in the scope, design, execution, test and operations of the measurement system. In 2019, our employees began receiving monthly email updates from the Environmental Compliance Coordinator on the portion of purchased water that was able to be recycled onsite the prior month and year to date. The monthly emails also recognize individual contributions and provide a forum to celebrate achievement of milestones. Station leadership suggested having lunch catered to celebrate, but the team is currently considering other creative ways to celebrate milestones due to social distancing considerations. Additionally, through Dominion Energy's Annual Incentive Plan (AIP), C-suite officers and other eligible employees are eligible for a monetary reward based on the Company's achievement of financial, individual operating and stewardship goals, which may be directly or indirectly linked to water stewardship. For example, AIP performance indicators may include updating compliance planning and training tools focused on storm water pollution prevention. To further foster innovation, "sprint teams" are routinely formed to coalesce subject matter experts to take on a particular challenge. The Company recognizes impactful ideas can come from all levels. All employees are engaged through surveys so they can provide ideas for improvement in order to better leverage the wealth of knowledge across all business units. These ideas are regularly reviewed by sprint teams, which take the best ideas to executive leadership for review and support.
Investors	Relevant, always included	Every day we deliver on our promises to provide reliable electric and gas service at reasonable rates and leverage business opportunities to add shareholder value. To meet this commitment, water-related issues potentially affecting shareholder value are considered in our risk processes for direct operations. Information related to our water performance, metrics, and goals are publicly available to our investors through our website's Environmental and Social Stewardship page and 2018 Sustainability & Corporate Responsibility Report. We engage investors through quarterly earnings calls and annual meetings.
Local communities	Relevant, always included	We are committed to the well-being of the communities we serve and to the vitality of the environment we share, because this commitment can result in an even more sustainable and competitive company in the future. We have developed an Environmental Justice Policy in which we commit to listening to and learning from the communities we serve. To that end, we exercise community outreach and evaluations through frequent public meetings. To meet our commitment, the needs and well-being of the communities we serve are considered in risk assessments for direct operations. Additionally, we are committed to being transparent with the local communities on our environmental efforts and stewardship. We engage with the local communities through public meetings held during facility permitting processes. For example, Dominion Energy uses groundwater for facility processes and human consumption at the Dominion Energy Cove Point (DECP) liquefied natural gas (LNG) terminal in Maryland. The facility's zero-discharge design is the first of its kind for an LNG facility as process water is recycled and reused, versus being released to the environment. Water use associated with the operation of the facility is reported to Maryland Department of the Environment in accordance with approvals. At DECP, Dominion Energy uses the Lower Patapsco aquifer, because the Aquia aquifer is considerably allocated and has a high level of interest by the public. Public interest and comments expressed during the permit process regarding the potential for over allocation of the Aquia aquifer led Dominion Energy to utilize the Lower Patapsco aquifer for DECP. Information related to water performance, metrics, and goals are available to our local communities through our website's Environmental and Social Stewardship page, and 2018 Sustainability & Corporate Responsibility Report.
NGOs	Relevant, always included	We work hard to ensure we are aware of all public opinions related to our business, and NGOs can provide valuable perspective on limiting impacts to the environment, landowners and communities. We hold an annual stakeholder meeting associated with our Integrated Resource Plan (IRP) process. Stakeholders, including NGOs, customers, and local community members are invited to attend and participate. In addition, we often meet with NGOs during new facility planning and construction, as well as for projects at existing facilities. This NGO engagement can proactively identify project-specific risks. For example, we partnered with an NGO, The Nature Conservancy, to develop a reference document that addresses how to minimize water-related and other environmental impacts of pipeline construction in mountainous areas. Recommended best practices from the report include accurately identifying water features during the pre-construction phase and optimizing groundwater management during construction and restoration phases.
Other water users at a basin/catchment level	Relevant, sometimes included	We assess water risk using targeted and enterprise risk assessments, during annual budgeting, and during permit reissuances. We operate electricity generating stations on water bodies that are also used by other entities including private, municipal and industrial users. These other uses are considered to evaluate any potential conflict between uses as they relate to individual power stations during risk assessment steps in environmental due diligence processes. For example, since June 2010, the South Carolina Department of Health and Environmental Control (DHEC) has been assessing the presence of tar-like material that was determined to be from discharges of coal tar to the Congaree River from a former manufactured gas plant originally located between Huger, Hampton, and Williams Streets, and owned by South Carolina Electric & Gas (SCE&G, now Dominion Energy South Carolina). By 2013, DHEC had evaluated potential cleanup alternatives for the Congaree River Project Site (Site) and narrowed viable alternatives down to four before pursuing a removal option. On March, 2, 2019 the Company hosted a community meeting for neighbors of the Site (City Club Condo). Approximately 25 residents attended the meeting. A member of Company leadership provided the history of previous restoration plans. He also outlined the current stakeholder-approved Modified Removal Action plan and opened the floor for questions. On April 2, 2019, DHEC held a community meeting, attended by Company Environmental and Public Affairs representatives, DHEC, and community stakeholders to discuss the Site. At this meeting, DHEC provided an update on proposed changes in the preferred cleanup method for the legacy tar-like material located downstream of the Gervais Street Bridge.
Regulators	Relevant, always included	Regulators are always included in our water-related risk assessments because they hold specific expertise and knowledge on the implementation of regulatory requirements. Water-related issues considered for direct operations include the impacts of current regulations at the local, regional, and national level on our electricity generation stations and gas operations. We regularly monitor and engage in the regulatory process associated with existing and anticipated water-related regulations through meetings to clarify regulatory requirements and through submitting required compliance documentation and assessments, developing action plans, hosting meetings, and more. For example, annual community, tabletop meetings are conducted to review registered dams' emergency action plans in Virginia (i.e. at Chesterfield, Bremo, and Possum Point power stations). Regulatory attendees of these meetings include the Virginia Department of Conservation and Recreation, the Local Emergency Planning Commission, and the Virginia Department of Emergency Management.
River basin management authorities	Relevant, sometimes included	Water-related issues considered for direct operations include the impacts of current regulations at the local, regional, and national level on our electricity generation stations. In some of our operating areas, which includes the James, Chowan, Chesapeake, and Roanoke river basins, we regularly engage with river basin management authorities in the regulatory process associated with existing and anticipated water-related regulations through submitting required compliance documentation and assessments, developing action plans, and hosting meetings. Dominion Energy considers river basin management authorities to be relevant and they are included in some water-related risk assessments because activities and policies from management authorities can impact operations at some locations, such as power stations. We engage river basin management authorities because their activities and mission can be integral to sustaining an adequate operational water supply. They promote comprehensive planning to maintain flow in major rivers and monitor activities that might negatively impact the quality of water resources within the basin.
Statutory special interest groups at a local level	Relevant, always included	We work hard to ensure we are aware of all public opinions related to our business, and we explicitly consider tribes and any groups or individuals with an interest in historic resources. For example, in our Electric Transmission Line Planning and Public Engagement Process, we consult with historic preservation and natural resources groups and Native American tribes by soliciting comments via letters and through meetings to request and consider their inputs to minimize impacts (e.g. environmental, water-related) to identified sites and resources. To ensure a focus on meaningful tribal outreach, Dominion Energy has a designated advisor role responsible for leading engagement with Native tribes to ensure proactive, consistent efforts across our footprint. In many areas where Dominion Energy does business, Native American tribes have community, religious and cultural ties that may intersect with Company interests. Each tribe has its own laws, procedures and guidelines governing activities on tribal lands and ancestral interests. Dominion Energy's policy is to engage with tribes in the early stages — regardless of their federal-recognition status — as part of project outreach and communications. Whenever a project has the potential to affect the rights or resources of Native people, Dominion Energy works directly with the tribe to fully understand their concerns and determine appropriate measures to avoid or minimize our impacts. We engage statutory special interest groups at a local level because these individuals and groups can provide insight that promotes our ongoing endeavors to satisfy customer expectations, promote shareholder value, serve local communities, enhance Dominion Energy's culture, and demonstrate the Company's commitment to the environment.
Suppliers	Relevant, always included	We manage risks in our water supply chain by ensuring adequate water supply and quality and the identification and procurement of alternative suppliers of goods and services. We engage with our suppliers through contract negotiations and meetings. We are not aware of any water-related issues involving our fuel supply that will impact our ability to procure fuel for operations. We engage suppliers for several reasons including: 1) it is essential to our continuity of operations to have adequate supplies, 2) supplier engagement is consistent with our long-term growth strategy which addresses the interests of shareholders, customers, employees, suppliers, and the communities we serve, and 3) our suppliers must meet environmental standards to be selected and continue as a Dominion Energy suppliers. This engagement can result in an even more sustainable and competitive company in the future.

	Relevance & inclusion	Please explain
Water utilities at a local level	Relevant, always included	Dominion Energy considers water utilities at the local level to be highly relevant in our assessment of water-related risk because we rely on utility and industrial suppliers for all or a portion of water used at some of our electricity generating stations. These water providers are considered in facility-specific operational evaluations for direct operations and on a routine basis (e.g. quarterly, annually, or according to the state water supply permitting or planning cycle). We engage with water utilities at the local level through contract negotiations and meetings.
Other stakeholder, please specify	Relevant, always included	When planning large infrastructure projects, we evaluate potential risks to minority and low income communities. We are committed to the well-being of the communities we serve and to the vitality of the environment we share. To meet this commitment, the needs and well-being of the communities we serve are considered in our risk assessments for direct operations. We have developed an Environmental Justice Policy in which we commit to listening to and learning from the communities we serve, which include minorities and low-income families. To that end, we exercise community outreach and evaluations through frequent public meetings.

W3.3d

(W3.3d) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

Dominion Energy's process for identifying, assessing, and responding to water-related risks within our direct operations is conducted through our enterprise risk assessment system, led by the Corporate Strategic Risk team and involves representatives from all Business groups. Additionally, a water risk assessment is conducted by Dominion Energy's Environment and Sustainability team. The frequency of evaluation varies upon the status of the facilities. Facilities undergoing active construction may undergo weekly assessments, otherwise site assessments generally would occur on a quarterly or annual basis.

The major risk areas evaluated in the annual assessment include, but are not limited to:

-Strategic

-Operational

-Financial

-Compliance and Regulatory

Environmental related risk is one of the many considerations regarding the major risk areas above. The tools and methods used in water risk assessment include internal company methods. The Company uses outcomes from probabilistic power generation and demand modelling to anticipate future water risks. The Company uses the Water Resources Institute (WRI) Aqueduct Water Atlas for the additional water risk assessment that informs sustainability disclosures. These tools were used to determine which of our facilities are subject to various water-related risks, which include allocation, drought, water rights or jurisdiction issues, water quality, severe weather, and regulatory risks. On an annual basis, water-related risks are identified and assessed during contract negotiation with suppliers, during facility-level annual budgeting, and during the water permitting process with state agencies. Environmental compliance and regulatory staff identify key areas of water risk as observed during permit compliance activities or documents during routine environmental site assessments. Dominion Energy Environment and Sustainability (DEES) subject matter experts assess identified risks, as well as environmental regulatory or reputational risk based on the tools mentioned and knowledge of permits, compliance progress, and regulatory changes. Finally, the business group lead staff, such as an Environmental Compliance Manager, and Environmental Compliance and Environmental Excellence subject matter experts review the draft water risk assessment to determine which impacts would be considered substantive to the overall business. The outcomes of the water risk assessment are used to inform the internal decision-making process by identifying areas of water-related risks, so that the appropriate and necessary management and mitigation methods may be developed. Dominion Energy also conducts a separate, comprehensive, company-wide (enterprise) risk assessment process incorporating direct operations only that may evaluate water-related risks, including water quality and water quantity. The risks assessed include, but are not limited to, financial, operating, compliance, environmental, legal, regulatory, strategic, and reputation risks, as well as emerging risks. Responses to water-related risks vary depending on the risk. Responses range from budgeting adjustments to infrastructure improvements. We also hold an annual stakeholder meeting associated with our Integrated Resource Plan (IRP) process. Stakeholders, customers and local community members are invited to attend and participate.

W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, both in direct operations and the rest of our value chain

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

We publish material information about the Company's activities, including water-related risks, in official filings such as the Summary Annual Report and 10-K Annual Report. We define "substantive financial or strategic impact" to be any change in the determination of investors in buying, holding, and/or selling of Dominion Energy securities. As such, the metric or indicator of "substantive change" is whether a reasonable investor would attach any importance to the impact in question. We set this threshold very tightly; any change to which a reasonable investor would attach importance when considering Dominion Energy securities counts 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 water-related substantive impact, our 2019 10-K Annual Report identifies hurricanes, winter storms, earthquakes, floods and other natural disasters as having the potential to stress systems and disrupt operation of company facilities, negatively impacting our direct operations and potentially being of importance to a reasonable investor. For example, our Colonial Trail West solar site is located in eastern Virginia near the James River in Surry County, and due to its location could be vulnerable to extreme weather events including hurricanes. If this facility were to be destroyed by a weather event, this would be a substantial loss to the company as the capital expenditures associated with the facility totaled over $250 million. Dominion Energy considers information to be "material" based on thresholds defined by the Securities and Exchange Commission (SEC) for the companies' financial reporting.

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	32	1-25	We have a total of 32 power generation facilities exposed to water risk with the potential to have a substantive financial or strategic impact. We have no gas facilities or solar sites exposed to water risks that would have the potential to be financially or strategically substantive to the company.

W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin

United States of America	James River

Number of facilities exposed to water risk
7

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
1-25

% company's global oil & gas production volume that could be affected by these facilities
Less than 1%

% company's total global revenue that could be affected
11-20

Comment
Certain facilities in the river basin may be subject to changes associated with the Clean Water Act 316(b) Cooling Water Intake and 316(a) Thermal Discharge Rules based on current station sampling and evaluation, as well as impacts associated with the Steam Electric Effluent Limitation Guidelines. In addition, costs associated with treating water discharges from the closure of coal ash ponds and water desalination are also substantive. Several power generation facilities in this river basin are potentially at risk of experiencing regulatory water allocation risk due to limitations to supply water, but only in cases of extreme drought statewide.

Country/Area & River basin

United States of America	Roanoke River

Number of facilities exposed to water risk
3

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

1-25

% company's global oil & gas production volume that could be affected by these facilities
Less than 1%

% company's total global revenue that could be affected
1-10

Comment
During severe drought, it is possible that a water usage restriction could be levied against power stations in the Roanoke River Basin, which would impact our ability to generate due to lack of water. Flooding risk may cause overflow of Coal Combustion Residual (CCR) holding ponds, otherwise known as ash ponds and has the potential to result in unauthorized discharges to adjacent surface waters.

Country/Area & River basin

United States of America	Potomac River

Number of facilities exposed to water risk
3

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
1-25

% company's global oil & gas production volume that could be affected by these facilities
Less than 1%

% company's total global revenue that could be affected
11-20

Comment
One facility in the river basin may be subject to change associated with the 316(b) Cooling Water Intake and another may be subject to the 316(a) Thermal Discharge Rules, based on continuing evaluation. One facility has an inherent drought risk due to its reliance on a third-party water supplier. In addition, costs associated with treating water discharges from the closure of coal ash ponds are also substantive.

Country/Area & River basin

United States of America	Other, please specify (Long Island Sound)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
Less than 1%

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
1-25

% company's global oil & gas production volume that could be affected by these facilities
Less than 1%

% company's total global revenue that could be affected
11-20

Comment
Our power generating facility in the Long Island Sound Basin may be subject to change associated with the Clean Water Act 316(b) Cooling Water Intake and 316(a) Thermal Discharge Rules. The station has conducted thermal studies associated with its discharge permit and has implemented cooling water flow reduction measures (installation of variable speed pump drives, timed pump shutdowns during refueling outages) that reduce entrainment and possibly impingement. There is also a risk for coastal flooding, which may lead to the build-up of debris.

Country/Area & River basin

United States of America	Other, please specify (Chowan River)

Number of facilities exposed to water risk
3

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
1-25

% company's global oil & gas production volume that could be affected by these facilities
Less than 1%

% company's total global revenue that could be affected
11-20

Comment
One power generating facility in the Chowan River Basin is subject to flooding risk during extreme weather events. This could lead to lost power generation. Several power generating facilities in this river basin are also potentially at risk of experiencing a reduced groundwater allocation or increased groundwater costs, in their value chain because it uses groundwater from a sole municipality source within the Virginia Eastern Groundwater Management Area.

Country/Area & River basin

United States of America	Other, please specify (York)

Number of facilities exposed to water risk
3

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
1-25

% company's global oil & gas production volume that could be affected by these facilities
Less than 1%

% company's total global revenue that could be affected
11-20

Comment
In the York River Basin, the power generating facilities may be subject to drought risk from potential low levels of groundwater and reliance on water supplier, which may pose limitations on water. One facility will be subject to the Clean Water Act 316(b) Cooling Water Intake Rule. These risks could result in increased operational costs or curtailed power generation.

Country/Area & River basin

United States of America	Other, please specify (Clinch-Powell River)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
Less than 1%

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
1-25

% company's global oil & gas production volume that could be affected by these facilities
Less than 1%

% company's total global revenue that could be affected
1-10

Comment
The facility in the Clinch River Basin could have difficulty operating in a situation of severe drought or flooding as it is located in a lower watershed with a hydrograph exhibiting a steep rising limb (flashy); flooding may overwhelm rainfall collection systems, thereby impacting operations.

Country/Area & River basin

United States of America	Other, please specify (Broad River)

Number of facilities exposed to water risk
3

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
1-25

% company's global oil & gas production volume that could be affected by these facilities
Less than 1%

% company's total global revenue that could be affected

Less than 1%

Comment
Facilities in the Broad River Basin may be susceptible to drought, flooding and/or severe weather risks that would lead to low water inflow and potentially impede on power generation operations. Parr Hydro and Neal Shoals have minimum flow agreements as part of their Federal Energy Regulatory Commission (FERC) licenses. The Fairfield pumped storage facility may be subject to flooding; operations would have to cease if the water levels become too high.

Country/Area & River basin

United States of America	Other, please specify (Congaree River)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
Less than 1%

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
1-25

% company's global oil & gas production volume that could be affected by these facilities
Less than 1%

% company's total global revenue that could be affected
1-10

Comment
The facility in the Congaree Basin could have difficulty operating in a situation of severe drought or flooding as this facility is wholly dependent on the host facility for water needs.

Country/Area & River basin

United States of America	Other, please specify (Saluda River)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
Less than 1%

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
Less than 1%

% company's global oil & gas production volume that could be affected by these facilities
Less than 1%

% company's total global revenue that could be affected
Less than 1%

Comment
The power generating facility in the Saluda River Basin is susceptible to drought and flooding risks. It is undergoing Federal Energy Regulatory Commission (FERC) licensing due to its license term expiring. Additional requirements may be required for confirmed cases of Shortnose Sturgeon.

Country/Area & River basin

United States of America	Other, please specify (Santee River)

Number of facilities exposed to water risk
2

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
1-25

% company's global oil & gas production volume that could be affected by these facilities
Less than 1%

% company's total global revenue that could be affected
1-10

Comment
One facility in the Santee River Basin is susceptible to declining water quality risk. Another facility has the potential risk for change associated with the CCR, 316(b) Cooling Water Intake and the 316(a) Thermal Discharge Rules,

Country/Area & River basin

United States of America	Other, please specify (Savannah River)

Number of facilities exposed to water risk
2

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
1-25

% company's global oil & gas production volume that could be affected by these facilities
Less than 1%

% company's total global revenue that could be affected
1-10

Comment
Facilities in the Savannah River Basin may be susceptible to drought, flooding, CCR, and 316 (b) risks.

Country/Area & River basin

United States of America	Other, please specify (Catawba)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
Less than 1%

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
1-25

% company's global oil & gas production volume that could be affected by these facilities
Less than 1%

% company's total global revenue that could be affected
1-10

Comment
The facility in the Catawba basin may be subject to Coal Combustion Residual (CCR) and Effluent Limitation Guidelines (ELG) risks.

Country/Area & River basin

United States of America	Other, please specify (Edisto)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
Less than 1%

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
1-25

% company's global oil & gas production volume that could be affected by these facilities
Less than 1%

% company's total global revenue that could be affected
1-10

Comment
The facility located in the Edisto basin may be subject to Coal Combustion Residual (CCR) and 316(b) risks.

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

United States of America	Other, please specify (Multiple basins: James and Potomac)

Type of risk & Primary risk driver

Regulatory	Tighter regulatory standards

Primary potential impact
Increased cost of capital

Company-specific description
In 2017, Virginia's Governor signed legislation into law requiring Dominion Energy to conduct an assessment of closure alternatives for the ash ponds at the Bremo, Chesapeake, Chesterfield, and Possum Point power stations to include an evaluation of excavation for recycling or offsite disposal, surface and groundwater conditions and safety. Dominion Energy's expert contractor completed the assessments and the report was provided in December 2017. Pursuant to the legislative requirements, in 2018, Dominion Energy announced actions toward closing our five remaining ash ponds at the four power stations. In March 2019, the Governor of Virginia signed into law legislation (SB 1355) which requires any Coal Combustion Residuals (CCR) units located at Virginia Power's Bremo, Chesapeake, Chesterfield, and Possum Point power stations that stop accepting CCR prior to July 2019 to be closed through a combination of excavating the CCR to lined landfills and recycling for beneficial use. The legislation further requires that at least 6.8 million cubic yards of CCR be beneficially reused. Compliance with SB 1355 results in an increased cost of capital related to the closure of the Chesterfield ash pond, transport of CCR to landfills, and CCR reuse. In 2020, additional legislation was passed requiring the Company to identify and test all drinking water wells within a 1.5-mile radius of Bremo, Chesapeake Energy Center, Chesterfield and Possum Point power stations. The initial surveys to locate the wells are underway at an estimated cost of $140,000. The remainder of Dominion Energy's coal ash ponds will be closed in accordance with the federal CCR regulation and direction from the Virginia Department of Environmental Quality and the South Carolina Department of Health and Environmental Control. In South Carolina, Dominion Energy took preemptive measures to reclaim and remediate the coal ash pond at the Wateree Power Station. More than 2.5 million cubic yards of ash and soil was either moved to a landfill or recycled for beneficial reuse. In 2019, we finished the closure project 13 months ahead of schedule and received Clean Closure Certification from the South Carolina Department of Health and Environmental Control.

Timeframe
More than 6 years

Magnitude of potential impact
Medium-low

Likelihood
Virtually certain

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

Potential financial impact figure (currency)
3000000000

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

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

Explanation of financial impact
We estimate a financial impact figure based on existing studies to reflect the future, potential magnitude of costs. The extent and timing of costs and liabilities to comply with federal and state laws, regulations and legal requirements related to coal ash remediation are uncertain and difficult to estimate. The inherent financial impact of the risk is best approximated by the estimated cost to recycle coal ash material. This is more appropriate than quantifying any value of stranded assets or the value lost due to halted production because the Company is retiring some coal burning units to meet Company and certain state climate goals not due to CCR requirements. As part of the strategy to close the ash ponds, Dominion Energy obtained proposals to determine the feasibility and costs of recycling at five ash ponds at four power stations in Virginia (Chesterfield, Possum Point, Chesapeake and Bremo) and other ash facilities at Chesapeake Energy Center. Dominion Energy Virginia already recycles approximately 450,000 to 500,000 tons of coal combustion by-products each year. Bids were considered if they encapsulated the ash (i.e. bind the ash into a solid such as concrete for safe reuse), as required. The bids varied widely in terms of their impact on local communities resulting from the recycling process, time it will take to complete the closures, and cost. Based purely on the individual bids received, the costs range from $2.345 billion to $5.642 billion to recycle the ash at the sites. However, multiple bids were received that were based on a single bidder being awarded all the work to recycle the ash at all the sites. In this case, the costs range from $2.773 billion to $3.358 billion. We therefore provide a single figure of $3 billion as an estimate of the potential financial impact. Note that these costs include project management, operation and maintenance, etc. These offers, if implemented, would recycle around 45% percent of the ash and landfill the remaining ash over a 15-year timeframe. Asset retirement obligations (ARO) related to coal ash pond closure and ash management may vary from the estimates used to record the obligations. Variables such as inflation, interest rates, and depreciation of asset retirement costs are incorporated into ARO calculations.

Primary response to risk
Comply with local regulatory requirements

Description of response
In 2019, we continued compliance activities at our facilities subject to the legislation. Dominion Energy is committed to protecting the environment by going above and beyond state and federal standards, ensuring safety in our communities, and communicating with our neighbors every step of the way. In 2019, we have retired Bremo, Chesapeake Energy Center, and several units at Possum Point. At the Chesterfield power station, developments are underway (a water treatment system and roadway construction) as we proceed towards retirement of the ash ponds. As we transition to cleaner energy sources of the future, we will continue to be responsible for managing coal ash consistent with the new requirements in Virginia. We will ensure the communities we call home are safe and environmentally sound. In addition, by 2025, we expect to retire more coal and oil-fired electric generation.

Cost of response
500000000

Explanation of cost of response
The CCR regulations require Dominion Energy to make additional capital expenditures and increase operating and maintenance expenses. In addition, Dominion Energy will incur expenses and other costs associated with closing, corrective action and ongoing monitoring of certain ash ponds. From the time period of 2016 to 2019 the Company has made approximately $500 million in expenditures to close affected ash ponds through activities such as excavating affected ash ponds, implementing water quality and quantity controls, and transporting CCR to landfills. We provide this figure to reflect the magnitude of response costs. As we comply with the Commonwealth of Virginia's closure requirements, the closure costs can be recoverable through a rate adjustment clause approved by the Virginia State Corporation Commission with a

revenue requirement that cannot exceed $225 million in any 12-month period.

Country/Area & River basin

United States of America	Other, please specify (Multiple basins in which we operate -- Broad, Chowan, Clinch-Powell, Roanoke, Saluda, Santee, Savannah and York river basins)

Type of risk & Primary risk driver

Physical	Flooding

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
Our operations can be affected by changes in the weather. Severe weather, including but not limited to hurricanes, floods, landslides, subsidence, and winter storms can be destructive, causing outages and property damage that may disrupt production capacity and/or incur additional expenses. 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. According to water risk assessments conducted in 2019, it was determined that multiple power generation facilities (e.g. Southampton, Gravel Neck, Clover, Hagood Station) are in areas that are a potentially substantive flood risk. These power stations are located in the Broad, Chowan, Clinch-Powell, Roanoke, Saluda, Santee, Savannah, and York river basins.

Timeframe
1-3 years

Magnitude of potential impact
Low

Likelihood
About as likely as not

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)
8115

Potential financial impact figure - maximum (currency)
8200000

Explanation of financial impact
The potential financial impact figure is based on an assumption that an affected station would cease power generation for up to two days. It reflects a high-level approximate cost of $33 per MWh for forgone generation revenue for a pure baseload generator. This approximate cost is based on publicly available Intercontinental Exchange (ICE) indices plus publicly available historical locational spread, and publicly available PJM capacity market prices. The potential future loss of generation was estimated based on annual 2019 generation data for stations identified through the Company Water Risk Assessment as having risk of ceased operations due to flooding or severe weather. The financial impact could vary greatly depending the location, dates, and duration of time that power generating operations cease. We provide a range with the low figure representing the cost to purchase two days of power for one lower output station and the maximum reflecting the cost to purchase two days of power for all stations having operational risk due to flooding or severe weather. Two days of foregone generation for the lower output station (Neal Shoals hydro station) is roughly 246 MWh. Two days of foregone generation for all stations with substantive flooding risk was estimated to be 248440 MWh. These estimated production values multiplied by $33 per MWh results in an estimated range of $8.115 thousand to $8.198 million (rounded to $8.2 million). To the extent severe weather or higher commodity prices due to increased demand affect the cost of fuel for our power stations, those incremental fuel expenses potentially would be recoverable through rates for the Company's regulated businesses and reflected in higher wholesale power prices for the Company's merchant businesses.

Primary response to risk
Develop flood emergency plans

Description of response
Our facilities are designed to withstand severe weather and other natural events. For example, substation structures are designed to withstand basic wind loads of 90 to 130 mph, three second gusts. Floods do occur from time to time, such as during past hurricanes, and we have contingency plans and storm preparation and recovery plans that are routinely assessed and improved based upon experience during drills. For example, we have developed flood emergency plans for power generation facilities (e.g. Southampton, Gravel Neck) located in areas that are a potential flood or severe weather risk. We coordinate with state and local emergency management agencies to refine communications and restoration plans and consult with similarly situated utilities in preparation for and restoration following extreme weather events. In addition to the design of its facilities and its storm recovery plans, the Company continuously monitors and assesses the physical risks associated with severe weather conditions and adjusts its planning to reflect the results of that assessment. To assess the financial effects of these physical risks, the Company incorporates weather variability into its generation planning process. Historical weather patterns and their respective impacts on demand for electricity and natural gas are utilized.

Cost of response
0

Explanation of cost of response
The cost of response varies with the magnitude of the flood and the specific facility (ies) impacted by the flood. Generally, the cost of operational adjustments and contingency planning, such as for extreme weather or emergency events is embedded in our tradition of extensive planning to ensure we provide safe, reliable and affordable utility service. For example, when a hurricane was forecasted to affect a construction project; the response was to follow contingency plans, secure chemicals and construction supplies, and temporarily cease construction activity. Flooding conditions at Clover Power Station cause the station personnel to closely monitor the dry ash landfill and water levels in the water, wastewater, and stormwater ponds. The cost to direct staff resources to avoid flooding, increase monitoring or prepare for a hurricane is generally not significantly higher than normal staffing costs. Similarly, facilities with impoundments mitigate flooding risk with no additional cost through planning, monitoring forecasts, manipulating reservoir levels, and through maintenance. For example, Williams Station cleans out storm-water ditching, and ponds routinely, and recently installed an emergency diesel generator at the "E" polishing pond in the event power lines are taken down. We manage water levels at Lake Gaston and Roanoke Rapids hydroelectric power stations to balance recreational use, environmental downstream flows, and flood mitigation.

Country/Area & River basin

United States of America	Other, please specify (Multiple basins in which we operate -- Broad, Chowan, Clinch-Powell, Congaree, James, Potomac, Roanoke, Saluda, Santee, Savannah and York river basins)

Type of risk & Primary risk driver

Physical	Other, please specify (Drought and other climate change impacts)

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
Our operations could be adversely affected and our physical plants 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 (e.g. droughts), abnormal levels of precipitation and, for operations located on or near coastlines, a change in sea level or sea temperatures. These weather events could have the potential impact of reduction or disruption in the production capacity of our power generation facilities. While assessing facility-specific risks in 2019 we identified several facilities (e.g. Bath, Mt. Storm, Clover, Southampton) located in areas that have potentially substantive drought risk. Power stations in areas with potentially substantive drought risk are located in the Broad, Chowan, Clinch-Powell, Congaree, James, Potomac, Roanoke, Saluda, Santee, Savannah, and York river basins. Drought conditions could potentially affect the quantity and quality of the water that is sourced from the river basin.

Timeframe
More than 6 years

Magnitude of potential impact
Low

Likelihood
Unlikely

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

Potential financial impact figure (currency)
0

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

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

Explanation of financial impact
To the extent severe weather or higher commodity prices due to increased demand affect the cost of fuel for our power stations, those incremental fuel expenses potentially would be recoverable through rates for the Company's regulated business and reflected in higher wholesale power prices for the Company's merchant businesses. For example, in July 2002, during a record drought in Virginia, North Carolina, West Virginia, and surrounding states, Dominion Energy customers in Virginia increased their energy usage more than 9.4 percent over the same period in 2001. Higher-than-normal temperatures and triple-digit heat indices sent customers indoors where they used their air conditioners, fans and other electrical appliances more frequently. The potential financial impact for drought risk is decreasing as Dominion Energy has been reducing its dependency on water through measures, such as the use of air-cooled condensers.

Primary response to risk
Other, please specify (Event planning)

Description of response
Our facilities are designed to withstand severe weather, which they have been subject to over the last century without significant impact. In event of a drought risk, a facility may need to switch from a municipal supply to a reservoir, or a power station may need to switch to a less water-intensive fuel. Our generating plants (e.g. Clover, Altavista, Chesterfield) have drought/flood, storm preparation, and recovery plans that are routinely improved based upon experience during drills. For example, a lake level contingency plan was developed to inform North Anna Nuclear Power Station's operations during extreme weather conditions and has been incorporated into the station Virginia Pollutant Discharge Elimination System permit and spillway operation procedures. We coordinate with emergency management agencies to refine communications and restoration plans and consult with similarly situated utilities regarding extreme weather events. In addition to the design of its facilities and its recovery plans, the Company continuously monitors and assesses the physical risks and related financial effects associated with severe weather conditions. In 2018, we completed a report focusing on a climate change scenario analysis for Dominion Energy's generation portfolio and providing an overview of the company's strategy to further reduce our carbon footprint. In the report, we acknowledge that changes in future weather can lead to reduced water levels or changes in water temperatures that could impair operations at some of the Company's power stations.

Cost of response
0

Explanation of cost of response
The cost of response varies with the magnitude of the drought and the specific facility(ies) impacted by the drought. Generally, the cost of contingency planning, such as for extreme weather or emergency events and coordination with internal staff and external emergency plan agencies, is embedded in our tradition of extensive planning to ensure we provide safe, reliable and affordable utility service. For example, the cost is negligible for Urquhart Station personnel to participate in a local consortium providing input to the Army Corp of Engineers who control the Savanah River elevation and flows. Warren County Power Station has a Drought Response Plan, which is developed during our environmental and contingency planning. The Plan seeks to limit non-essential water use during drought. It tiers the approach to implement stricter reductions from Drought Watch to Drought Warning to Drought Emergency. Activities like equipment washing might be "non-essential," but the plan does not list power generation as non-essential.

Country/Area & River basin

United States of America	Other, please specify (Multiple basins in which we operate)

Type of risk & Primary risk driver

Regulatory	Regulatory uncertainty

Primary potential impact
Increased compliance costs

Company-specific description
The Cooling Water Intake Regulations under 316(b) of the Clean Water Act require applicable facilities to comply/operate with specific cooling water intake systems to reduce mortality due to impingement. During the 2019 Water Risk Assessment, eight of our power generation facilities (e.g. Chesterfield, Surry, Millstone, North Anna, Possum Point, Cope, Urquhart, and Williams) were identified as being subject to ongoing potential 316(b) regulatory risk or regulatory uncertainty. These facilities are located in the Edisto, James, Long Island Sound, Potomac, Santee, Savannah, and York river basins. Some facilities have clearly identified steps to achieve compliance, whereas others are subject to some regulatory uncertainty. While we continue to implement studies and technological solutions, where needed, state regulatory agencies' interpretation of the rule's requirements and applicability varies. This has created additional, unexpected steps in the studies (e.g. additional peer review), which may result in increased compliance costs. In some states, there is uncertainty as to whether the rule applies to hydropower facilities. In total, Dominion Energy plans to perform 316(b) studies at 16 facilities to evaluate 316(b) applicability and inform potential compliance strategies. There is a reasonably certain path to reach compliance for the majority of the facilities. Thirteen of the 16 studies have commenced and 9 of the studies have been fully developed (i.e. 81% commenced or completed). Pursuant to the studies and analysis, Dominion Energy has identified 13 facilities that are subject to 316(b). Eight of these facilities are subject to related regulatory uncertainty.

Timeframe
More than 6 years

Magnitude of potential impact
Medium-high

Likelihood
Very likely

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)
10000000

Potential financial impact figure - maximum (currency)
2000000000

Explanation of financial impact
We provide a range of potential financial impact figures. The minimum financial impact is based on the $10 million cost of external consultants to complete the Company's 316(b) studies at 16 power stations (e.g. Clover, Possum Point, VC Summer). We provide the maximum potential financial to demonstrate the estimated potential magnitude of costs for installing new equipment. Section 316(b) of the Clean Water Act (CWA) provides that any standard established by state regulatory agencies pursuant to section 301 or 306 of the CWA and applicable to a point source must require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available (BTA) for minimizing adverse environmental impact. There is a wide range of potential cost for achieving BTA. The total for a nuclear power station with the highest potential costs ranges from zero for minimal operational changes to $2 billion for upgrades to add closed-loop cooling water systems. The need and cost to implement BTA is not known for all stations and will vary by station. For example, Yorktown and Wateree have relatively lower risk of any financial impact. Any new technology requirements will likely be incorporated into discharge permits issued by state regulatory agencies beginning in 2020 and will be installed in accordance with schedules established in those permits.

Primary response to risk
Comply with local regulatory requirements

Description of response
We have been actively preparing for implementation of this regulation for over ten years and have been studying technology to protect fish for decades. For example, Dominion Energy conducted a preliminary study in 2005-2006 at the Chesterfield Power Station. The results of the study were published in the Impingement Mortality and Entrainment Characterization Report, Chesterfield Power Station, June 2005 – May 2006 in August 2007. The report described the Ristroph traveling screens, low pressure wash system, and fish return system used to reduce impingement mortality. The first Ristroph travelling screens were installed at Dominion Power's Surry Station in Virginia in 1977. The existing screen panels were fitted with water-retaining collection buckets at the base of each panel that lifted impinged fish out of the main stream flow as the screens rotated. At the top of the screen assembly, buckets emptied into a collection trough that returned fish to a suitable area in the source waterbody. The initial survival rate for the modified screen at Surry Station, averaged across all species, was 93.3%. In 2019, the Company continued to evaluate the need and/or potential for control measures under the final regulations as these decisions will be made on a case-by-case basis by the state regulatory agency after a thorough review of detailed biological, technology, cost, and benefit studies.

Cost of response
2010000000

Explanation of cost of response
The estimated cost of responses thus far varies by station. Costs of implementation activities are anticipated to range from $40,000 to $3 million per station but could rise to $2 billion for certain stations if upgrades are needed to add closed-loop cooling water systems. The total cost of the response of $2.01 billion accounts for biological studies, economic and engineering studies, and preparation of reports for 16 power stations (e.g. Clover, Possum Point, VC Summer) plus the upper limit estimate for BTA at one station. Estimates generally do not include Dominion Energy personnel costs such as to review reports, coordinate with state environmental agencies, or to perform data collection. These staff costs are embedded in our commitment to meet or exceed environmental requirements. It is not appropriate to sum potential BTA costs for all stations because the need and cost to implement BTA is not known for all stations and will vary by station. Some stations will have little to no costs to meet the BTA requirement.

Country/Area & River basin

United States of America	Other, please specify (Multiple basins: James River, Edisto, Savannah River, Catawba, Santee)

Type of risk & Primary risk driver

Regulatory	Increased difficulty in obtaining withdrawals/operations permit

Primary potential impact
Increased cost of capital

Company-specific description
Our Surry and Gravel Neck power generation facility in the James River Basin can be affected by the regulatory programs, which ensure sustainable groundwater use in the Virginia Eastern Groundwater Management Area. Each time the groundwater withdraw permit is renewed, which is every 10-15 years, the facility's use of groundwater must be evaluated and revisited for its potential impacts to water table levels. Five areas within the state of South Carolina have been designated as Capacity Use Areas (CUA) and groundwater withdrawal permits are required to withdraw and use groundwater if the use is equal to or greater than 3 million gallons in any month. All of the state's capacity use areas are located in the Coastal Plain of South Carolina, the geographic area of the state that is east of the Fall Line. These include river basins where we operate such as Edisto, Savannah River, Catawba, and Santee. Groundwater users who are in designated capacity use areas of the Coastal Plain are required to request a permit to construct and/or operate any well which will use over 3 million gallons in any one month. For example, Cope Power Station is located inside the newly designated "Western Capacity Use Area." When the new CUA was approved, Cope Station had to obtain permits for the groundwater wells it has been operating since 1996. As part of the groundwater permitting process, the South Carolina Department of Health and Environmental Control (SCDHEC) has required Cope Station to restore the surface water withdrawal equipment to operable status. When the surface water withdrawal equipment has been restored, water usage at the station will be a combination of groundwater and surface water. Permits for usage are subject to review and renewal every 5 years.

Timeframe
More than 6 years

Magnitude of potential impact
Medium

Likelihood
About as likely as not

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)
5806000

Potential financial impact figure - maximum (currency)
20000000

Explanation of financial impact
The range of figures representing the potential financial impact reflect possible expenditures in the Virginia Eastern Groundwater Management Area (VEGMA) and the CUAs. The minimum represents permitting costs in the VEGMA and water intake upgrades in the CUA, whereas the maximum represents potential costs to access alternate water supplies in the both VEGMA and the CUA combined. The costs we have incurred for additional studies and permit reissuances ($806,000) in the VEGMA was added to the cost of surface water intake upgrades in the CUA ($5 million). This figure was used as the minimum because it reflects the lowest costs that we will incur. The $806,000 figure is based on costs incurred during the last permit reissuance for Surry and Gravel Neck power stations, which are itemized as follows. During the permit reissuance, we conducted an aquifer test which cost approximately $300,000. In addition, the environmental and engineering consultants' fees were approximately $50,000. The permit reissuance fee was $6,000. Based on the results of the study, we replaced two deep aquifer wells and abandoned three wells which cost approximately $450,000. The additional $5 million contributing to the minimum figure of "$5,806,000" reflects the engineering estimates for the above-described upgrades at the Cope Power Station in the CUA. To estimate the potential cost of an alternate water supply in the VEGMA, capital expenditures were estimated to be the same as recent engineering estimates, which were developed for a comparable, new water treatment system that was to be potentially installed a similar facility ($15 million). Thus, the maximum figure ($20 million) in the range of potential financial impacts, reflects the higher costs that could be incurred to access additional water supplies in both the VEGMA ($15 million) and CUA ($5 million).

Primary response to risk
Engage with regulators/policymakers

Description of response
We have been actively engaged with our state regulators and trade groups who work to implement and evaluate the groundwater withdrawal regulation. We are a member of the Virginia Manufacturers Association (VMA), which had multiple members on the Eastern Virginia Groundwater Management Advisory Committee. The committee assists the Virginia Department of Environmental Quality with evaluating groundwater evaluation planning to inform source protection strategies. In addition, a technical expert from Dominion Energy Environmental Services participates in most of the South Carolina State Water Planning Process Advisory (known as PPAC) meetings.

Cost of response
5806000

Explanation of cost of response
The cost of responding through regulator engagement and trade group participation is essentially zero, because the cost of this engagement is embedded in our strategy for environmental stewardship and compliance. The cost of response reflects the costs incurred during the last permit reissuance for Surry and Gravel Neck stations plus the estimated costs to update a surface water intake at Cope Station. During the permit reissuance for Surry and Gravel Neck, we conducted an aquifer test which cost approximately $300,000. It had to be scheduled during an outage, and the station had to bring in tanks to store water to use for station processes while they were running the test. In addition, the environmental and engineering consultants' fees were approximately $50,000. The permit reissuance fee was $6,000. Based on the results of the study, we replaced two deep aquifer wells and abandoned three wells which cost approximately $450,000. The engineering estimate to restore operation of the Cope Station surface water intake in the Edisto River is $5 million and entails rehabilitation to pumps, lines, and seals. The intakes do have wedge wire screens and the plant operated in closed cycle therefore from an entrainment and impingement standpoint the best technology is in place. For groundwater-related risk in Virginia and South Carolina, the complete cost of response thus far is $5.8 million, which represents estimates for surface water intake upgrades in the Edisto River, South Carolina plus the cost of permitting and supporting studies and upgrades to maintain the groundwater withdrawal in Virginia.

Country/Area & River basin

United States of America	Other, please specify (Multiple River Basins - James, Potomac, Catawba, and Santee rivers)

Type of risk & Primary risk driver

Regulatory	Tighter regulatory standards

Primary potential impact
Increased compliance costs

Company-specific description
In January 2016, the United States Environmental Protection Agency's (EPA's Effluent Limitation Guidelines (ELGs) for the Steam Electric Power Generating Category went into effect. The final rule establishes updated effluent limits and standards for wastewater discharges that apply primarily at coal and oil steam generating stations. Affected facilities are required to convert from wet to dry or closed cycle coal ash management, improve existing wastewater treatment systems, and/or install new wastewater treatment technologies. By modifying our coal combustion residuals (CCR) management to meet the CCR Rule, Dominion Energy was able to eliminate or redirect several wastewaters which required additional treatment requirement predicated by the ELG's and continues to plan for future ELG compliance. Dominion Energy has seven facilities that are subject to additional requirements associated with the 2016 final rule, with the most significant requirements corresponding to additional wastewater treatment affecting the following power stations: Chesterfield in the James River Basin, Mount Storm in the Potomac River Basin, Williams in the Santee River Basin, and Wateree in the Catawba River Basin. In September 2017, the EPA finalized a rule to postpone the date that the existing ELGs become effective for bottom ash transport water and flue gas desulfurization (FGD) to November 2020. In November 2019, the EPA proposed a revised ELG rule that includes changes to proposed effluent limitations and compliance deadlines for FGD wastewater and some allowance for the discharge of bottom ash water (currently prohibited). The proposed rule as written will have impacts on the Company, but it is not possible to determine the full extent of the impacts until the final rule is published. However, we continue to manage coal ash and construct treatment systems to meet the ELG rule. The existing regulatory frameworks in South Carolina and Virginia provide rate recovery mechanisms that could substantially mitigate any such impacts for the regulated electric utilities.

Timeframe
More than 6 years

Magnitude of potential impact
Medium-low

Likelihood
Virtually certain

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

Potential financial impact figure (currency)
415000000

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

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

Explanation of financial impact
The single figure potential financial impact is the cost of mitigating the risk by installing new wastewater treatment. Therefore, the primary financial impact is the cost of response of $415 million. The actions considered in the financial impact were specific for each station and included consideration of the need for: 1) supplemental treatment for existing FGD waste water treatment, 2) conversion of bottom ash system to a recirculating system, 3) dry fly ash handling, 4) closed-loop bottom ash transport water system with treatment, 5) ash pond pH stabilization, and/or 6) best management practices for impoundments.

Primary response to risk
Comply with local regulatory requirements

Description of response
Precipitation has the potential to contact the ash or infiltrate the landfill at Chesterfield Power Station. To capture this liquid, a leachate collection system has been constructed on top of the liner system. This collection system allows any liquid draining through the ash to be collected and properly treated in accordance with ELG regulations. At Mount Storm, the bottom ash system is being converted to a recirculating system to comply with ELG. Williams and Wateree stations will need FGD wastewater treatment systems. Williams will also need modifications to the ash handling system to meet the ash transport water discharge limitations. The ash transport waters associated with this system are heavily co-mingled with other plant wastewater streams and it will be a significant effort to decouple this transport water from other plant streams and minimize discharge.

Cost of response
415000000

Explanation of cost of response
While the impacts of this rule could be material to Dominion Energy results of operations, financial condition and/or cash flows, the existing regulatory frameworks in South Carolina and Virginia provide rate recovery mechanisms that could substantially mitigate any such impacts for the regulated electric utilities. The cumulative cost of adding control measures for the four stations is $415 million. This was calculated by summing the key components installed or being constructed for each station.

W4.2a

(W4.2a) Provide details of risks identified within your value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

United States of America	Other, please specify (Multiple basins in which we operate)

Stage of value chain
Supply chain

Type of risk & Primary risk driver

Physical	Flooding

Primary potential impact
Supply chain disruption

Company-specific description

Flooding can cause transportation disruption for supplies utilized in the electric utility value chain (such as coal mining, coal fuel, biomass fuel, and chemicals). Therefore, there is a risk of having to modify or curtail station operations or seek out alternate suppliers. In 2018, flooding in North Carolina caused a vendor for a specific chemical used to treat NOx to notify power generating facilities, such as Bear Garden, that there could be a disruption in scheduled chemical deliveries. All our power stations run the risk of supply chain disruption due to flooding or similar adverse travel conditions.

Timeframe
1-3 years

Magnitude of potential impact
Medium

Likelihood
Likely

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)
0

Potential financial impact figure - maximum (currency)
5000

Explanation of financial impact
Should flooding occur and cause disruptions in our supply chain, specifically the ability for our power generating stations to receive routine supplies, alternative sources or supplies are obtained or in rare instances, purchasing power from an alternate power generating entity is possible. The cost of fuel and purchased power is generally collected through fuel cost recovery mechanisms established by regulators and does not materially impact net income. In 2018, when a chemical supplier encountered delivery disruption, the cost to procure chemicals from an alternate supplier was on the order of $1000. We estimate that an extreme flooding situation could result in approximately 5 times that cost; up to $5000.

Primary response to risk

Direct operations	Include in Business Continuity Plan

Description of response
Due to diversification of fuels and chemical supplies, as well as maintaining a diverse power generation fleet, the risk of supply chain disruption due to flooding is largely mitigated. Strategy and costs will depend upon the need for alternative supplies or additional infrastructure/filters, which can vary from facility to facility. As part of our business continuity plan in place to mitigate flood-related supply chain disruption risk, power stations such as Bear Garden in the James River Basin strive to stock-up (e.g. top off chemical tanks) to ensure adequate supply whenever weather events are imminent. Once the arrival date of a named storm in known, personnel at power stations such as Bear Garden assess current volumes of chemicals in onsite storage tanks. The team schedules delivery of chemicals to top off the tanks and those deliveries typically are made the next day. The tanks can hold 200 to 3000 gallons of chemicals, depending on the type of chemical. For example, tanks for phosphate hold 200 gallons of 2% phosphate and treated water.

Cost of response
0

Explanation of cost of response
Strategy and costs will depend upon need for alternative supplies or additional infrastructure/filters. The cost of response varies with the magnitude of the flood and the specific facility(ies) impacted by the supply chain disruption. Generally, the cost of contingency planning, such as for extreme weather or emergency events, is embedded in our tradition of extensive planning to ensure we provide safe, reliable and affordable utility service.

Country/Area & River basin

United States of America	Other, please specify (Chowan)

Stage of value chain
Supply chain

Type of risk & Primary risk driver

Regulatory	Increased difficulty in supplier obtaining withdrawals/operations permit

Primary potential impact
Increased production costs due to changing input prices from supplier

Company-specific description
In the Chowan basin, our Southampton power generating facility purchases water from a third-party that withdraws groundwater within the Virginia Eastern Groundwater Management Area. Regulatory controls that limit groundwater withdrawals/operations for the third-party supplier may lead to increasing water costs, which would increase energy production costs for the company facility. For the Southampton power generating facility, the financial impact is anticipated to be $500,000 to $6 million. At a minimum, increased operation and maintenance costs for water treatment would be incurred if existing stormwater resources could be used to replace the lost groundwater resource. The estimate for these costs would be $500,000. The estimate is based on professional judgement of subject matter experts to account for treatment for solids and other stormwater constituents. Costs could rise to potentially approach roughly $6 million to study, design and install a new water intake infrastructure and treatment.

Timeframe
More than 6 years

Magnitude of potential impact
Low

Likelihood

About as likely as not

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)
500000

Potential financial impact figure - maximum (currency)
6000000

Explanation of financial impact
Strategy and costs will depend upon need for alternative supplies or additional infrastructure/filters. For the Southampton power generating facility, the financial impact is anticipated to be $500,000 to $6 million. At a minimum, increased operation and maintenance costs for water treatment would be incurred if existing stormwater resources could be used to replace the lost groundwater resource. The estimate for these costs would be $500,000. The estimate is based on professional judgement of subject matter experts to account for treatment for solids and other stormwater constituents. Costs could rise to potentially approach roughly $6 million to study, design and install a new water intake infrastructure and treatment. This estimate is based on a new water intake structure construction project occurring at a different power station.

Primary response to risk

Upstream	Other, please specify (Alternative supplies or technology)

Description of response
We will maintain allocations for an alternate water supply at our Southampton power generation facility in order to mitigate the potential risk of supplier difficulty in obtaining water withdrawals/ permits. In 2019, Southampton Power Station personnel reported that 318.57 MGL or 26% of the facility's water withdrawals were sourced from groundwater in 2019.

Cost of response
0

Explanation of cost of response
There is no cost to maintain this alternate supply. The current cost of response is permit fees and is insignificant (<1%) of the Company procurement spend, and the future cost would not be considered material, because this potential water supplier issue affects just one power generating facility.

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity
Efficiency

Primary water-related opportunity
Improved water efficiency in operations

Company-specific description & strategy to realize opportunity
Where feasible and appropriate, there is a potential opportunity to explore the use of water efficient or low water intensity generation. Dominion Energy generation has already reduced its water withdrawals by utilizing low water use technologies for new generation and will further reduce water use in the future as we continue to add to our renewable generation portfolio. For example, several power stations (E.g. Warren County Power Station, Brunswick County Power Station, Greensville, Virginia City Hybrid Energy Center or VCHEC) use air cooled condensers rather than traditional once-through cooling systems. Since 2013, we have increased our low water intensity generation from solar from 41 MW to nearly 3,200 MW. This is a strategic opportunity to help Dominion Energy meet our water-related goal of reducing water withdrawals per MWh by 50% from 2000 to 2030. Renewable generation of the future is expected to include utility-scale solar and offshore wind projects. In 2019, Dominion Energy completed the acquisition of various merchant solar projects in North Carolina, South Carolina and Virginia. These projects are expected to cost a total of approximately $425 million once constructed, including the initial acquisition cost, and generate approximately 241 MW combined. Additionally, in 2019, Virginia Power entered into agreements to acquire various solar development projects in Virginia. Four of these projects closed in 2019 and the fifth closed in January 2020 with a total expected cost of approximately $765 million once constructed, including initial acquisition costs, and will generate approximately 448 MW combined. Furthermore, Dominion Energy has created a ten-year plan to transform its electric grid into a smarter, stronger and greener grid. This plan will address the structural limitations of the distribution grid in order to, (i) achieve even higher levels of reliability and resiliency against natural and man-made threats, (ii) leverage technology to enhance operation of the system, and (iii) safely and effectively integrate new utility-scale renewable generation and storage as well as customer–level distributed energy resources such as rooftop solar and battery storage.

Estimated timeframe for realization
4 to 6 years

Magnitude of potential financial impact
Low

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)
600000

Potential financial impact figure – maximum (currency)
900000

Explanation of financial impact
As compared to other Company expenditures such as for fuel and capital improvements, water costs for power generation are generally low. For example, as part of the Company's first quarter 2020 earnings call for investors, Dominion Energy provided an estimate of up to $43 billion of cumulative capital investment between 2020 and 2035 related to renewable energy development including wind and solar-powered electric generation and electric battery storage. However, an estimate of water-cost savings was carried out to provide a general range of the savings for a power generation station generating 800,000 MWh per year. We compared water costs at a more water dependent facility, Bear Garden Power Station, with water costs at Warren Power Station as well as our full suite of solar energy sites. Warren Power Station does not use water for cooling because it employs air cooled condensers rather than wet (conventional) cooling towers used at Bear Garden. Solar sites use little to no water. We estimate that for roughly 800,000 MWh of power generation the Company saves $600,000 to $900,000 by improving water efficiency. These figures were derived by calculating the water cost per MWh at each of the Bear Garden, Warren and the solar sites, then finding the difference between that cost for each when generating 800,000 MWh.

Type of opportunity
Efficiency

Primary water-related opportunity
Cost savings

Company-specific description & strategy to realize opportunity
Our strategy is to continually seek and implement new water efficiencies to align with our water withdrawal reduction target. Our method to align with this target is to capitalize on an opportunity to reuse, reclaim, or recycle water used in the generation of electricity. These opportunities are implemented at certain company facilities, as feasible, because Dominion Energy strives to continually improve environmental performance. For example, at Chesterfield Power Station we reuse greywater from a neighboring publicly owned treatment works (POTW) to remove sulfur dioxide from exhaust flue gases. We have flow monitors to tell us how much water we receive from the POTW. At Clover Power Station, we use cooling tower blowdown water, boiler blowdown, floor drains, and sewage treatment plant discharge as water for the air emissions treatment system. Starting in mid-2018, we began reusing cooling tower blowdown in our spray system used for emissions/air quality management at our Hopewell Power Station. In 2019, the new recycling system saved nearly 32 million gallons of water. Further opportunities for water reuse and reclamation are continually evaluated and may become available. Facility decisions, however, are highly site-dependent and include numerous other factors in addition to water use. Water reuse and reclamation would allow for facilities to be resilient in the event of regulatory changes that restrict the use of water withdrawals.

Estimated timeframe for realization
4 to 6 years

Magnitude of potential financial impact
Low

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)
4230000

Potential financial impact figure – maximum (currency)
5355000

Explanation of financial impact
The estimated financial impact reflects the cost that could be incurred if the Company had to purchase water for certain facilities that currently track and use greywater or recycled water. Based on the range of water costs at Bellemeade and Hopewell power stations, we estimated the potential range in savings the Company may be realizing by using greywater for Chesterfield Power Station to be between $975,000 and $2.1 million. We concluded this by calculating the per gallon water cost and multiplying by the gallons of greywater used at Chesterfield (415,000,000 gallons per year). In addition, we estimated the potential financial savings for the water we recycled in 2019 at stations that measure their water recycling, including Altavista, Bear Garden, Hopewell, Jasper, Possum, Warren County, Virginia City Hybrid Energy Center, Surry, and Gravel Neck power stations. Millstone, North Anna, Mt. Storm, and Williams stations also recycle cooling water, but are not included in the estimate. North Anna and Mt. Storm utilize large Company-owned reservoirs and are not likely to purchase water in-lieu of recycling. Millstone's Unit 3 and Williams recycle large volumes, and it would not be realistic to purchase the water in-lieu of recycling. The eight stations listed above recycled almost 614 million gallons in 2019. By multiplying the average purchase price per gallon at other power stations by the number of gallons recycled, we estimate a potential savings of $3.25 million. Therefore, to estimate the potential financial impact from water efficiency, we added savings from greywater use to recycling savings, and we report the range of savings is between $4.23 and $5.35 million.

Type of opportunity
Markets

Primary water-related opportunity
Strengthened social license to operate

Company-specific description & strategy to realize opportunity
We publish water use metrics and data on the company website and through our annual Sustainability and Corporate Responsibility Report. In our latest 2017-2018 Sustainability & Corporate Responsibility Report, Dominion Energy reported the level of freshwater withdrawn to produce power at a rate of 0.000074 billion liters per MWh of generation, which is approximately 47% lower than the rate in 2000. Our 2019 water metrics will be published once the 2018-2019 Sustainability & Corporate Responsibility Report is released later this year. We are also participating in the Edison Electric Institute Environmental Social Governance (EEI ESG)/Sustainability Metrics Pilot, which provides additional disclosures on water use and intensity for our generation assets. This opportunity to publish water-related metrics online and participate in other water-related disclosures is considered strategic for our company. It expresses our commitment to transparency and environmental stewardship to our stakeholders, which may strengthen our social license to operate, as well as potentially change in the determination of investors to buy and hold Dominion Energy securities.

Estimated timeframe for realization
Current - up to 1 year

Magnitude of potential financial impact
Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

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

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

Explanation of financial impact
Water footprinting a business leads to an increased ability to report water metrics and water-related information to key stakeholders. Because of stakeholder interest in our coal ash pond closures, we post water quality analysis results of our treated discharges to our website. We are committed to water stewardship and water security. We look for opportunities to use less water— and to reuse what we do use to help preserve adequate quantities of acceptable, quality water for the communities where we operate and the surrounding ecosystems.

Type of opportunity
Markets

Primary water-related opportunity
Improved community relations

Company-specific description & strategy to realize opportunity
While Dominion Energy makes the transition of its energy business to net zero, the Company will be intentional about listening to all perspectives and considering the interests of all our stakeholders. Dominion Energy's robust system of community engagement (including tribal engagement) and its formal policy on environmental justice are meant to ensure that nobody is left behind as we advance our vision of a clean and sustainable energy future. Water-related issues provide opportunities for community leadership, volunteerism and local level stakeholder engagement. We regularly engage communities when siting large infrastructure projects and new power stations, we hold public meetings, and we engage landowners. We consider this opportunity to be strategically important because we recognize that there are potential cost savings by fully vetting plans with communities and making the most informed siting decisions for new construction. Furthermore, we utilize this opportunity in alignment with our commitment to provide reliable, affordable, clean energy in accordance with our values of safety, ethics, excellence, embrace change and teamwork. These values are demonstrated continuously through our daily focus on safety, teamwork, embracing change and ethics, but also through volunteer projects. For example, Dominion Energy's Putting Our Energy to Work for the Environment Program allows employees to volunteer their time to partner with environmental organizations on hands-on projects. In addition, Dominion Energy engages the communities where we operate through investments in environmental causes and charitable giving. In 2019, Dominion Energy donated nearly $3 million to environmental causes. A significant portion of that investment, $1.6 million, was awarded to community organizations through the Dominion Energy Charitable Foundation, the philanthropic arm of the company.

Estimated timeframe for realization
Current - up to 1 year

Magnitude of potential financial impact
Low-medium

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)
0

Potential financial impact figure – maximum (currency)
1600000

Explanation of financial impact
In 2019, the Dominion Energy Charitable Foundation made grants totaling $1.6 million to support environmental stewardship and education. To roughly reflect the magnitude of the financial impact from community engagement, we provide the potential range of environmental engagement grants from zero to $1.6 million as a general representation of direct financial investment in communities. Thirty-five community water-related grants totaling nearly $475,000 were provided. For example, $25,000 went to support the James River Outdoor Coalition in the development of accessible boat ramps. Additionally, Dominion Energy has existing partnerships with the Western Reserve Land Conservancy in Ohio and the Western Pennsylvania Conservancy in launching mini-grants programs for water-related improvements. For example, $5,500 was provided to the Friends of Lower Lake Habitat Project to purchase and plant native shrubs and plantings. To date, Dominion Energy and the Western Reserve Land Conservancy have awarded more than $142,000 to 38 different watershed groups since its inception. The Western Pennsylvania Conservancy and Dominion Energy have awarded over $400,000 in grants since the inception. Each year, Dominion Energy sponsors “Dominion Energy Riverrock,” the United States’ largest outdoor sports and music festival on the James River in Richmond, Virginia. The potential financial impact is zero as we are focusing on improving community relations, rather than a defined monetary impact.

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number
Facility 1

Facility name (optional)
Bath County Pumped Storage

Country/Area & River basin

United States of America	James River

Latitude
38.23

Longitude
-79.82

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Hydropower

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
55902.64

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
55887.6456

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
14.990184

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
55024.38

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
55024.38513

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
878.25

Comparison of total consumption with previous reporting year
Higher

Please explain
The Bath County Pumped Storage Station reported higher total water withdrawals, higher total water discharges, and higher total water consumption compared to the previous year. The station consists of two large reservoirs and pumps water from the lower reservoir to the upper reservoir when demand is low and release the water back to the lower reservoir when demand is high. The more the station is in operation corresponds to higher total withdrawals and higher total discharges, which likely means the station operated more in 2019 compared to 2018.

Facility reference number
Facility 2

Facility name (optional)
Bear Garden Power Station

Country/Area & River basin

United States of America	James River

Latitude
37.69

Longitude
-78.29

Located in area with water stress

No

Primary power generation source for your electricity generation at this facility
Gas

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
3120.07

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0.908496

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
3119.1696

Total water discharges at this facility (megaliters/year)
396.81

Comparison of total discharges with previous reporting year
Much lower

Discharges to fresh surface water
396.8196966

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
2723.25

Comparison of total consumption with previous reporting year
About the same

Please explain
The Bear Garden Power Station reported about the same total water withdrawal volume, much lower total discharge volume, and about the same total consumption volumes compared to the previous reporting year. In 2018, Bear Garden Power reported rainwater and stormwater discharges as part of their total discharge volume, which partially explains why the 2019 total discharge is much lower in comparison.

Facility reference number
Facility 3

Facility name (optional)
Bremo Power Station

Country/Area & River basin

United States of America	James River

Latitude
37.71

Longitude
-78.29

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Gas

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
46.23

Comparison of total withdrawals with previous reporting year

Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
37.778292

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
5.602392

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
2.8504062

Total water discharges at this facility (megaliters/year)
37.77

Comparison of total discharges with previous reporting year
Much lower

Discharges to fresh surface water
37.778

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
8.45

Comparison of total consumption with previous reporting year
Much lower

Please explain
The Bremo Power Station reported much lower total water withdrawal volume, much lower total discharge volume, and much lower total consumption volumes compared to the previous reporting year. Bremo Power Station was placed in cold reserve and did not generate power in 2019. All withdrawals are related to dust suppression for coal ash projects and sanitary uses, which accounts for the much lower withdrawals, discharges, and consumption.

Facility reference number
Facility 4

Facility name (optional)
Brunswick Power Station

Country/Area & River basin

United States of America	Other, please specify (Chowan)

Latitude
36.76

Longitude
-77.71

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Gas

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
232.46

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
232.461414

Total water discharges at this facility (megaliters/year)
107.08

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
107.088966

Total water consumption at this facility (megaliters/year)
125.37

Comparison of total consumption with previous reporting year
About the same

Please explain
The Brunswick Power Station reported about the same total water withdrawal volume, about the same total discharge volume, and about the same total consumption volumes compared to the previous reporting year.

Facility reference number
Facility 5

Facility name (optional)
Chesapeake Energy Center

Country/Area & River basin

United States of America	James River

Latitude
36.77

Longitude
-76.3

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Gas

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
0

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
The Chesapeake Energy Center is no longer in service and therefore reported about the same total water withdrawal volume, about the same total discharge volume, and about the same total consumption volumes compared to the previous reporting year. Non-potable water is used on-site (not gauged or metered) for limited toilet use and fire water (i.e. in case of fire). Drinking water is bottled.

Facility reference number
Facility 6

Facility name (optional)
Chesterfield Power Station

Country/Area & River basin

United States of America	James River

Latitude
37.38

Longitude
-77.38

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Gas

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
635906.24

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
633937.1526

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
1969.089372

Total water discharges at this facility (megaliters/year)
637756.28

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
637756.2805

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
-1850.03

Comparison of total consumption with previous reporting year
About the same

Please explain
The Chesterfield Power Station reported about the same total water withdrawal volume, about the same total discharge volume, and about the same total consumption volumes as compared to the previous reporting year.

Facility reference number
Facility 7

Facility name (optional)
Clover Power Station

Country/Area & River basin

United States of America	Roanoke River

Latitude
36.87

Longitude
-78.7

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
Coal - hard

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
1953.81

Comparison of total withdrawals with previous reporting year
Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
1950.80589

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
3.01355694

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
1231.27

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water
1231.231633

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0.0454248

Total water consumption at this facility (megaliters/year)
722.54

Comparison of total consumption with previous reporting year
Much lower

Please explain
The Clover Power Station reported much lower total water withdrawal volume, lower total discharge volume, and much lower total consumption volumes compared to the previous reporting year. Clover Power Station generated about half the amount of power in 2019 compared to 2018, which explains the lower water withdrawal, water

discharge and water consumption volumes in 2019.

Facility reference number
Facility 8

Facility name (optional)
Gaston Hydro Power Station

Country/Area & River basin

United States of America	Roanoke River

Latitude
36.25

Longitude
-77.66

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
Hydropower

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
0

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
The Gaston Power Station reported about the same total water withdrawal volume, about the same total discharge volume, and about the same total consumption volumes compared to the previous reporting year.

Facility reference number
Facility 9

Facility name (optional)
Gordonsville Power Station

Country/Area & River basin

United States of America	Other, please specify (York)

Latitude
38.12

Longitude
-78.2

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Gas

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
70.86

Comparison of total withdrawals with previous reporting year
Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
34.87946675

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
35.9877978

Total water discharges at this facility (megaliters/year)
17.8

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
17.79138

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0.0094635

Total water consumption at this facility (megaliters/year)
53.06

Comparison of total consumption with previous reporting year
Lower

Please explain
The Gordonsville Power Station reported lower total water withdrawals, about the same total water discharges, and lower total water consumption compared to the previous year. Gordonsville Power Station installed a meter and started tracking supplemental cooling, which raised awareness on how much water was being used and helped reduce overall usage.

Facility reference number
Facility 10

Facility name (optional)
Greensville County Power Station

Country/Area & River basin

United States of America	Other, please specify (Chowan)

Latitude
36.72

Longitude
-77.65

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Gas

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
353.82

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
353.821338

Total water discharges at this facility (megaliters/year)
159.55

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
159.55461

Total water consumption at this facility (megaliters/year)
194.26

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain
The Greensville Power Station became operational in December 2018. Therefore, total water withdrawal volume, total discharge volume, and total consumption volumes cannot be compared to the previous reporting year. Also, we would expect future volumes of water withdrawal, discharge and consumption to be "much higher" as compared to the current year, because 2018 consisted of less than one month of operation and therefore less than one month of water use.

Facility reference number
Facility 11

Facility name (optional)
Ladysmith Power Station

Country/Area & River basin

United States of America	Other, please specify (York)

Latitude
38.07

Longitude
-77.51

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Gas

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
5.67

Comparison of total withdrawals with previous reporting year
Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
5.6781

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
5.67

Comparison of total consumption with previous reporting year
Much lower

Please explain
The Ladysmith Power station reported much lower total water withdrawals, about the same water discharge, and much lower total water consumption. Ladysmith is a no discharge facility and total discharge volume is not expected to fluctuate regardless of precipitation, or amount of power generated. Ladysmith Power Station generated less power in 2019 compared to 2018, which may in part explain the lower level of water usage.

Facility reference number
Facility 12

Facility name (optional)
Millstone Nuclear Station

Country/Area & River basin

United States of America	Other, please specify (Long Island Sound)

Latitude
41.31

Longitude
-72.17

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Nuclear

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
2547937.35

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
443.346048

Withdrawals from brackish surface water/seawater
2547059.386

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
434.6244864

Total water discharges at this facility (megaliters/year)
2552866.25

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
23.11213824

Discharges to brackish surface water/seawater
2552841.054

Discharges to groundwater
0

Discharges to third party destinations
2.0895408

Total water consumption at this facility (megaliters/year)
-4928.9

Comparison of total consumption with previous reporting year
About the same

Please explain
The Millstone Power Station reported about the same total water withdrawal volume, about the same total discharge volume, and about the same total consumption volumes compared to the previous reporting year.

Facility reference number
Facility 13

Facility name (optional)
Mount Storm Power Station

Country/Area & River basin

United States of America	Potomac River

Latitude
39.2

Longitude
-79.27

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Coal - hard

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
1271608.52

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
1271597.095

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
11.431908

Total water discharges at this facility (megaliters/year)
1420296.42

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
1420296.427

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
-148687.9

Comparison of total consumption with previous reporting year
Much lower

Please explain
The Mount Storm Power Station reported about the same total water withdrawal volume, much higher total discharge volume, and much lower total consumption volumes compared to the previous reporting year. The Mount Storm facility includes Mount Storm lake. A relatively small amount of municipal water is used at the power station, as well. Except for the relatively small amount of water consumed, the remaining water is discharged to the lake and reused by the facility. The discharge amount does not reflect discharges to the lake, because the lake is completely within the facility boundary.

Facility reference number
Facility 14

Facility name (optional)
North Anna Nuclear Station

Country/Area & River basin

United States of America	Other, please specify (York)

Latitude
38.06

Longitude
-77.79

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Nuclear

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
2191770.09

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
2191761.835

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
8.26125696

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
2192579.57

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
2192579.57

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)

-809.47

Comparison of total consumption with previous reporting year
About the same

Please explain
The North Anna Nuclear Station reported about the same volume of total water withdrawals, about the same total water discharges, and about the same total water consumption as compared to the previous reporting year.

Facility reference number
Facility 15

Facility name (optional)
Possum Point Power Station

Country/Area & River basin

United States of America	Potomac River

Latitude
38.55

Longitude
-77.29

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Gas

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
48860.42

Comparison of total withdrawals with previous reporting year
Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
48797.5914

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
62.83764

Total water discharges at this facility (megaliters/year)
51211.01

Comparison of total discharges with previous reporting year
Much lower

Discharges to fresh surface water
51205.1058

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
5.905224

Total water consumption at this facility (megaliters/year)
-2350.58

Comparison of total consumption with previous reporting year
Much lower

Please explain
The Possum Point Power Station reported much lower total water withdrawal volume, much lower total discharge volume, and much lower total consumption volumes compared to the previous reporting year.

Facility reference number
Facility 16

Facility name (optional)
Roanoke Rapids Power Station

Country/Area & River basin

United States of America	Roanoke River

Latitude
36.48

Longitude
-77.64

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
Hydropower

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
0.18

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0.18

Comparison of total consumption with previous reporting year
About the same

Please explain
The Roanoke Rapids Power Station reported about the same total water withdrawal volume, about the same total discharge volume, and about the same total consumption volumes compared to the previous reporting year. The employees managing Roanoke Rapids station also oversee the Gaston Hydro Power Station.

Facility reference number
Facility 17

Facility name (optional)
Southampton Power Station

Country/Area & River basin

United States of America	Other, please specify (Chowan)

Latitude
36.65

Longitude

-77

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Biomass

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
1202.01

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
883.436652

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
318.579264

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
1202.01

Comparison of total consumption with previous reporting year
About the same

Please explain
The Southampton Power Station reported about the same total water withdrawal volume, about the same total discharge volume, and about the same total consumption volumes compared to the previous reporting year.

Facility reference number
Facility 18

Facility name (optional)
Surry Nuclear Station

Country/Area & River basin

United States of America	James River

Latitude
37.17

Longitude
-76.7

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Nuclear

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
2656182.27

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
2655171.379

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
506.940768

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
503.9578728

Total water discharges at this facility (megaliters/year)
2509451.22

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
2509451.225

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
146731.05

Comparison of total consumption with previous reporting year
Much higher

Please explain
The Surry Nuclear Station and Gravel Neck Power Station reported about the same total water withdrawal volume, about the same total discharge volume, and much higher total consumption volumes compared to the previous reporting year.

Facility reference number
Facility 19

Facility name (optional)
Virginia City Hybrid Energy Center (VCHEC)

Country/Area & River basin

United States of America	Other, please specify (Clinch)

Latitude
36.92

Longitude
-82.34

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Coal - hard

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
890.7

Comparison of total withdrawals with previous reporting year
Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
890.32608

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0.37854

Total water discharges at this facility (megaliters/year)
1447.53

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
1445.64426

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
1.8927

Total water consumption at this facility (megaliters/year)
-556.83

Comparison of total consumption with previous reporting year
Much lower

Please explain
The Virginia City Hybrid Energy Center reported lower total water withdrawal volume, about the same total discharge volume, and much lower total consumption volumes compared to the previous reporting year.

Facility reference number
Facility 20

Facility name (optional)
Warren County Power Station

Country/Area & River basin

United States of America	Potomac River

Latitude
38.97

Longitude
-78.18

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Gas

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
195.57

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
195.572691

Total water discharges at this facility (megaliters/year)
64.09

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
64.0981782

Total water consumption at this facility (megaliters/year)
131.47

Comparison of total consumption with previous reporting year
About the same

Please explain
The Warren County Power Station reported about the same total water withdrawal volume, about the same total discharge volume, and about the same total consumption volumes compared to the previous reporting year. The station has been emphasizing water conservation and has reduced water purchases substantially in the past year. The station has a water recycling system that is used for process water and future total water consumption is expected to decrease as the system and staff awareness of conservation opportunities grow.

Facility reference number
Facility 21

Facility name (optional)
Columbia Energy Center

Country/Area & River basin

United States of America	Other, please specify (Congaree)

Latitude
33.87

Longitude
-81.02

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Gas

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
3308.71

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
3308.71972

Total water discharges at this facility (megaliters/year)
600.48

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater

0

Discharges to third party destinations
600.4893582

Total water consumption at this facility (megaliters/year)
2708.23

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain
Columbia Energy Center was acquired as part of Dominion Energy's fleet in 2019 based on their merger with SCANA, thus this is our first year reporting its water information.

Facility reference number
Facility 22

Facility name (optional)
Cope Station

Country/Area & River basin

United States of America	Other, please specify (Edisto)

Latitude
33.37

Longitude
-81.03

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Coal - hard

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
3922.16

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
3922.166502

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
1377.05

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
1377.05849

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
2545.1

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain
Cope Station was acquired as part of Dominion Energy's fleet in 2019 based on their merger with SCANA, thus this is our first year reporting its water information.

Facility reference number
Facility 23

Facility name (optional)
Fairfield Pumped/Storage

Country/Area & River basin

United States of America	Other, please specify (Broad)

Latitude
34.31

Longitude
-81.33

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Hydropower

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
4159469.29

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
4159469.291

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
4159469.29

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
4159469.291

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain
Fairfield Pumped Storage was acquired as part of Dominion Energy's fleet in 2019 based on their merger with SCANA, thus this is our first year reporting its water information.

Facility reference number
Facility 24

Facility name (optional)
Gravelneck Power Station

Country/Area & River basin

United States of America	James River

Latitude
37.16

Longitude
-76.7

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Gas

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
0

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
The Gravelneck Power Station reported about the same total water withdrawal volume, about the same total discharge volume, and about the same total consumption volumes compared to the previous reporting year.

Facility reference number
Facility 25

Facility name (optional)
Neals Shoals Hydro

Country/Area & River basin

United States of America	Other, please specify (Broad River)

Latitude
34.66

Longitude
-81.45

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Hydropower

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
1101322.27

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
1101322.27

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
1101322.27

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
1101322.27

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain
Neal Shoals Hydro Station was acquired as part of Dominion Energy's fleet in 2019 based on their merger with SCANA, thus this is our first year reporting its water information.

Facility reference number
Facility 26

Facility name (optional)
Parr Hydro

Country/Area & River basin

United States of America	Other, please specify (Broad River)

Latitude
34.26

Longitude
-81.33

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Hydropower

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
1954679.03

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
1954679.036

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
1954679.03

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
1954679.036

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain
Parr Hydro Station was acquired as part of Dominion Energy's fleet in 2019 based on their merger with SCANA, thus this is our first year reporting its water information.

Facility reference number
Facility 27

Facility name (optional)
Saluda Hydro

Country/Area & River basin

United States of America	Other, please specify (Saluda River)

Latitude
34.05

Longitude
-81.21

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Hydropower

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
1120916.33

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
1120916.333

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
1120916.33

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
1120916.333

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain
Saluda Hydro Station was acquired as part of Dominion Energy's fleet in 2019 based on their merger with SCANA, thus this is our first year reporting its water information.

Facility reference number
Facility 28

Facility name (optional)
Stevens Creek Hydro

Country/Area & River basin

United States of America	Savannah River

Latitude
33.56

Longitude
-82.05

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Hydropower

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
4527385.45

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
4527385.453

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
4527385.45

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
4527385.453

Discharges to brackish surface water/seawater
0

Discharges to groundwater

0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain
Stevens Creek Hydro Station was acquired as part of Dominion Energy's fleet in 2019 based on their merger with SCANA, thus this is our first year reporting its water information.

Facility reference number
Facility 29

Facility name (optional)
Urquhart Station

Country/Area & River basin

United States of America	Savannah River

Latitude
33.43

Longitude
-81.91

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Gas

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
106860.85

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
106845.1862

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
15.67004184

Total water discharges at this facility (megaliters/year)
102493.37

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
102493.3768

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
4367.47

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain
Urquhart Station was acquired as part of Dominion Energy's fleet in 2019 based on their merger with SCANA, thus this is our first year reporting its water information.

Facility reference number
Facility 30

Facility name (optional)
Wateree

Country/Area & River basin

United States of America	Other, please specify (Catawba)

Latitude
33.83

Longitude
-80.62

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Coal - hard

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
11992.63

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
11111.43604

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
881.203266

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
2764.92

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
2764.920512

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
9227.71

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain
Wateree Station was acquired as part of Dominion Energy's fleet in 2019 based on their merger with SCANA, thus this is our first year reporting its water information.

Facility reference number
Facility 32

Facility name (optional)
Williams Station

Country/Area & River basin

United States of America	Santee River

Latitude
33.02

Longitude
-79.93

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Coal - hard

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
536758.44

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
536739.4368

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
19.01179296

Total water discharges at this facility (megaliters/year)
545167.17

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
545167.1757

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
-8408.72

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain
Williams Station was acquired as part of Dominion Energy's fleet in 2019 based on their merger with SCANA, thus this is our first year reporting its water information.

Facility reference number
Facility 33

Facility name (optional)
Hagood Station

Country/Area & River basin

United States of America	Santee River

Latitude
32.83

Longitude
-79.96

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Gas

Oil & gas sector business division
Not applicable

Total water withdrawals at this facility (megaliters/year)
1.04

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
1.043

Total water discharges at this facility (megaliters/year)
0.36

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0.368851

Total water consumption at this facility (megaliters/year)
0.67

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain
Hagood Station was acquired as part of Dominion Energy's fleet in 2019 based on their merger with SCANA, thus this is our first year reporting its water information.

W5.1a

(W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been externally verified?

Water withdrawals – total volumes

% verified
1-25

What standard and methodology was used?
External verification of water data is the decision of each individual facility; for a number of facilities, including the Bear Garden power station, third-party water suppliers additionally verify water volumes sent to the station.

Water withdrawals – volume by source

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water withdrawals – quality

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water discharges – total volumes

% verified
1-25

What standard and methodology was used?
External verification of water data is the decision of each individual facility; just as with total water withdrawal volume, a number of facilities get external verification from third-party discharge destinations themselves.

Water discharges – volume by destination

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water discharges – volume by treatment method

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water discharge quality – quality by standard effluent parameters

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water discharge quality – temperature

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water consumption – total volume

% verified
1-25

What standard and methodology was used?
External verification of water data is the decision of each individual facility. Just as with total water withdrawal volume and total water discharge volume, total water consumption is verified by a few facilities.

Water recycled/reused

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy that is publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

	Scope	Content	Please explain
Row 1	Company-wide	Description of water-related standards for procurement Company water targets and goals Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Acknowledgement of the human right to water and sanitation	The Dominion Energy Environmental Policy Statement (Policy Statement) articulates that Dominion Energy is fully committed to meeting its customers' energy needs in an environmentally responsible and proactive manner. The Policy Statement includes water target, water use, innovation, and regulatory compliance commitments. We commit to water targets to use less water as we transform our fleet to lower carbon and provide natural gas to our customers, and to protect waterways near our operations. We make a commitment to water stewardship because as we produce energy, our stakeholders expect efficient use of water resources. We commit to innovation, which may include water-related innovation, because our ability to innovate has a substantial effect on our financial strength, our ability to meet evolving customer expectations, and the degree to which we affect the communities we serve and the natural environment. We aim to meet or go above and beyond basic obligations to comply with applicable environmental laws and regulations. We do this to protect waterways and support communities we serve. In 2018, the Company adopted an Environmental Justice Policy to guide our work in this area: To ensure fair treatment and sincere involvement, we take an intentional approach to seeking out and listening to a diversity of views. To meet this commitment, we encourage stakeholder awareness and education through public meetings, direct outreach, and by making Company information publicly available on our webpages. We also strive to strengthen communities in other ways. Through our Dominion Energy Charitable Foundation, we endeavor to improve the physical, social, and economic well-being of the communities served by Dominion Energy. In 2019, we established the Contractor/Supplier Environmental Qualification Policy, because we are committed to hold contractors accountable for their environmental performance. Our water-related standard for procurement under this policy causes a contractor with any reportable environmental event or violation, including those associated with water quality, to obtain executive-level evaluation and approval prior to contracting. These policy statements are company-wide because it is our duty to protect natural and cultural resources, and to ensure that communities have a meaningful voice in our planning and development processes. These are good business practices throughout the entire organization.

W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Chief Executive Officer (CEO)	In addition to his responsibilities as a Chairman of the Board of Directors, the CEO, along with the Company's senior officers (including the Co-Chief Operating Officers) oversee the company's environmental performance and sustainability initiatives, which include water-related issues. Certain water-related issues are an inherent part of the CEO's responsibilities, and are highly pertinent to the company's operations, including environmental compliance, financial performance and long-term strategy as a sustainable organization and responsible corporate citizen. For example, in July 2020, with guidance from the CEO and senior leadership, the Board of Directors, which includes our CEO as Chairman, approved the decision to cancel the Atlantic Coast Pipeline project due to, among other things, an unacceptable layer of uncertainty and anticipated delays attributed, in part, to judicial outcomes on federal permit authority for waterbody and wetland crossings.
Other, please specify (Board of Directors & Board Sustainability and Corporate Responsibility Committee)	Dominion Energy's Board of Directors and its committees (the Board) oversee environmental performance and sustainability initiatives, including water-related issues. The Sustainability and Corporate Responsibility (SCR) Committee, comprised entirely of independent Directors, assists the Board in its oversight of Company performance as a sustainable organization and responsible corporate citizen by: • Overseeing strategies, activities and policies regarding environmental sustainability, corporate social responsibility, public issues of significance and related innovation matters that may affect our stakeholders; • Reviewing sustainability and corporate responsibility reports and other significant communications and reporting to stakeholders on environmental and social responsibility initiatives and activities; • Reviewing company sustainability targets and progress reports in achieving those commitments; and •Overseeing initiatives to support innovation, technology and sustainability.

W6.2b

(W6.2b) Provide further details on the board's oversight of water-related issues.

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Overseeing acquisitions and divestiture Overseeing major capital expenditures Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities	Dominion Energy's Board of Directors and its committees (the Board) oversee environmental performance and sustainability initiatives, including water-related issues, and the 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 embedded in its continuous governance activities throughout the year, including: • Oversight of the long-term financial plan, which is updated in a process that dovetails with annual corporate and business unit risk assessments; •Semi-annual planning retreats; • Review of safety, sustainability, workforce development, diversity, and innovation initiatives; • Regular public policy updates, including customer and public opinion research; and • Oversight of the Ethics & Compliance program, which is tasked with reinforcing the company's strong ethical culture. Key areas of 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 processes and an effective internal control environment that facilitates the identification, management, and mitigation of risks and regular communication with the Board. In addition, our enterprise risk management program (ERM) identifies operational, financial, strategic, compliance, and reputational risks that could adversely affect the execution of the company's business model. Our CEO and the Board have oversight for water-related opportunities with potential to have substantive financial or strategic impact on the company. The Innovation, Technology and Sustainability Council, led by the CEO, was formed to ensure collaboration on sustainability initiatives. The company's ESG Committee, comprised of employees from different business units, serves as a strategic partner to senior leadership on environmental, corporate and social responsibility initiatives. Board-level oversight is achieved through the Sustainability and Corporate Responsibility (SCR) Committee which is comprised entirely of independent directors. The SCR Committee generally reviews environmental, social, and reputational matters that may affect our business and performance and other stakeholder groups at every regularly scheduled meeting. The Board reviews the company's budget and capital expenditure plan on an annual basis. In 2019, the Board met 8 times and the SCR Committee met 3 times.

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)
Chief Risk Officer (CRO)

Responsibility
Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues
Quarterly

Please explain
The Chief Risk Officer, who reports directly to the Chief Financial Officer, considers water-related issues on an ongoing basis as part of the enterprise risk management process, as well as during review of quarterly financial regulatory filings. For example, the CRO reports to the Board's Finance and Risk Oversight Committee on key risks, which include coal ash remediation, associated coal ash (CCR) pond closures, and environmental compliance risk. These matters are highly pertinent to the company's operations, including environmental (compliance, recent regulatory and legislative developments, and projects), safety, employees, customers, security (including cyber), financial performance and long-term strategy of building a clean and sustainable energy future. The Company has made expenditures to close ash ponds through activities such as excavating certain ash ponds, implementing water quality and quantity controls, and transporting CCR to landfills.

Name of the position(s) and/or committee(s)
Chief Operating Officer (COO)

Responsibility
Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues
Annually

Please explain
The Executive Vice President (EVP) and Co-Chief Operating Officers (Co-COOs), who report directly to the CEO, consider water-related issues on an ongoing basis and engage the Board and Board committees on water-related issues at least annually. For example, in 2019 a report was made to the Board on continued assessment and planning for the closure of coal ash ponds at power generation facilities. This report was reviewed by the business unit CEO, who became COO in December of 2019. These matters are highly pertinent to the company's operations, including environmental (compliance, recent regulatory and legislative developments, and projects), safety, employees, customers, security (including cyber), financial performance and long-term strategy of building a clean and sustainable energy future.

Name of the position(s) and/or committee(s)
Chief Executive Officer (CEO)

Responsibility
Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues
As important matters arise

Please explain
The CEO considers water-related issues on an ongoing basis through quarterly earnings calls, shareholder engagement, and as part of his role in overseeing the business segment leaders and company officers. For example, during the 2019 fourth quarter earnings call, the CEO updated shareholders and other participants regarding progress to identify a location to construct a new pumped-storage hydropower facility in Southwest Virginia, because this and other zero-carbon generation projects are highly pertinent to the Company's long-term strategy as a sustainable organization. Business segment leaders oversee critical management and planning for water-related issues, which are discussed with the CEO. In 2018, a goal for the CEO was to increase investor communications related to sustainability and targets. The threshold for success was completion of engagement activities. To meet this goal, the CEO engaged with stakeholders on ESG related initiatives, including water-related issues.

Name of the position(s) and/or committee(s)
Other C-Suite Officer, please specify (Executive Vice President (EVP) and Chief of Staff; Senior Vice President – Corporate Affairs & Communications; Senior Vice President, General Counsel and Chief Compliance Officer; and Chief Environmental Officer)

Responsibility
Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues
Annually

Please explain
Several additional officers who reported directly to the CEO held responsibilities for water-related issues and in 2019 reported to the Board on water-related issues as at least annually. They include, (i) EVP and Chief of Staff; (ii) Senior Vice President – Corporate Affairs & Communications; and (iii) Senior Vice President and General Counsel. Each Business Segment President and the Chief Environmental Officer also have the responsibility for helping to develop and implement water-related strategies and managing related risks and opportunities on an ongoing basis. For example, the Chief Environmental Officer's Report in 2019 included points on a Waste Transport and Disposal Sprint team.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

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

W6.4a

(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Operating Officer (COO) Other, please specify (All Dominion Energy employees)	Implementation of employee awareness campaign or training program Other, please specify (Track REEs to enhance current processes with goal to improve pollution prevention)	Dominion Energy's Annual Incentive Plan ("AIP") provides a monetary reward to eligible employees, including C-suite officers, based on the achievement of annual Company financial, business unit financials and individual operating and stewardship goals. All employees, including C-suite officers, who participate in the 2019 AIP have a portion of their 2019 AIP payout tied to the accomplishment of environmental goals which may be linked to water stewardship directly or indirectly. For the 2019 year, an AIP environmental goal for the Chief Executive Officer, Chief Financial Officer and Co-Chief Operating Officers was that 95% of employees would complete companywide training to improve employees' (including leaders) knowledge, understanding and importance of the enhanced Environmental Management System (EMS). Implementation of this training program was incentivized because it is important for all employees and leaders to understand the Company's system for environmental compliance. COOs had an additional environmental goal to track and comply with Operating Unit specific Reportable Environmental Events limits. A COO had an additional goal that was tied to completion of environmental initiatives, including water-related initiatives. Approximately 90% of the CEO's targets 2019 total direct compensation was performance-based; tied to pre-approved performance metrics or tied to the performance of Company stock.
Non-monetary reward	Other, please specify (All Dominion Energy employees)	Other, please specify (Dominion Energy IdeAS)	The Dominion Energy IDeAS program (short for Innovation, Development and Solutions), Chairman's Excellence awards, as well as the Volunteer of the Year awards 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 2019, the Innovation Spark Tank program recognized a finalist who came up with an idea to save water at the Surry Power Station by changing chemicals used in the water treatment process. A Chairman's Excellence awardee was recognized for an innovative idea to redesign combustion and environmental systems for Chesterfield Power Station units 5 and 6. IDeAS and Chairman's Excellence participants are recognized in various ways. Participants may be given the opportunity to pitch ideas, participate in an Innovation Expo, and receive coaching and mentorship. Volunteers of the Year are typically recognized at an annual expo and on the company web site. These employees pay it forward with a donation from the company's Charitable Foundation to their non-profit of choice.

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

Yes, direct engagement with policy makers

Yes, trade associations

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

Dominion Energy has a clear and consistent environmental policy statement implemented through an environmental management system which, among other things, is designed to ensure full compliance with applicable environmental laws, regulations, permits and agreements. Responsibility for execution of our environmental policies and related communications is centralized in our Environmental & Sustainability and Corporate Affairs groups to make certain that direct and indirect activities undertaken with respect to water policy are consistent with our internal policy, strategy, and commitments.

We establish and revise our positions on relevant policy questions as issues and regulations evolve, and Dominion Energy continuously validates those positions through management briefings. We strive to be transparent and communicate our positions to our peers through a wide range of federal and state trade associations. However, our membership in any given organization does not necessarily mean we are in full accord with its beliefs and positions with regard to water policy. Dominion Energy may choose not to endorse a trade group's positions if they are found to be inconsistent with our water policy and strategy.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

Yes (you may attach the report - this is optional)

Dominion Energy 2020 10-K.pdf

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	11-15	Dominion Energy's business objective is to deliver clean, safe, reliable, and affordable energy to our customers in a manner that meets or exceeds regulatory compliance requirements, allows for inclusive community involvement, and maintains long-term financial viability of the Company. For this reason, we integrate regulatory changes, risks, and opportunities related to water quality and availability into each annual planning cycle. Internal and external experts identify regulatory changes, risks, and opportunities, and associated costs and compliance actions are evaluated. Through quarterly management briefings and discussions, the proposed action plans and budgets are considered and incorporated into strategic and financial planning. This process drives evaluation of business units and power stations for long-term viability. In the latest planning cycle, Clean Water Act impingement and entrainment (316 b), thermal (316 a), and coal combustion residual (CCR) rules which relate to water quality and availability were evaluated. For example, as a result of the CCR rule assessment, we have incorporated the closure of our remaining coal ash ponds into our long-term strategic business and financial plan. We selected 11-15 years for long-term time horizon, because a valid water supply permit must be reevaluated and renewed every 15 to 50 years, depending on the region of operation.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	Dominion Energy's business objective is to deliver clean, safe, reliable and affordable energy to our customers in a manner that meets or exceeds regulatory compliance requirements, allows for inclusive community involvement, and maintains long-term financial viability of the Company. Our water-specific strategy, in support of our business objective, is to minimize impacts to waterways near our operations and to use less water as we transform our generation fleet and provide natural gas to our customers. For this reason, we integrate regulatory changes, risks and opportunities related to water quality and availability into each annual planning cycle. Internal and external experts identify regulatory changes, risks and opportunities, and associated costs and compliance actions are evaluated. Through quarterly management briefings and discussions, the proposed action plans and budgets are considered and incorporated into strategic and financial planning. This process drives evaluation of business units and power stations for long-term viability. Our strategy to use less water drives choices to include low-water technologies, such as air-cooled condensers at the Greensville, Brunswick, and Virginia City Hybrid Energy Center power stations, in our budgets and plans to meet energy demand. We selected 11-15 years for long-term time horizon, because a valid water supply permit must be reevaluated and renewed every 15 to 50 years, depending on the region of operation.
Financial planning	Yes, water-related issues are integrated	11-15	Dominion Energy's business objective is to deliver clean, safe, reliable and affordable energy to our customers in a manner that meets or exceeds regulatory compliance requirements, allows for inclusive community involvement, and maintains long-term financial viability of the Company. For this reason, we integrate regulatory changes, risks, and opportunities related to water quality and availability into each annual planning and budget cycle, as well as long-term integrated resource plans (IRPs). Internal and external experts identify regulatory changes, risks and opportunities, and associated costs and compliance actions are evaluated. Through quarterly management briefings and discussions, proposed action plans and budgets are considered and incorporated into strategic and financial planning. This process drives evaluation of business units and power stations for long-term viability. In each planning cycle since 2014, Clean Water Act effluent limitation guidelines (ELGs) for water quality protection have been evaluated. For example, an IRP is updated annually to plan how Dominion Energy South Carolina will meet energy demand over the next 15 years. The IRP includes assumptions about expenses that will be required to comply with the effluent limitation guidelines for Wateree and Williams power stations. We selected 11-15 years for long-term time horizon, because a valid water supply permit must be reevaluated and renewed every 15 to 50 years, depending on the region.

W7.2

(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

-19

Anticipated forward trend for CAPEX (+/- % change)

12

Water-related OPEX (+/- % change)

-81

Anticipated forward trend for OPEX (+/- % change)

348

Please explain

In January 2019, Dominion Energy completed the SCANA Merger. Trends include SCANA's 2018 expenditures to standardize the comparison. Dominion Energy decreased water-related CAPEX and OPEX in 2019 by 19% and 81%, respectively. This largely reflects the ongoing transition to lower water use for power generation and conclusion of some 316(b) studies. Dominion Energy anticipates a 12% increase in 2020 CAPEX as we spend asset retirement obligation (ARO) funds on transfer of coal ash from ponds to landfills. Construction of a ladder at the Gaston impoundment for the American Eel is another notable anticipated capital project in 2020. Water-related OPEX is expected to increase by 348% as capital 316(b) costs are covered by operating budgets. The expenses supported through ARO funds have been incorporated into the calculation of capital expense trends. Absent inclusion of ARO supported expenses, CAPEX trends decreased by 8% in 2019 and are projected to decrease by 12% in 2020.

W7.3

(W7.3) Does your organization use climate-related scenario analysis to inform its business strategy?

	Use of climate-related scenario analysis	Comment
Row 1	Yes	We performed a two-degree scenario (2DS) analysis and reported the findings in a Climate Report released in November 2018. The focus of the analysis was air quality and included two scenarios and one sensitivity: one scenario in which power sector emissions of GHG fall 60% below 2005 levels by 2050; a more stringent scenario in which those emissions fall 80% below 2005 levels by 2050; and a demand sensitivity that doubles the level of energy efficiency included in the 80% scenario. In broad terms, the 60% and 80% scenarios both present risks to Dominion Energy that must be managed through our planning process and addressed by company strategy. However, specific water-related issues were not identified during this analysis. We are working on a new Climate Report that will include an analysis to support our commitment to achieving net zero carbon and methane emissions by 2050; which was announced in February 2020. The new Climate Report is expected to be completed in 2021.

W7.3a

(W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?

No

W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

No, and we do not anticipate doing so within the next two years

Please explain

Dominion Energy operates across a wide geographic boundary within the United States, which constitutes a variety of water supply, regulatory, and water quality paradigms.

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Business level specific targets and/or goals Site/facility specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	Water targets, such as water intensity targets, are set by the business group (e.g. electric power generation group, or natural gas infrastructure group) by reflecting on past trends and future goals. For instance, to set the baseline for our water withdrawal/water intensity target, we quantified power generation for each station during the baseline year (2000) and applied a water intensity factor to estimate water use for that year. Next, to establish the target, we modeled a schedule of new (less water intensive) power generation and closures of more water intensive (coal) units. Those targets are communicated to the corporate level and approved by management. The targets and also performance to date against them are communicated annually to the Board of Directors' Sustainability and Corporate Responsibility (SCR) Committee. The SCR Committee is comprised entirely of independent Directors, assists the Board in its oversight of Company performance as a sustainable organization and responsible corporate citizen by: • Overseeing strategies, activities, and policies regarding environmental sustainability, corporate social responsibility, public issues of significance and related innovation matters that may affect our stakeholders; • Reviewing sustainability and corporate responsibility reports and other significant communications and reporting to stakeholders on environmental and social responsibility initiatives and activities; • Reviewing company sustainability targets and progress reports in achieving those commitments; and • Overseeing initiatives to support innovation, technology and sustainability.

W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number
Target 1

Category of target
Water recycling/reuse

Level
Site/facility

Primary motivation
Reduced environmental impact

Description of target
In our path towards achieving water security, we are committed to reducing water use by utilizing low-water-use technologies during our operations. In 2018, Dominion Energy commenced to install a Produced Water Treatment Skid at the Canyon Creek Produced Water Evaporation Facility. This facility is in an arid region of the Company's operations, in the Upper Colorado River Basin. The changing water quality of the evaporation ponds has proven difficult. The water intake point has been revised and we are working with the vendor to get the skid functional and reliable. This system is expected to be fully functional mid-year 2020 and will allow an estimated 21,000,000 gallons of water to be reused over the next five years at the Canyon Creek Unit Central facility and operations. The reuse will eliminate an estimated 2,500 truck trips per year at an annual savings to customers of $1 million.

Quantitative metric
% increase in water use met through recycling/reuse

Baseline year
2019

Start year
2020

Target year
2024

% of target achieved
0

Please explain
The produced water treatment system at the Canyon Creek facility was not fully operational in 2018. 2020 will be the first year the Company is increasing reuse/recycling in our gas extraction operations in the arid western U.S. As such, we are working towards tracking and increasing the amount of water to be reused at the facility.

W8.1b

(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.

Goal
Other, please specify (Water withdrawal reduction target)

Level
Business

Motivation
Reduced environmental impact

Description of goal
In efforts to achieve water security, we are committed to reducing water withdrawals through the use of new technology (dry cooled condensers) and the expansion of our renewable-energy fleet. This goal is important to the company as we are committed to reducing water use and finding new ways to conserve the water we do use. Our business plan is expected to result in a 50% reduction from 2000 levels in freshwater withdrawn per MWh of electricity generated by 2030. We are implementing this goal business-wide by focusing on building new generation facilities that use low-water use technologies and renewable generation projects that need no water, such as an offshore wind pilot project in the Atlantic Ocean.

Baseline year
2000

Start year
2018

End year
2030

Progress
As an indicator of incremental progress to reduce our overall water use, we compare year to year water withdrawal quantities. The business has already reduced its water withdrawals by utilizing low water use technologies (for example, dry cooled condensers) for new generation, and will further reduce future use as we continue to add to our renewable generation portfolio. For example, we use air cooled condensers at our Greensville Power Station, which became operational in late 2018. Similarly, our Cove Point gas liquefaction facility uses air cooling rather than contact water cooling. We evaluate progress toward our goal to reduce water withdrawals by tracking year over year improvement of our water intensity, and we have defined the threshold for success as follows: by 2030, we expect to achieve a 50% reduction from 2000 levels in freshwater withdrawn per MWh of electricity generated. In 2019, our freshwater withdrawal intensity of 73.0 cubic meters per net MWh is slightly higher compared to the previous year (68.4) due to the addition of generating facilities in South Carolina as well as better water accounting practices to remove stormwater discharges from the freshwater consumption calculation. This change in water intensity still falls within our definition of "about the same." We anticipate that water intensity levels will lower as we continue to explore low water use technologies and expand our solar generation.

Goal
Promotion of water data transparency

Level

Company-wide

Motivation
Corporate social responsibility

Description of goal
Our goal is to engage all levels of employees, including executives, on water-related disclosures by promoting water data transparency. This goal is important to the company as we are committed to water stewardship and water security. We look for opportunities to use less water — and to reuse what we do use to help preserve adequate quantities of acceptable, quality water for the communities where we operate and the surrounding ecosystems. As we make and deliver energy to our customers, we try to avoid impacts to waterways or put measures in place to protect them. We are implementing this goal company-wide by participating in programs that provide additional disclosures of our water use, such as the Edison Electric Institute Environmental Social Governance (EEI ESG)/Sustainability Metrics Pilot and the CDP water response. Furthermore, we publish our water data in our 2018 Sustainability & Corporate Responsibility Report and on our website.

Baseline year
2010

Start year
2018

End year
2019

Progress
We assess progress toward our goal to promote water data transparency by using the following indicators: 1) our stakeholders' ability to see the year to year progress of our water data performance and developments and 2) through the evaluation of our CDP water performance. Our threshold of success rests upon our ability to continue disclosing our water data through various avenues, such as our website and through environmental reporting initiatives. Since 2010, we have been meeting this threshold of success by formally submitting our water response to CDP and have improved our CDP score from Management B in 2018 to Leadership A in 2019.

Goal
Other, please specify (Water Intensity Targets)

Level
Company-wide

Motivation
Reduced environmental impact

Description of goal
In efforts to achieve water security, we are committed to reducing our water intensity levels through the use of new technology (dry cooled condensers) and the expansion of our renewable energy fleet. This goal is important to the company as we are committed to eliminating the need to use water and finding new ways to conserve the water we do use. Our business plan is expected to result in a 50% reduction from 2000 levels in freshwater withdrawn per MWh of electricity generated by 2030. We are implementing this goal business-wide by focusing on building new generation facilities that use low-water use technologies and renewable generation projects that need no water, such as an offshore wind pilot project in the Atlantic Ocean.

Baseline year
2000

Start year
2015

End year
2019

Progress
We track our water intensity levels year to year and use this trend as an indicator of our progress in meeting the goals. For example, in 2019, our freshwater consumption intensity levels increased slightly from 0.12 to 0.21 cubic meters of water per MWh. The slight increase is likely due to better water accounting by removing stormwater discharges where possible and the addition of new facilities in South Carolina. The year over year increase in new, low water use technologies, and expansion of our renewable energy fleet are the thresholds for successful progress toward this goal. In the reporting year, we continue to implement this target at our Chesterfield Power Station which reuses wastewater from the Proctors Creek Wastewater Treatment Plant in parts of its air emissions control equipment. In cooler months, Millstone Power Station uses variable-speed drivers to regulate water and ensure the plant only uses the amount of water necessary to produce power.

Goal
Other, please specify (Water compliance)

Level
Company-wide

Motivation
Other, please specify (Water compliance)

Description of goal
As part of our commitment towards achieving water security, we are also committed to reducing the potential impacts of the water we use on aquatic life. We do this by evaluating the water we use for cooling and other technologies. This is important as it would support the company's 100% compliance goal with the Environmental Protection Agency's (EPA's) requirements to evaluate and implement the best technologies for reducing the potential to impinge or entrain fish and shellfish in water withdrawals at our power stations. We are implementing this goal company-wide through the development of environmental compliance plans.

Baseline year
2014

Start year
2018

End year
2025

Progress
The Company is committed to reducing the potential impacts of the water we use on aquatic life. One indicator of our success in meeting our goal of 100% compliance with applicable federal water-related regulations is our current compliance with 316(b) of the Clean Water Act. Our threshold of success is defined as year over year progress in

evaluating and implementing the best technologies for reducing the potential to impinge or entrain aquatic life in water withdrawals at our power stations. As such, we have implemented studies, such as cost-benefit, engineering and biological evaluations of cooling water withdrawals from surface waters at 8 power stations (82% of the stations subject to the requirements). Most of these studies are complete and all studies are expected to be completed by December of 2021. Any new technology requirements will likely be incorporated into discharge permits issued by state regulatory agencies beginning in 2020 and will be installed in accordance with schedules established in those permits.

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

No, we are waiting for more mature verification standards and/or processes

W10. Sign off

W-FI

(W-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.

Data Comment: The information contained in this report is for general information purposes only, and Dominion Energy reports net megawatt hours (MWh) rather than gross MWh.

Penalties Reported in the 2019: Consistent with our commitment to transparency, we are identifying penalties that were received and reported in the 2019 CDP. One solar site and one gas pipeline construction project received penalties in 2019, but these penalties, collectively totaling $28,575, were disclosed in the 2019 Water CDP because the penalties were nearly final in 2019 and the notices of violation occurred in 2018. Accordingly, they are not included in the 2020 Water CDP.

Dominion Energy is committed to delivering safe and reliable energy in an environmentally sensitive way and in full compliance with relevant laws and regulations. We provide the energy to light and heat the homes of millions of families, to support data centers that power our increasingly digital world, and to keep schools, hospitals, and even national defense installations running smoothly. In achieving these purposes, we seek to engage stakeholders and accommodate reasonable input and feedback while also balancing reliability, engineering feasibility, and cost to customer considerations. Occasionally, despite our best efforts to establish the broadest possible consensus, organizations and individuals may disagree with our approach. In such cases, we believe it is important to review the full record which may or may not be captured in press coverage of the topic. Herein we provide additional information for projects that garnered increased media attention during 2019.

Atlantic Coast Pipeline

The project was developed to enable the regional transition from coal-fired to environmentally superior natural-gas powered electricity generation. The project was also intended to address chronic natural gas shortages in Eastern Virginia and North Carolina that constrained home-heating and business energy needs.

The local governments of more than 30 cities, towns and counties along the project's route formally adopted resolutions of support for the project, in addition to dozens of economic development organizations and labor unions, and tens of thousands of individual citizens.

In planning the project, the Company took extraordinary care to protect sensitive wildlife, streams and rivers, national forests and other environmental resources. We exhaustively surveyed more than 6,000 miles of potential routes before choosing a proposed 600-mile path with the least impact on the environment.

Throughout the project's development, we proactively engaged with environmental justice communities and environmental groups and made meaningful changes to address concerns and ensure the project's impact was minimized. For instance:

We made more than 300 route changes to avoid wetlands, wildlife habitats, sensitive streams and countless other environmental resources, and

We adopted some of the strongest environmental protections ever used by the industry to address erosion and compressor station emissions.

After the most thorough and exhaustive regulatory review in the region's history, the project was approved, on the basis of a detailed examination of the data, by more than a dozen state and federal agencies in late 2017 and 2018.

As a result of uncertainty caused by continued judicial challenges to the project's permits, the project sponsors, including Dominion Energy, elected to terminate the project in 2020.

Coal combustion residuals (CCR or "coal ash")

We have worked diligently with stakeholders over several years to arrive at a consensus closure solution that is fully protective of public and environmental health.

Most recently, Virginia enacted a law in 2019, which was supported by the Company, requiring that CCR ponds at several company-owned facilities be closed through a combination of excavating the CCR to lined landfills and recycling for beneficial use.

Comprehensive plans developed in accordance with the law and subject to regulatory monitoring provide a clear and set path forward to an environmentally sensitive solution to coal ash in Virginia.

Electric transmission, the Skiffes Creek project

In June 2012, Dominion Energy proposed electric transmission facilities to ensure reliable power delivery to thousands of customers in the wake of the proposed retirement of locally-situated coal-fired power stations for environmental compliance reasons. Without the project, it was forecast that customers would be subject to power outages. The critical transmission line has been energized since February 26, 2019 and continues to ensure the reliability of the electric transmission system for our customers.

In a March 1, 2019 ruling, the Court of Appeals for the D.C. Circuit found that the Army Corps of Engineers committed a procedural error when evaluating the potential effects of the project. The Court said that in evaluating the potential effects of issuing of a permit for the project on the James River and nearby historic properties, the Corps should have prepared an environmental impact statement, instead of an environmental assessment, to evaluate those impacts due to the nature of the project area and methodological disputes between the Corps and other parties as to how best to conduct the evaluation.

The Army Corps is in the process of collecting and reviewing information based on requested scoping comments and preparing a draft Environmental Impact Statement. When prepared, the agency will provide the public notice and an opportunity for comments on the draft Environmental Impact Statement. Dominion Energy is cooperating with the Army Corps to assist its Environmental Impact Statement process as much as possible. In the meantime, the Court, in reviewing all the facts of the case, has denied the requests of project opponents to have the transmission lines deenergized and/or removed while the supplemental study is completed.

Trade associations

Dominion Energy participates in a wide range of federal, state, and local trade associations and events reflecting the businesses that we are in and the communities that we serve. We do not subscribe to 100 percent of an organization's beliefs or positions by virtue of membership. We are, however, independently recognized in the 2019 CPA-Zicklin Index of Corporate Political Disclosure and Accountability report as being in the top 15% of all S&P 500 companies for the quality and transparency of our disclosures around political giving and lobbying.

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	Executive Vice President and Co-Chief Operating Officer	Chief Operating Officer (COO)

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

Please confirm below

I have read and accept the applicable Terms