

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 January 2019, Dominion Energy has a portfolio of approximately 32,000 megawatts (MW) of generation; 108,800 miles of natural gas transmission, gathering, storage and distribution pipelines; and 95,000 miles of electric transmission and distribution lines. Dominion Energy operates one of the nation's largest natural gas storage systems with approximately one trillion cubic feet of storage capacity and serves 7.5 million utility and retail energy accounts. Dominion Energy develops and produces gas reserves in Wyoming, Colorado, and Utah, and is a producer and supplier of natural gas liquids at facilities in Maryland, Ohio, Pennsylvania, and West Virginia. In January 2019, Dominion Energy completed the SCANA Combination in a stock-for-stock merger valued at \$13.4 billion. SCANA, now a wholly-owned subsidiary of Dominion Energy operating as Southeast Energy Group (SEG), is primarily engaged in the generation, transmission and distribution of electricity in the central, southern and southwestern portions of South Carolina and in the distribution of natural gas in North Carolina and South Carolina. SEG's water inputs and outputs are not included in the 2019 water CDP, because SEG became part of Dominion Energy outside of the reporting timeframe. Dominion Energy remains focused on managing its carbon footprint and ongoing efforts to provide safe, reliable, affordable and clean energy to customers. Solar energy generation is a key component of Dominion Energy's clean energy growth. Since 2013, we've brought 2,600 MW of large-scale solar into operation in nine states, enough energy to power about 600,000 homes at peak solar output. In 2018, the company brought online 136 megawatts of solar generating capacity at six facilities, and we are planning to add another 3,000 MW of new solar or wind in Virginia by 2022. Dominion Energy is now the nation's fourth-largest utility owner-operator of solar power. In 2018, Dominion Energy had partial ownership of two wind power facilities and is constructing the Virginia Offshore Wind Project, which includes two 6 MW turbines, enough to power 3000 homes at peak. Two onshore wind power facilities operated in 2018 generate 565 MW of electricity, enough to power up to 156,000 homes. As of June 2019, Dominion Energy divested one of these onshore wind facilities. The Company employs traditional hydropower at two locations in Virginia and two locations in North Carolina. Additionally, the Bath County Pumped Storage Station is the largest of its kind in the world, capable of powering 750,000 households - more than the Hoover Dam. Dominion Energy takes pride in its environmental stewardship. Dominion Energy's strategy is to be a leading sustainable provider of electricity, natural gas and related services. Since 2003, Dominion Energy has donated nearly \$32 million to a wide variety of environmental projects across its footprint.

The terms "Dominion Energy," "Company," "we," "our" and "us" are used throughout this report and, depending on the context of their use, may represent any one of the following: the legal entity, Dominion Energy, Inc., one or more of Dominion Energy, Inc.'s subsidiaries or operating segments, or the entirety of Dominion Energy, Inc. and its consolidated subsidiaries. The information contained in this report is for general information purposes only, and Dominion Energy reports net megawatt hours (MWh) rather than gross MWh. 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.

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 power source.

	Nameplate capacity (MW)	% of total nameplate capacity	Gross generation (MWh)
Coal – hard	4622.1	17.3	12306493
Lignite	0	0	0
Oil	2151.6	8.1	737432
Gas	12144.3	45.5	38711972
Biomass	303.3	1.1	1196109
Waste (non-biomass)	0	0	0
Nuclear	5508.6	20.6	43541328
Geothermal	0	0	0
Hydroelectric	286.1	1.1	851897
Wind	282.7	1.1	574297
Solar	1400.6	5.2	2793143
Other renewable	0	0	0
Other non-renewable	0	0	0
Total	26699.3	100	100622671

W-OG0.1a

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

- Upstream
- 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 2018	December 31 2018

W0.3

(W0.3) Select the countries/regions 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 facilities and electric distribution centers. As of December 31, 2018, Dominion Energy has about 6,600 miles of transmission lines. Dominion Energy also has nearly 57,000 miles of distribution lines, 900 substations, 566,000 transformers and 1.1 million utility poles. 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, an incident at the Dominion Energy Virginia Crystal City Substation occurred in 2016. Penalties were paid for this incident. Pollution control measures were implemented and a damage assessment was completed.
Call Centers, Office Buildings, and other Administrative Uses	The Company is focusing on the largest known sources of water inputs and outputs, which includes water withdrawn or used by our Company at our electric generating facilities. 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 types of facilities. Individually and collectively, water used at these facilities is significantly less than water withdrawn or used at our electric generation stations. Therefore, 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. For example, in 2018 Dominion Energy was assessed a penalty by the Utah Department of Environmental Quality for a self-reported release of chiller water containing lithium bromide from a Dominion Energy Operations Center to a water body in Utah. This incident will be prevented in the future because the chiller has been replaced with a mechanical chiller that does not contain chiller water.
Greensville Power Station	Though the Dominion Energy Greensville Power Station was operational starting on December 8, 2018, the station was not commercially active to produce electricity until 2019. Water reporting is typically measured when a station is commercially active. As such, the Greensville Power Station water data is not included in this disclosure. However, this station is included in our water-related risk assessments, as water-related risks are evaluated more than 6 years further into the future. The facility uses air-cooled condensers which reduce water withdrawal and water consumption.
Southeast Energy Group	In January 2019, Dominion Energy completed the SCANA Combination in a stock-for-stock merger valued at \$13.4 billion. SCANA, now a wholly-owned subsidiary of Dominion Energy operating as Southeast Energy Group (SEG), is primarily engaged in the generation, transmission and distribution of electricity in the central, southern and southwestern portions of South Carolina and in the distribution of natural gas in North Carolina and South Carolina. In addition, SEG markets natural gas to retail customers in the southeast U.S. Following the completion of the SEG Combination, Dominion Energy's portfolio of assets includes approximately 32,000 MW of electric generating capacity, 10,200 miles of electric transmission lines, 84,800 miles of electric distribution lines, 15,900 miles of natural gas transmission, gathering and storage pipelines and 92,900 miles of gas distribution pipeline, exclusive of service lines. Dominion Energy operates approximately 1 trillion cubic feet of natural gas storage capacity and serves nearly 7.5 million utility and retail energy customers. Because SEG's subsidiaries became part of Dominion Energy in 2019, their water inputs and outputs fall outside of the 2019 water CDP reporting timeframe.

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	Important	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. "Important" was chosen as several of our largest power stations are dependent on freshwater in order to continue operations. We have systems in place to manage variations in water quality. Indirect use is primarily for development of fuel sources. We are not aware of any indirect current water-related risks that cannot be actively handled and managed, leading to the selection of "neutral". 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 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 at Pittsylvania and Mecklenberg and installation of additional solar sites), 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.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Neutral	Direct Use: Some of our electricity generating stations rely on brackish surface water, primarily for non-contact and ancillary equipment cooling. "Important" was selected as these stations require large amounts of brackish water in order to continue operations. Indirect Use: Similar to the situation for freshwater, we are not aware of any current water-related risks in our supply chain that cannot be actively handled and managed, leading to the selection of "neutral". There is little to no use of brackish water in our indirect operations, though it is used heavily in our direct operations. 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. In 2018, Dominion Energy Wexpro nearly completed installation of a produced water treatment system at the Canyon Creek Unit Produced Water Evaporation Facility. This system 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. We anticipate that in future years, the dependence on recycled and reused water may increase slightly in the future in anticipation that the new Canyon Creek facility will be operational in 2019. However, the overall trend will most likely fall within the range of "about the same." We do not anticipate the importance of indirect recycled, brackish and produced water dependence will differ from "Neutral" in the future because we maintain a robust supply chain system, including but not limited to, alternative suppliers.

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 and estimations based on water pump run times; frequency of measurement and estimation vary depending on facility. For example, our North Anna facility monitors withdrawal volumes daily.
Water withdrawals – volumes from water stressed areas	100%	All power stations and gas operations within scope measure or estimate water withdrawals, including withdrawals from areas with baseline water stress as indicated by the Water Resources Institute (WRI) Aqueduct tool. A water stressed area is one that may be prone to water shortages, and the 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. Methods of withdrawal measurement and estimation employed at our facilities include flow totalizers, other flow meters and estimations based on water pump run times. The frequency of withdrawal measurement and estimation depends on facility. For example, our Surry facility measures groundwater withdrawals continuously, and the withdrawal volumes are recorded monthly.
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 our power stations reported in this document. The frequency of withdrawal measurement and estimation depends on facility. For example, water intakes can be metered, and flow data compiled monthly (e.g. Chesterfield Power Station), or flow volumes can be calculated based on the time the water intake pump is operating and recorded hourly (e.g. Mount Storm Power Station). 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.

	% of sites/facilities/operations	Please explain
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sectors]	<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 using tank gauging and strap sheets. 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 significant 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, 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. For example, water chemistry of Mt. Storm Lake is evaluated annually during other biological monitoring.
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. The method and frequency of discharge measurements and estimations varies by facility and discharge point. Some once-through cooling water discharges are estimated based on volume withdrawn. To the extent possible, volumes of discharges comprised of only stormwater have been removed from reported totals. The method and frequency of measuring discharge volumes vary by facility. For example, Chesterfield power generating facility monitors some discharge volumes continuously.
Water discharges – volumes by destination	100%	All power stations and gas operations within scope measure or estimate water discharges by destination. The majority of stations report discharge volume information through industrial storm water permits. Discharges are measured at different discharge points (also known as outfalls), both internal and external to each facility. The method and frequency of discharge measurements and estimations varies by facility and by discharge point. For example, the Clover facility discharges treated stormwater to a creek, while the treated process water discharges to the Roanoke River. These discharges are monitored separately. Stormwater discharge flow volumes, and standard water quality parameters are measured at least once per year within the first 30 minutes of a 0.1-inch rain event. Measurement of process water flows ranges from once per day to five days per week.
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, the Clover facility treats stormwater through sedimentation whereas process water is treated through sedimentation, pH adjustment, and 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.
Water discharge quality – by standard effluent parameters	100%	All power stations and gas operations within scope measure or estimate water discharges and collect effluent water quality data. The majority of stations report water quality information through industrial stormwater permits. Discharges are measured at different discharge points (also known as outfalls) both internal and external to each facility. The water quality parameters evaluated vary by facility and by discharge point. The method and frequency of discharge measurements and estimations also varies by facility and by discharge point. For example, at the Chesterfield Power Station, the treated water discharging from the CCR Pond Closure Project is monitored three times per 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.
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 by 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 temp 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. Mount Storm and North Anna power stations).
Water consumption – total volume	100%	Water consumption at our power stations can occur through 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 of our facilities within the scope of this response (i.e. significant water uses). All of our power stations measure or estimate water consumption associated with 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 the volume of water consumption are provided in this report. The method and frequency of consumption measurements and estimations varies by facility. Water consumption is often calculated annually, but data is available monthly to evaluate water consumption more often if needed.
Water recycled/reused	26-50	At different facilities, water is reused and recycled in different ways, leading to variable methods and frequency of measurement depending on facility. For example, Rosemary power generating facility reuses rainwater water for cooling.

	% of sites/facilities/operations	Please explain
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. The water 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).

W-EU1.2a

(W-EU1.2a) For your hydroelectric 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 2018 in mega liters (ML) per year are as follows: North Anna (North Anna River) = 503,341 ML/yr, Cushaw (James River) = 287,961 ML/yr, Roanoke Rapids (Roanoke River) = 82,422,959 ML/yr, Gaston (Roanoke River) = 94,968,267 ML/yr, and Bath County (Back Creek) = 1,576,396 ML/yr. *The Bath County Power Station is unique among our hydroelectric power stations in that water from Back Creek and drainages adjacent to the project are stored within two impoundments of differing elevations. In this pumped storage scenario, 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 Bath County Pumped Storage Project is retained. A minimum flow is continuously released to Back Creek downstream of the project to sustain the aquatic ecosystem. 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. Other water use for the operation of the North Anna Power Station has been included in this report.
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 71,328 were passed upstream in 2018. Also in 2018, transport of eel above the Gaston dam commenced and the collective number of eels passed upstream of either Roanoke Rapids or Gaston dams approached 73,000.

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	10172595	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 this year are about the same as last year, falling within the 25% less to 25% margin of "About the same", because our operations required a similar amount of water withdrawal volumes. 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 intensity will be reduced. We are reporting water usage based on percent equity.
Total discharges	10160925	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 this year showed a slight increase within the margin of 25% less to 25% more to be called "Lower," consistent with our definitional precedent for reporting to the CDP. Our discharge levels remained relatively the same as our operational processes did not change from the previous year. Our future water discharge volumes may vary, driven by our future generation portfolio. We are reporting water usage based on percent equity.
Total consumption	11421	Much lower	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 total consumption this year showed a decrease within the margin of greater than 50% less to be called "Lower," consistent with our definitional precedent 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 of 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. The decrease in total consumption volumes compared to the previous year may be attributed to the retirement or divestment of certain facilities, as well as improved water accounting. Our future water consumption volumes may vary, driven by our future generation portfolio. Using the formula $\text{Withdrawal} = \text{Discharge} + \text{Consumption}$, 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. This year, we are beginning to 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	469	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 oil & gas related withdrawals this year showed an increase within the margin of much higher to be called "much higher," consistent with our definitional precedent for reporting to the CDP. 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 have increased compared to the previous year. This is due to an updated process of how we disclose our water data, rather than changes in facility operations. Water withdrawals were about the same as the previous year. The reported volume of 469 MGL/year includes water withdrawn and used by our Gas Infrastructure Group (GIG) transmission and Wexpro extraction and production facilities. We anticipate that in future years, the total upstream withdrawals will remain relatively the same.

	Volume (megaliters /year)	Comparison with previous reporting year %	Please explain
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.” Our oil & gas related withdrawals this year showed an increase within the margin of much higher to be called “much higher,” consistent with our definitional precedent for reporting to the CDP. 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 have increased compared to the previous year due to an updated process of how we disclose our water data, rather than changes in facility operations. Total discharges were about the same as the previous year, and 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 GIG transmission and Wexpro extraction and production facilities.
Total consumption – upstream	225	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 increased compared to the previous year, and consistent with our definitional precedent of “Much Higher”. However, this change is solely due to an updated process of how we disclose our water data, rather than changes in facility operations. Total consumption was about the same as the previous year, and we anticipate that in future years, the total upstream consumption will remain relatively the same.
Total withdrawals - downstream	1	This is our first year of measurement	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, this is the first year we are reporting our total downstream withdrawals; due to an updated process of how we disclose our 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 – downstream	0.11	This is our first year of measurement	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, this is the first year we are reporting our total downstream discharges; and therefore, there are not disclosed changes to the quantity of discharges compared to the previous year. We anticipate that in future years, the total downstream discharges will remain relatively the same.
Total consumption – downstream	1.28	This is our first year of measurement	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, this is the first year we are reporting our total downstream consumption; and therefore, there are not disclosed changes to the quantity of discharges compared to the previous year. 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) Provide the proportion of your total withdrawals sourced from water stressed areas.

	% withdrawn from stressed areas	Comparison with previous reporting year	Identification tool	Please explain
Row 1	0.1	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 0.1% of withdrawals come from water-stressed areas is based on the input of latitude/longitude data of our 24 power-generating facilities, which withdraw fresh water. The latitude/longitude are entered into the WRI Aqueduct map tool, areas with the resulting output of "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. We also excluded facilities that utilize company-owned reservoirs. Continuous reuse of water from company-owned reservoirs greatly diminishes the relevance of water stress. WRI Aqueduct's output was a list of water stress by facility. When these facilities' water withdrawals were translated into actual water withdrawal volume, the percentage (33%) was obtained, as compared to total water withdrawals. Large company-owned reservoirs can alleviate a local condition of water stress from the perspective of power station operations and risk associated with water stress. When power stations utilizing reservoirs were excluded from the analysis of water stress, the actual percentage of water withdrawal volume from water stressed areas for 2018 was 0.1%. This represents withdrawals by three power stations. The change from last year is within a +/-25% change, which falls under our established definition of "About the same". In 2010, 2011, 2012, and 2014 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 2017 proportion is about the same as the 2018 result of 0.1%.

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	6877702	About the same	In 2018, we experienced a slight decrease (~7%) in freshwater withdrawal volume, falling under our definition for "About the same". Our freshwater withdrawal volume remained the same as our facilities utilized similar amounts of water during operations. Fresh surface water is relevant to our operations as many of our facilities require large amounts of water to operate at all, and for many of our locations, including Chesterfield Power Station and North Anna Power Station, the most readily accessible source of water is fresh surface water (namely, rivers and lakes). We are reporting water usage by percent equity.
Brackish surface water/Seawater	Relevant	3287583	About the same	In 2018, the company experienced a slight decrease (~2%) in brackish/seawater withdrawal volume, falling under our definition for "About the Same." Our brackish surface water/seawater withdrawal volume remained the same as our facilities utilized similar amounts of water during operations. 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 and Manchester Street Power Station, the readily accessible source of water is brackish/seawater (such as Long Island Sound and Providence River).
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. None of our electric generation stations return groundwater back to its original source through groundwater injection, and a very small amount of renewable groundwater use (injection of 19 megaliters/year to water disposal wells) occurs at our gas extraction facilities.
Groundwater – non-renewable	Relevant	1559	About the same	In 2018, we experienced a slight increase (~8%) in groundwater withdrawal volume, falling under our definition of "About the same". Our non-renewable groundwater withdrawal volume remained the same as facilities utilized similar amounts of water during operations. Just as for fresh/brackish surface water, groundwater is relevant to our operations because many facilities require water to operate, and many obtain this water through wells and extraction from groundwater. Some stations such as the Remington, Ladysmith and Southampton power stations, actually obtain the majority of their water from groundwater wells. We are reporting water usage by percent equity.
Produced/Entrained water	Relevant	315	About the same	Produced/entrained water is relevant to our operations, as our GIG distribution facilities use the water during operations. However, our facilities utilize a relatively insignificant volume of produced / process water from any of our operations. For 2018, we are reporting a decrease (~76%) in produced/entrained water volume. However, this decrease in produced/entrained water withdrawal volumes is due to changes in the way we define and disclose our water data, rather than changes in facility operational needs.
Third party sources	Relevant	5435	About the same	A number of our stations, including our Brunswick and Hopewell power stations, obtain the vast majority of their water from third-party sources, primarily municipalities. Third-party water usage volume remained about the same as our facilities utilized similar amounts of water during operations. These sources are relevant because they provide 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.

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	6866949	About the same	Fresh surface water discharge is relevant to our operations at a number of our facilities, especially those such as Chesterfield Power Station and North Anna 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 CY2018, we experienced an increase (~16%) in fresh surface water discharge, though we continue to define changes within 25% as "About the Same". This year, we are beginning to report water usage by percent equity.
Brackish surface water/seawater	Relevant	3292627	About the same	Just as with fresh surface water, a number of our facilities, including our Millstone and Manchester Street power stations, are located on bodies of brackish water / seawater (including Long Island Sound and Providence 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 CY2018, we experienced a very slight decrease (~1%) in brackish/seawater discharge, falling under our definition of "About the Same". 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	207	Much higher	Groundwater discharge is relevant to our organizations because a very small amount of groundwater injection to water disposal wells (207 mega liters/year) occurs at our gas extraction facilities. 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 has increased compared to the previous year. This is due to an updated process of how we disclose our water data, rather than changes in facility operations.
Third-party destinations	Relevant	1142	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 and Bellemeade 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 CY2018, we are reporting a significant increase (~155%) in discharge to third-party destinations. However, our third-party destinations withdrawal volumes increased compared to the previous year due to an updated process of how we disclose our water data, rather than changes in facility operations.

W1.2j

(W1.2j) What proportion of your total water use do you recycle or reuse?

	% recycled and reused	Comparison with previous reporting year	Please explain
Row 1	26-50	About the same	Water is reused and recycled at our facilities in different ways, including process water being reused as scrubber spray water (Virginia City Hybrid Energy Center) and cooling tower blowdown water reuse (Possum Point power station). The reported change in the percent of reused and recycled water compared to last year is within the 25%-50% range and meets the established definition of "Higher". To obtain this number, we took the volume of recycled water and divided it into the sum of withdrawal water and recycled water, as per CDP guidelines. (% recycled = recycled water volume / (total withdrawal volume + recycled water volume)). The reported increase of the proportion of total water use recycled or reused reflects improved water accounting practices. We began quantifying the amount of cooling water recycled from company-owned reservoirs at North Anna and Mount Storm power stations. In 2018, Dominion Energy Wexpro nearly completed installation of a produced water treatment system at the Canyon Creek Unit Produced Water Evaporation Facility. This system 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. We anticipate that in future years, the volume of water recycled and reused will increase slightly in anticipation that the Canyon Creek facility will be operational in 2019, however, the trend will most likely fall within the range of "about the same."

W-OG1.2j

(W-OG1.2j) What proportion of your total water use do you recycle or reuse in your operations associated with the oil & gas sector?

	% recycled and reused	Comparison with previous reporting year	Please explain
Upstream	Less than 1%	About the same	The change compared to the previous reporting year for percent of water reused and recycled is within the range of 25% less to 25% more and meets the established definition for "About the Same". The volume of water recycled/reused remained relatively the same as there were minimal changes in the facility operations associated with the oil & gas sector. Dominion Energy has a goal to recycle/reuse water in 2018, particularly in the arid west. The impact of this reuse is that there is a reduced dependence on sources of water withdrawal, especially on municipal water withdrawal at facilities such as the Virginia City Hybrid Energy Center. We anticipate future upstream water volumes would slightly increase as the Canyon Creek Unit Produced Water Evaporation Facility becomes fully operational in 2019; this facility will allow Dominion Energy to reuse an estimated 21 million gallons of water over the next five years.
Downstream	None	About the same	The change compared to the previous reporting year for percent of water reused and recycled is within the range of 25% less to 25% more and meets the established definition for "About the Same". The volume of water recycled/reused remained relatively the same as there were minimal changes in the downstream facility operations associated with the oil & gas sector. Dominion Energy has a goal to recycle/reuse water in 2018, particularly in the arid west. The impact of water reuse would be a reduced dependence on sources or water withdrawal. We anticipate future trends to remain the same.
Chemicals	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other business division	<Not Applicable>	<Not Applicable>	<Not Applicable>

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: unit of production	Comparison with previous reporting year	Please explain
0.12	Freshwater consumption	MWh	Lower	Our water intensity is 0.12 cubic meters of freshwater consumption per net megawatt hour (MWh) (i.e. 0.00000012 billion liters per net MWh). In order 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, 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 lower compared to the previous year due to our shift towards low water use technologies and renewable energy power generation. For example, in 2018, the company brought online 136 megawatts of solar generating capacity which is low water consumption power generation. We anticipate that water intensity levels will decrease as we continue to explore low water use technologies and expand our solar generation.
81.95	Freshwater withdrawals	MWh	About the same	Our water intensity is 81.95 cubic meters of fresh water withdrawn (i.e. consumptive plus non-consumptive) per net megawatt hour. In order 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. Our freshwater withdrawal intensity is slightly lower compared to the previous year due to our shift towards low water use technologies and renewable energy power generation. For example, in 2018, the company brought online 136 megawatts of solar generating capacity at six facilities, which withdraw little to no water. We anticipate that water intensity levels will lower 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 engage with 19 out of 30 of our power generation water suppliers to ensure that there is sufficient water quantity and quality to meet Dominion Energy's operational and regulatory requirements; 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. For example, our Virginia City Hybrid Energy Center (VCHEC) power station requires nearby municipalities, which represent 1-25% of suppliers, to report on raw water usage and other issues that may affect the station. The VCHEC relies on municipal water for its operation, and so changes in the municipal supply may affect station generation. We incentivize the municipality to respond through contract and professional courtesy.

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, water quantity, and more. Supplier information may be used to plan station operations. For example, at the Virginia City Hybrid Energy Center (VCHEC), the information obtained from the municipal supplier is used to plan station operations, as municipal water supply makes up roughly 50% of all water coming into the station. Success is measured, generally, as the absence of extreme changes in station operations, the ability for our station to operate with no interruptions and based on the municipal 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

Other

Details of engagement

Other, please specify (EUISSCA annual survey)

% of suppliers by number

1-25

% of total procurement spend

51-75

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. We requested 90 of our suppliers, represent 61% 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 2018, we had a 26% survey response rate, with 23 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.

Comment

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. 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 land owners, 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.

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 Dominion Energy, we understand the importance of an enhanced relationship between a utility and the community it serves, employees it entrusts, partners it engages with, regulatory bodies it negotiates and complies with, and investors it collaborates with. This is an understanding that is shared at all levels of leadership across our value chain. This said, we made it a priority to identify our primary stakeholders and their interests and material issues. Based on these interests and material issues, we prioritized engagements that can deliver on each of these interests, needs and demands. For example, we recognized that our communities want us to be good partners in reducing the environmental effects of our operations. For this reason, we worked with community leaders and local level stakeholder extensively on water-related engagements. Examples of our engagement activities including:

1. Consultation with our local communities with regards to our new projects and new construction. We do this by holding public meetings and engaging landowners.
2. Engaging our employees. through communications regarding building construction/retrofit policies and water use.
3. Providing grants for community water-related projects. Through the Dominion Energy Charitable Foundation, the philanthropic arm of the company, we provided over \$1 million in environmental stewardship and education grants to community organizations. For example, we provided \$25,000 to the Nature Conservancy's outdoor classroom at Great Salt Lake Shorelands Preserve, and \$15,000 to Friends of the Rappahannock focused on their Lower River Oyster Restoration efforts.

We prioritize water-based grants that demonstrate sustainability, lasting impact on the community, and significant and measurable outcomes. Our measures of success vary by engagements and stakeholders. For example, we measure the success of our engagement with community organizations by completion of the projects' objectives.

W2. Business impacts

W2.1

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

Yes

W2.1a

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

Country/Region

United States of America

River basin

Santee River

Type of impact driver

Physical

Primary impact driver

Pollution incident

Primary impact

Increased compliance costs

Description of impact

In June of 2018, Dominion Energy received a notice of violation from South Carolina Department of Health and Environmental Control for a sediment discharge along a 7-mile span of the 55-mile Moore to Chappells Pipeline right-of-way in the North and South Tyger River basins of South Carolina. This prompted Federal Energy Regulatory Commission inspection of the entire right-of-way from May through September of 2018. The notice of violation resulted in a minimal impact to Dominion Energy. The financial impact reflects expenditures on supplies, services and a fine including: \$125,000 for reseeding and site repair, \$60,000 for additional consulting services, \$4,200 fine issued by SCDHEC.

Primary response

Pollution abatement and control measures

Total financial impact

189200

Description of response

Dominion Energy's environmental compliance staff carefully evaluated the impacts and the causes of the sediment release. In close coordination with the regulatory agency, we determined the most environmentally pragmatic remedy. The erosion and sediment structures were fortified or re-installed where they had been previously removed. Sediment was removed, however in some areas it was more environmentally pragmatic to distribute a wetland seed mix on the thin layer of sediment rather than risk compaction of sensitive wetland soils by removing the sediment with equipment. The financial impact reflects expenditures on supplies, services and a penalty including: \$125,000 for reseeding and site repair, \$60,000 for additional consulting services, \$4,200 penalty issued by SCDHEC. As part of a larger focus on our environmental footprint, we are also ramping up our corporate environmental awareness and diligence by adding more field inspectors and environmental compliance coordinators (ECCs) and elevating the profile of environmental professionals. We now have dedicated management level personnel responsible for environmental oversight within each business group.

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, fines, enforcement orders or other penalties but none that are considered as significant

W2.2a

(W2.2a) Provide the total number and financial value of all water-related fines.

Row 1

Total number of fines

2

Total value of fines

28575

% of total facilities/operations associated

1.4

Number of fines compared to previous reporting year

About the same

Comment

Of the 141 power generation and gas infrastructure facilities within the scope of the Water CDP disclosure, two facilities received penalties in 2019 for notices of violation issued in 2018. The percentage of these facilities receiving penalties was 1.4%. These penalties are also included in the total financial impact of detrimental impacts provided earlier in this report. Dominion Energy finalized a Consent Order with the Virginia Department of Environmental Quality in June 2019 for self-reported wetland impacts that occurred at the Southampton Solar Project in 2018. The Consent Order included a \$24,375 penalty. Dominion Energy paid a \$4,200 penalty to South Carolina Department of Health and Environmental Control (SCDHEC) for sediment discharge which occurred in 2018 along the Moore to Chappells right-of way.

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?

As part of our environmental management system we create environmental compliance plans, which list out all environmental compliance requirements and the compliance methodologies that are in place for such requirements. Environmental compliance requirements include compliance with water standards. In addition, 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 track reportable environmental events (REEs) and perform root cause analysis to prevent REEs from recurring. A REE is a permit deviation, regulatory deviation, environmental release or other environmental event that was under operational control of Dominion Energy or contractor and must be reported to a regulatory or land management agency.

The company maintains current NPDES permits that ensures discharges at all of our stations comply with applicable state water quality standards. The NPDES process itself follows the pollutant list found in the Code of Federal Regulations at 40 CFR 401.15. During the NPDES permitting process, the state permitting agency and the Company work together to determine if any total maximum daily loads (TMDL) or water quality impairments occur in the receiving waters or watershed. 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 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 the most sensitive methods and detection levels commercially available and economically feasible. In addition, stormwater leaving the station

is monitored for a suite of parameters such as total suspended solids, total recoverable aluminum, and pH.

In April 2015, EPA published a final rule regulating the management of coal combustion residuals (CCRs) stored in impoundments (ash ponds) and landfills. The final rule regulates CCR landfills, existing ash ponds that still receive and manage CCRs, and inactive ash ponds that do not receive, but still store CCRs. We currently have inactive ash ponds and/or CCR landfills subject to the final rule at eight different facilities. In order to comply with the new rules, we began treating, testing and releasing water from ash ponds at Bremono Power Station in April 2016, at Possum Point Power Station in May 2016, and at Chesterfield Power Station in November 2017. Direct discharge from ash ponds at these three stations has ended and any ash contact water associated with closure of the ponds is treated and discharged in accordance with Virginia Pollutant Discharge Elimination System permit requirements that include discharge limitations for parameters known to be associated with coal ash.

Also, in 2015, EPA issued revised Steam Electric Power Generating Effluent Guidelines (ELG) that required meeting more stringent limits on key wastewaters generated by combusting coal or oil which provide further requirements for waters associated with operations at the Chesterfield power station.

In November of 2017, we stopped discharging water to our coal ash ponds at our Chesterfield Power Station, and thereafter ash contact waters within the pond have been processed through a multi-stage treatment system before being tested and released. In addition, the project included the conversion from wet handling of ash into dry, construction of new treatment basins onsite and construction of a new landfill to handle future dry CCR material. 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 with ELG regulations.

In 2019, legislation was passed in Virginia requiring CCR ponds at specific Dominion Energy's power stations including Chesterfield, Possum Point, Chesapeake and Bremono and other ash facilities at Chesapeake Energy Center, be closed by removing the CCR to lined landfills or through 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
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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, monitoring temperature and operating parameters, biological studies, written procedures for consistency, self-assessments, internal auditing, staff training, and structural best management practices. Also, the National Pollutant Discharge Elimination System, 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 best management practices 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 spill way 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 has 11 coal ash ponds, 2 FGD ponds and 3 low volume treatment ponds subject to coal ash regulations in Virginia and West Virginia. 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. Coal combustion residuals (CCR) or coal ash consists of many components– mostly silicon, iron, and aluminum with trace amounts of arsenic, selenium, mercury, boron, thallium, cadmium, chlorides, bromine, magnesium, chromium, copper, nickel, and other metals. CCR composition varies widely depending on the coal type, origin, use, and air pollution control equipment. Coal ash pond closings are managed to avoid impacts to water quality through the discharge of pollutants or from erosion. One of the first steps is “dewatering” the ponds, which involves careful treatment and testing of the water before it is released. We worked with several top firms that specialize in on-site wastewater treatment. We treated, tested the water on-site using multistage process to meet or go beyond stringent, government-mandated levels before release. The coal ash itself was 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, which requires any CCR surface impoundment located at our Brema, Chesapeake, Chesterfield or Possum Point power stations that stop accepting CCR prior to July 2019 be closed by removing the CCR to an approved landfill or through recycling for beneficial reuse. We are currently planning implementation of this new requirement.	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 ongoing responsibility to monitor the sites. In November 2018, we announced four important actions toward closing five remaining ash ponds at four power stations (Chesterfield, Possum Point, Chesapeake and Brema). We will meet or exceed all regulations and inspections to ensure protection of human health and the environment. For example, at our Chesterfield Power Station we converted the station from wet to dry ash handling, built a new landfill and added new treatment for process waters and future pond closures at the station. 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 the 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 EMS for coal ash pond closings, which includes environmental compliance plans, monitoring applicable parameters, biological studies, written procedures or consistency, self-assessments, internal auditing, staff training, and structural best management practices. Groundwater monitoring and reporting will continue 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.

Potential water pollutant	Description of water pollutant and potential impacts	Management procedures	Please explain
Hydrocarbons	For our operations, hydrocarbons involved are generally oil and grease, which can adversely impact aquatic ecosystems.	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, operational procedures to limit discharge of oil and grease, and some treatment capability in our wastewater systems. Implementation of our Environmental Management System 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.
Radiation	A radiological release from our nuclear plants could potentially impact aquatic ecosystems and human health.	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 Corporate Environmental Policy Statement and in adherence to stringent regulations of the U.S. Nuclear Regulatory Commission (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 analyses 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 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.

Potential water pollutant	Description of water pollutant and potential impacts	Management procedures	Please explain
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 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, including employee education, regulatory compliance tracking, self-assessments and best management practices to ensure stormwater and related TSS are managed properly and 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. We have a goal of 100% compliance with federal, state and local regulations and endeavor to prevent all spillage. The success of our erosion and sediment control practices is measured through compliance tracking. We track reportable environmental events 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 we create environmental compliance plans, which list out all environmental compliance requirements including compliance with water standards and the compliance methodologies that are in place for such requirements. These environmental compliance requirements 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.

In addition, 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 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.

We employ qualified environmental inspectors on all of our large and many of our small projects in addition to the construction supervisor to provide additional focus to understanding and maintaining strong erosion and sedimentation controls and other mitigative measures to reduce impacts of construction. Rigorous re-vegetation post construction provides immediate and ongoing protection of surrounding waterways and habitat.

Rigorous methods are employed when performing HDDs (horizontal directional drills) to either replace or install new pipelines across or adjacent to waterways to prevent inadvertent returns, with immediate response plans in place to mitigate impacts if an unfortunate event occurs. HDDs may be employed in specific waterbody crossings to protect waterways difficult to restore to pre-construction condition.

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, from any of our 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 water quality based 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, controlling erosion of sediment through innovative and traditional practices. Dominion Energy, along with seven other energy companies, has partnered with The Nature Conservancy (TNC) to develop best practices to minimize environmental impacts of pipeline construction in mountainous areas. A final report published in 2018, developed in close collaboration with TNC, is intended to serve as a catalyst for the pipeline industry to reduce the risks of landslides, slips, erosion and other environmental impacts on wildlife habitats and water quality. The final report details 10 recommended and 4 potential best practices.

We reuse hydrostatic testing water by "cascading" it from test section to test section. Once complete, the water may be discharged back to a local waterbody, often the same watershed where it was obtained, if the water is 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 hydrostatic testing water away to a waste water treatment facility or other waste facility.

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 to 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.

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 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.	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.
Other, please specify (Waste Streams)	Upstream	Various waste streams are generated during the maintenance and operation of the natural gas extraction and compression equipment and are accumulated in designated locations. These waste streams have the potential to cause significant adverse impacts on water ecosystems and human health.	Measures to prevent spillage, leaching and leakages	The Company uses an environmental management system, including employee education, regulatory compliance tracking, self-assessments and best management practices to ensure hazardous waste is managed properly and consistent with regulatory requirements. The Company establishes and follows a hazardous waste contingency plan 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.
Other, please specify (Total suspended solids)	Upstream 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 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.	Please select	The Company uses an environmental management system, including employee education, regulatory compliance tracking, self-assessments and best management practices to ensure stormwater and related TSS are managed properly and 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 upon 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?

>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; Internal Company Methods)

Comment

The Company conducts a comprehensive, company-wide (enterprise) risk assessment process incorporating direct operations only and employs probabilistic modeling tools to compare alternative plans. The risks 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 utilized the WRI Aqueduct Water Atlas to assess baseline water stress levels of power generation and oil & gas facilities located in potentially water stressed areas.

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?

Up to 1 year

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 power generation stations, gas extraction facilities, and certain infrastructure projects are evaluated for water supply risks periodically such as during the annual budgeting process, when renegotiating contractual arrangements with water suppliers (every 1+ years), and when water withdrawal permits are under renewal with the state agency (generally every 15 years). 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	We consider water availability to be a highly relevant contextual issue across our direct operations. 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 2018 Water Risk Assessment (WRA). 140 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 a “substantive financial or strategic impact” as one that would change how investors buy, hold, and sell Dominion Energy securities. We reported that 17 percent of assessed facilities could have potential for substantive impact in operations in the event that an exceptional drought were to occur. For example, the Brunswick, Greenville, 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 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 relevant across our direct operations. 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 2018 Water Risk Assessment (WRA). One hundred and forty 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. Seven 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 Bremono, 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 to water quality.

	Relevance & inclusion	Please explain
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, sometimes included	We consider stakeholder interests and potential conflicts to be relevant across our direct operations. 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. One hundred and forty 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. 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 2018 Water Risk Assessment (WRA). One hundred and forty 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 sell Dominion Energy securities. In 2018 the WRA concludes that 12 percent 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. 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.
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 2017-2018 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 in place in which we assess the status of ecosystems and habitats as needed at the facility level. 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 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 100% compliance with regulations especially to those related to water and to being an employer of choice. 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 on-site water supply and treatment system, 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. According to our 2018 Annual Report, the Company employed 16,017 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.
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. For example, Dominion Energy's goal of 100% compliance with regulations, including water-related regulations, and 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. Moreover, we are committed to transparency with our customers with regards to 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, 2017-2018 Sustainability & Corporate Responsibility Report, and more. We engage with our customers by providing them with a variety of tools aimed at managing energy use, saving money and improving customer service. For example, we regularly engage local communities, which includes our customers, to inform our decision making process for new construction, citing large infrastructure projects and new power stations. We do this by holding public meetings and engaging landowners.
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, tailored to specific jobs, education and experience levels, to improve safety performance. Surry Power Station implements a water use education training tool for employees as well as a leak reduction and repair program. Surry also uses water saving fixtures in its sanitary facilities. In 2018 the Gordonsville Power Station began tracking water volumes being used as supplemental cooling on the fin tube heat exchangers. This has elevated staff awareness about water usage and has initiated some practice changes to potentially reduce water usage. Additionally, through Dominion Energy's Annual Incentive Plan, c-suite officers and other eligible employees are eligible for a monetary reward based on the company achievement of financial, business unit financials, individual operating and stewardship goals, which may be directly or indirectly linked to water stewardship. An example of an 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 used to group expertise around a particular challenge. The Company recognizes impactful ideas can come from all levels. All employees are engaged through surveys to provide ideas for improvement to better leverage the wealth of knowledge across all business units. These ideas are reviewed by sprint teams who meet regularly with the best ideas achieving executive leadership 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, 2017-2018 Sustainability & Corporate Responsibility Report, and more.
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. 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 in which we serve. To that end, we exercise community outreach and evaluations through frequent public meetings. Information related to water performance, metrics, and goals are available to our local communities through our website's Environmental and Social Stewardship page, 2017-2018 Sustainability & Corporate Responsibility Report, and more.
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 2018 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, during the reissuance of the Virginia Pollutant Discharge Elimination System Permit for Chesterfield Power Station adjacent landowners were notified by mail, a public information was held on June 22, 2016 to explain the draft permit, and a public hearing was conducted on July 6, 2016 to receive public comments. Written comments were received by VDEQ for a 30-day period after the hearing. For the issuance of the Virginia Water Protection Permit for North Anna Unit #3 future water withdrawals in 2011, a similar process of riparian landowner notification and public engagement was followed to evaluate and potentially accommodate other water users' interests.
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, in compliance with 40 CFR 257.107, which regulates the disposal of coal combustion residuals (CCR) in surface ponds, Dominion Energy has developed emergency action plans, assessments, and hosted annual meetings. Attendees of the Bremono Power Station North Pond Emergency Action Plan 2018 annual meeting included regulators from the State of Virginia's Department of Environmental Quality, Dept. of Emergency Management, and Dept. of Conservation and Recreation.

	Relevance & inclusion	Please explain
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, hosting meetings, and more. 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. 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. 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 — and 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 will work 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) because 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.
Water utilities at a local level	Relevant, always included	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 on an as-needed basis for direct operations. 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 in which 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 annually 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 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 the WRI Aqueduct Water Atlas, probabilistic modeling tools and internal company methods. These tools were used to determine which of our facilities are subject to various water-related risks, which include allocation, drought, water quality and regulatory risks. 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. Responses to water-related risks vary depending on the risk. Responses range from budgeting adjustments to infrastructure improvements and operational changes.

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 selling Dominion Energy securities. 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 conservatively; any change in impacts, ranging from low to high magnitudes, that a reasonable investor would attach importance to when considering Dominion securities would count as an issue with the potential to cause a substantive strategic impact. This is applicable primarily to our direct operations, though it can occasionally apply to our indirect operations as issues that affect Dominion Energy service areas.

As an example of a considered, substantive water-related impact, our 2018 10-K Annual Report identifies severe storms, earthquakes, flooding and changes in water temperature and availability as having the potential to disrupt operation of company facilities, negatively impacting our direct operations and potentially being of importance to a reasonable investor. 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	24	1-25	We have a total of 24 power generation facilities exposed to water risk with the potential to have a substantive financial or strategic impact. We have no gas facilities 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 impact on your business, and what is the potential business impact associated with those facilities?

Country/Region

United States of America

River basin

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

1-25

Comment

Certain facilities in the river basin may be subject to significant 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 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.

Country/Region

United States of America

River basin

Roanoke River

Number of facilities exposed to water risk

4

% 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

1-25

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 holding ponds and lead to wetlands discharge.

Country/Region

United States of America

River basin

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

1-25

Comment

One facility in the river basin may be subject to significant change associated with the 316(b) Cooling Water Intake and 316(a) Thermal Discharge Rules based on continuing 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 are also substantive.

Country/Region

Country/Region

United States of America

River basin

Other, please specify (Long Island Sound)

Number of facilities exposed to water risk

1

% 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

1-25

Comment

Our power generating facility in the Long Island Sound Basin may be subject to significant change associated with the Clean Water Act 316(b) Cooling Water Intake and 316(a) Thermal Discharge Rules. The station has also 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. The ability to withdraw and discharge water in the Long Island Sound is subject to some risk, because important conservation efforts to boost flounder and lobster populations could result in reduced water allocations.

Country/Region

United States of America

River basin

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

1-25

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. One power generating facility in this river basin is also potentially at risk of experiencing a reduced groundwater allocation or increased groundwater costs, in its value chain because it uses groundwater from within the Virginia Eastern Groundwater Management Area.

Country/Region

United States of America

River basin

Other, please specify (York)

Number of facilities exposed to water risk

5

% 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

1-25

Comment

In the York River Basin, water prices, low groundwater table, and the potential of prolonged drought are risks, which could result in increased operational costs or curtailed power generation.

Country/Region

United States of America

River basin

Other, please specify (Clinch River)

Number of facilities exposed to water risk

1

% 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

1-25

Comment

The facility in the Clinch River Basin could have difficulty operating in a situation of severe drought or flooding.

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/Region

United States of America

River basin

Other, please specify (Multiple basins; James and Potomac)

Type of risk

Regulatory

Primary risk driver

Tighter regulatory standards

Primary potential impact

Increased capital costs

Company-specific description

In 2017, Virginia's Governor signed legislation into law that placed a moratorium on the VDEQ issuing solid waste permits for closure of ash ponds at Virginia Power's Bremono, Chesapeake, Chesterfield and Possum Point power stations until May 2018. The law required Dominion Energy to conduct an assessment of closure alternatives for the ash ponds at these four stations, to include an evaluation of excavation for recycling or off-site disposal, surface and groundwater conditions and safety. Dominion Energy completed the assessments and provided the report in December 2017. Pursuant to the legislative requirements, Dominion announced in 2018 actions toward closing our five remaining ash ponds at four power stations (Chesterfield, Possum Point, Chesapeake and Bremono), which will incur capital costs. Among these actions, was the release of the required recycling study which informs the debate on the costs, feasibility and market for recycling ash at our four remaining power stations with ash ponds and disclosure of groundwater results at six power stations (Chesterfield, Possum Point, Bremono, Yorktown, Clover and the Virginia City Hybrid Center) which inform next steps for evaluating remediation at the facilities. To identify and assess this risk, the Company used internal company methods, including but not limited to obtaining contractor bids. We assess risk and plan accordingly over applicable timescales (i.e. 1 year to 10 years depending on the time horizon of the risk).

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 potential magnitude of costs. 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 Bremono) and other ash facilities at Chesapeake Energy Center. Dominion Energy already recycles approximately 500,000 tons of coal combustion byproducts each year. Bids were considered if they encapsulated the ash (i.e. binds 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 of the work to recycle the ash at all the sites. In this case, the costs range from \$2.773 billion to \$3.358 billion. 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.

Primary response to risk

Comply with local regulatory requirements

Description of response

We have initiated planning and compliance activities at our facilities subject to these regulations and have plans in place to ensure compliance. We are moving to safely and permanently close these ponds while meeting or exceeding all federal, state, and local regulations. 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, the Virginia legislature passed a bill requiring ash ponds at Chesterfield, Possum Point, Chesapeake and Bremono and other ash facilities at Chesapeake Energy Center, be closed by removing the CCR to lined landfills or through recycling for beneficial use. 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.

Cost of response

140000000

Explanation of cost of response

As we comply with the Commonwealth of Virginia's closure requirements, the closure costs can be recoverable through a rate adjustment clause that cannot exceed \$225 million in any 12-month period. We report a cost of response of \$140 million, because in 2018 Dominion Energy recorded an increase in AROs of \$140 million primarily related to future ash pond and landfill closure

costs at certain generation facilities.

Country/Region

United States of America

River basin

Other, please specify (All basins in which we operate)

Type of risk

Physical

Primary risk driver

Flooding

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Our operations can be affected by changes in the weather. In addition, severe weather, including but not limited to hurricanes, floods, landslides, subsidence, and winter storms, can be destructive, causing outages and property damage that require incurring 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 2018-19, it was determined that multiple power generation facilities (e.g. Southampton, Gravel Neck, Surry) are located in areas that are a potential flood risk.

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?

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

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.

Primary response to risk

Develop flood emergency plans

Description of response

Our facilities are designed to encounter severe weather and other natural events. 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, Surry) located in areas that are a potential flood 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 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/Region

United States of America

River basin

Other, please specify (All basins in which we operate)

Type of risk

Physical

Primary risk driver

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 potential weather events would have the potential impact of reduction or disruption in the production capacity of our power generation facilities. While assessing facility-specific risks in 2018-19 we identified several facilities (e.g. Hopewell, Mt. Storm, Clover, Yorktown) located in areas that have the potential for drought risk. 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 of 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.

Primary response to risk

Other, please specify (Event Planning)

Description of response

Our facilities are designed to encounter severe weather, which they have been subject to over the last century without significant impact. 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 is embedded in our tradition of extensive planning to ensure we provide safe, reliable and affordable utility service.

Country/Region

United States of America

River basin

Other, please specify (Multiple basins in which we operate)

Type of risk

Regulatory

Primary risk driver

Other, please specify (Establish site-specific targets)

Primary potential impact

Increased capital costs

Company-specific description

Six of our power generation facilities (E.g. Chesterfield, Surry, Millstone, North Anna, Possum Point, Yorktown) are located in areas with a potential for 316(b)-related risk. Due to the cooling Water Intake Regulations under 316(b) of the Clean Water Act: these facilities may have to install and/or modify existing infrastructure to meet compliance requirements, which would result in increased capital costs. To identify risk, the Company uses internal company methods, including but not limited to regulatory agency engagement, trade group participation, comprehensive risk analysis, and stochastic analysis. We assess risk and plan accordingly over applicable timescales (i.e. 1 year to 10 years depending on the time horizon of the risk). To identify risk, the Company uses internal company methods, including but not limited to regulatory agency engagement, trade group participation, comprehensive risk analysis, and stochastic analysis. We assess risk and plan accordingly over applicable timescales (i.e. 1 year to 10 years depending on the time horizon of the risk).

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)

0

Potential financial impact figure - maximum (currency)

2000000000

Explanation of financial impact

We provide a range of potential financial impact figures that are based on existing studies and reflect the estimated potential magnitude of costs. 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 range varies by station. Yorktown and Possum Point 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

Establish site-specific targets

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 percent. In 2018, 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

8500000

Explanation of cost of response

The estimated cost of responses thus far varies by station. Costs of implementation activities range from \$40,000 to \$3 million per station. The total cost of the response of \$8.5 million accounts for biological studies, economic and engineering studies, and preparation of reports. 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.

Country/Region

United States of America

River basin

James River

Type of risk

Regulatory

Primary risk driver

Tighter regulatory standards

Primary potential impact

Increased capital costs

Company-specific description

Our Surry and Gravel Neck power generation facility 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.

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)

0

Potential financial impact figure - maximum (currency)

15000000

Explanation of financial impact

Alternate water supplies and capital expenditures were estimated to be the same as recent engineering estimates developed for a new water treatment system that was to be potentially installed at the Possum Point Power Station.

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.

Cost of response

0

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. Should alternate water supplies or capital expenditures be required in the future, the associated cost has not been fully evaluated.

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/Region

United States of America

River basin

Other, please specify (Multiple basins in which we operate)

Stage of value chain

Supply chain

Type of risk

Physical

Primary risk driver

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 of 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 financial 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

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. Should power generation be disrupted, 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

Include in Business Continuity Plan

Description of response

Strategy and costs will depend upon need for alternative supplies or additional infrastructure/filters, etc., which can vary from facility to facility. As part of our business continuity plan in place to mitigate flood-related supply chain disruption risk due power stations such as Bear Garden strive to stock-up (e.g. top off chemical tanks) to ensure adequate supply whenever weather events are eminent.

Cost of response

0

Explanation of cost of response

Strategy and costs will depend upon need for alternative supplies or additional infrastructure/filters, etc. 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/Region

United States of America

River basin

Other, please specify (Chowan)

Stage of value chain

Supply chain

Type of risk

Regulatory

Primary risk driver

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 on use of groundwater in this area, could lead to increased water prices for the company facility, curtailment of power generation, or a change in the facility's strategy for obtaining and using cooling water resulting from a reduced groundwater allocation. In western states, water suppliers face risk that is not considered material to the overall company. For example, water is needed to wash panels at solar energy facilities. Drought can reduce the allocation certain water suppliers receive and complicate the process of supplying water.

Timeframe

>6 years

Magnitude of potential financial 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, etc. 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 the Altavista Power Station

Primary response to risk

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. There is no cost to maintain this alternate supply.

Cost of response

0

Explanation of cost of response

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, newer power stations (E.g. Warren County Power Station, Brunswick County Power Station) use air cooled condensers rather than traditional once-through cooling systems. Since 2013, we have increased our low water intensity generation from solar by 41 megawatts to nearly 2,600. This is a strategic opportunity to help Dominion Energy meet our water-related goal of reducing water

withdrawals per megawatt hour by 50% from 2000 to 2030. Renewable generation of the future is expected to include utility-scale solar and offshore wind projects. Additionally, 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

Text field [maximum 1,500 characters] As compared to other Company expenditures such as for fuel and capital improvements, water costs for power generation are generally low. Dominion Energy is in the process of re-evaluating the cost proposals for grid transformation and security. 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

Other, please specify (Water Conservation)

Company-specific description & strategy to realize opportunity

There is a potential opportunity to reuse, reclaim, or recycle water used in the generation of electricity. These opportunities are implemented at certain company facilities, as feasible. For example, at the 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 the Clover Power Station, we use cooling tower blowdown water, boiler blowdown, floor drains, 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. 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.

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)

975000

Potential financial impact figure – maximum (currency)

2120479

Explanation of financial impact

Based on the range of water costs at the Bellemeade and the Hopewell power stations, we estimated the potential range in savings the Company may be realizing by using grey water for the Chesterfield Power Station. This provides an example of the potential savings at one power generating facility. We did this by calculating the per gallon water cost per gallon of water and multiplying by the gallons of greywater used at Chesterfield (415,000,000 gallons per year).

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 2017-2018 Sustainability & Corporate Responsibility Report, Dominion Energy reported the level of freshwater withdrawn (consumptive and non-consumptive) to produce power at a rate of 0.000074 billion of liters per megawatt hour of generation in 2017, which is approximately 47% lower than the rate in 2000. Our 2018 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 of publishing water-related metrics online and through participating in other water-related disclosures is considered strategic for our company as 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 foot printing a business leads to an increased ability to report water metrics and water-related information to key stakeholders. Because of stakeholder interest in our 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 acceptably, 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

We lead water restoration and conservation projects, we also invest in community water-related projects by providing grants to community organizations through the Dominion Energy Foundation, the philanthropic arm of the company. Each year, Dominion Energy sponsors “Dominion Riverrock”, the United States’ largest outdoor sports and music festival on the James River in Richmond, Virginia.

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)

2100000

Explanation of financial impact

Water-related issues provide opportunities for community leadership and local level stakeholder engagement. We regularly engage communities when siting large infrastructure projects and new power stations we hold public meetings, we engage landowners. There are potential cost savings by fully vetting plans and making the most informed siting decisions for new construction. Also, in 2018 the Dominion Energy Charitable Foundation made grants totaling over \$2.1 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 \$2.1 million as a general representation of direct financial investment in communities. Some water-related grants included: \$25,000 to the Nature Conservancy's outdoor classroom at Great Salt Lake Shorelands Preserve, and \$25,000 to the Elizabeth River Project, in Portsmouth, VA, to support efforts at their Paradise Creek Nature Park. Each year, Dominion Energy sponsors "Dominion Energy Riverrock", the United States' largest outdoor sports and music festival on the James River in Richmond, Virginia. Dominion Energy's 2018 provided \$250,00 in financial support for Riverrock plus volunteer support. 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, total water accounting data and comparisons with the previous reporting year.

Facility reference number

Facility 1

Facility name (optional)

Altavista

Country/Region

United States of America

River basin

Roanoke River

Latitude

37.12

Longitude

-79.28

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)

794.95

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

208.59

Comparison of discharges with previous reporting year

Much higher

Total water consumption at this facility (megaliters/year)

586.36

Comparison of consumption with previous reporting year

Lower

Please explain

The Altavista Power Station reported about the same total water withdrawal volume, much higher total discharge volume and lower total consumption volumes compared to the previous reporting year. Higher total discharges may be attributed to higher than average rainfall, resulting in higher stormwater discharges as compared to lower rainfall years. The National Oceanic and Atmospheric Administration reported that in its November U.S climate report that several states, including Virginia and West Virginia, exhibited the wettest first eleven months in 2018 of any year in records dating to 1895.

Facility reference number

Facility 2

Facility name (optional)

Bath County Pumped Storage

Country/Region

United States of America

River basin

James River

Latitude

38.23

Longitude

-79.82

Primary power generation source for your electricity generation at this facility

Hydroelectric

Oil & gas sector business division

Not applicable

Total water withdrawals at this facility (megaliters/year)

32144

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

33846.13

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

-1702.14

Comparison of consumption with previous reporting year

About the same

Please explain

The Bath County Pumped Storage Station reported water used for power generation for the first time for this reporting year. For water other than that used in the power generation process, the volume of total water withdrawals, discharge and consumption compared to the previous year were about the same. The station consists of two large reservoirs. When energy demand is low, water is pumped from the lower reservoir to the upper one. When demand is high, valves permit water to run through the tunnels to the lower reservoir at a rate as high as 13.5 million gallons per minute, turning six turbine generators. Negative total water

consumption at this facility can be attributed to the constant recycling of water, causing it to get counted as a “withdrawal” numerous times when it comes into the facility but never or only once as a “discharge” when it flows downstream and leaves the perimeter of the facility.

Facility reference number

Facility 3

Facility name (optional)

Bear Garden Power Station

Country/Region

United States of America

River basin

James River

Latitude

37.69

Longitude

-78.29

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)

3715.39

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

862.5

Comparison of discharges with previous reporting year

Much higher

Total water consumption at this facility (megaliters/year)

2852.9

Comparison of consumption with previous reporting year

About the same

Please explain

The Bear Garden Power Station reported about the same volume of total water withdrawals, much higher volume of total discharges and about the same volume of total consumption compared to the previous year. Higher total discharges may be attributed to higher than average rainfall, resulting in higher stormwater discharges from treatment ponds as compared to lower rainfall years. The National Oceanic and Atmospheric Administration reported that in its November U.S climate report that several states, including Virginia and West Virginia, exhibited the wettest first eleven months in 2018 of any year in records dating to 1895.

Facility reference number

Facility 4

Facility name (optional)

Bremo Power Station

Country/Region

United States of America

River basin

James River

Latitude

37.71

Longitude

-78.29

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)

3630.91

Comparison of withdrawals with previous reporting year

Much lower

Total water discharges at this facility (megaliters/year)

3606.35

Comparison of discharges with previous reporting year

Much lower

Total water consumption at this facility (megaliters/year)

24.56

Comparison of consumption with previous reporting year

About the same

Please explain

The Bremono Power Station reported a much lower volume of total water withdrawals, discharge and much higher consumption compared to the previous year. However, the relative scale of total water consumption is very low (3ML in 2017 and 25ML in 2018), and therefore we report Bremono's total water consumption as about the same. Dominion Energy's Power Generation businesses has been executing a strategy of Facility Decommissioning and placing facilities in cold reserve. This decision results in reduced water consumption over the long term. In 2018, this included units at Bremono Power Station. In the future, Bremono is expected to consume much lower amounts of water.

Facility reference number

Facility 5

Facility name (optional)

Brunswick Power Station

Country/Region

United States of America

River basin

Other, please specify (Chowan)

Latitude

36.76

Longitude

-77.71

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)

206.3

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

110.16

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

96.15

Comparison of consumption with previous reporting year

About the same

Please explain

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

Facility reference number

Facility 6

Facility name (optional)

Chesapeake Energy Center

Country/Region

United States of America

River basin

James River

Latitude

36.77

Longitude

-76.3

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 withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

0

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

0

Comparison of 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 7

Facility name (optional)

Chesterfield Power Station

Country/Region

United States of America

River basin

James River

Latitude

37.38

Longitude

-77.38

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)

740486.17

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

742983.63

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

-2497.46

Comparison of consumption with previous reporting year

Much lower

Please explain

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

Facility reference number

Facility 8

Facility name (optional)

Clover Power Station

Country/Region

United States of America

River basin

Roanoke River

Latitude

36.87

Longitude

-78.7

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)

3920.99

Comparison of withdrawals with previous reporting year

Much lower

Total water discharges at this facility (megaliters/year)

1572.94

Comparison of discharges with previous reporting year

Higher

Total water consumption at this facility (megaliters/year)

2348.05

Comparison of consumption with previous reporting year

Much lower

Please explain

The Clover Power Station reported much lower total water withdrawal volume, higher total discharge volume and much lower total consumption volumes compared to the previous reporting year. Higher total discharges may be attributed to higher than average rainfall, resulting in higher stormwater discharges as compared to lower rainfall years. The National Oceanic and Atmospheric Administration reported in its November U.S climate report that several states, including Virginia and West Virginia, exhibited the wettest first eleven months in 2018 of any year in records dating to 1895. At the Clover Power Station, we reuse cooling tower blowdown water, boiler blowdown, floor drains, sewage treatment plant discharge as water for the air emissions treatment system.

Facility reference number

Facility 9

Facility name (optional)

Gaston Hydro Power Station

Country/Region

United States of America

River basin

Roanoke River

Latitude

36.25

Longitude

-77.66

Primary power generation source for your electricity generation at this facility

Hydroelectric

Oil & gas sector business division

Not applicable

Total water withdrawals at this facility (megaliters/year)

0

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

0

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

0

Comparison of 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 10

Facility name (optional)

Gordonsville Power Station

Country/Region

United States of America

River basin

Other, please specify (York)

Latitude

38.12

Longitude

-78.2

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)

81.71

Comparison of withdrawals with previous reporting year

Much higher

Total water discharges at this facility (megaliters/year)

18.59

Comparison of discharges with previous reporting year

Much higher

Total water consumption at this facility (megaliters/year)

63.12

Comparison of consumption with previous reporting year

Much higher

Please explain

The Gordonsville Power Station reported withdrawals, discharges and consumption at much higher volumes than the previous year. This is because the station generated significantly more power and therefore needed more water to operate. The station generated 226,726 MW in 2017 and 848,666 MW in 2018. Higher total discharges may also be attributed to higher than average rainfall, resulting in higher storm water discharges from treatment ponds as compared to lower rainfall years. The National Oceanic and Atmospheric Administration reported that in its November U.S climate report that several states, including Virginia and West Virginia, exhibited the wettest first eleven months in 2018 of any year in records dating to 1895.

Facility reference number

Facility 11

Facility name (optional)

Greensville County Power Station

Country/Region

United States of America

River basin

Other, please specify (Chowan)

Latitude

36.72

Longitude

-77.65

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 withdrawals with previous reporting year

This is our first year of measurement

Total water discharges at this facility (megaliters/year)

0

Comparison of discharges with previous reporting year

This is our first year of measurement

Total water consumption at this facility (megaliters/year)

0

Comparison of consumption with previous reporting year

This is our first year of measurement

Please explain

The Greenville Power Station became operational in December of 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 12

Facility name (optional)

Hopewell Power Station

Country/Region

United States of America

River basin

James River

Latitude

37.3

Longitude

-77.28

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)

855.5

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

94.71

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

760.79

Comparison of consumption with previous reporting year

About the same

Please explain

The Hopewell 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. 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

Facility reference number

Facility 13

Facility name (optional)

Ladysmith Power Station

Country/Region

United States of America

River basin

Other, please specify (York)

Latitude

38.07

Longitude

-77.51

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)

28.01

Comparison of withdrawals with previous reporting year

Much higher

Total water discharges at this facility (megaliters/year)

0

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

28.01

Comparison of consumption with previous reporting year

Much higher

Please explain

The Ladysmith Power station reported much higher total water withdrawals, about the same water discharge and much higher 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 22% more power in 2018 than in 2017. This may in part explain the higher level of water usage.

Facility reference number

Facility 14

Facility name (optional)

Millstone Nuclear Station

Country/Region

United States of America

River basin

Other, please specify (Long Island Sound)

Latitude

41.31

Longitude

-72.17

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)

2517178.23

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

2521852.08

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

-4673.86

Comparison of consumption with previous reporting year

Much lower

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. Higher total discharges and negative total consumption may be attributed to higher than average rainfall, resulting in higher stormwater discharges as compared to lower rainfall years. The National Oceanic and Atmospheric Administration reported in its November U.S climate report that Connecticut experienced precipitation "Much Above Average" during the first eleven months in 2018.

Facility reference number

Facility 15

Facility name (optional)

Mount Storm Power Station

Country/Region

United States of America

River basin

Potomac River

Latitude

39.2

Longitude

-79.27

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)

1183021.53

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

1183009.2

Comparison of discharges with previous reporting year

Much higher

Total water consumption at this facility (megaliters/year)

12.33

Comparison of 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 16

Facility name (optional)

North Anna Nuclear Station

Country/Region

United States of America

River basin

Other, please specify (York)

Latitude

38.06

Longitude

-77.79

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)

2251882.66

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

2253396.66

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

-1513.99

Comparison of consumption with previous reporting year

Much lower

Please explain

The North Anna Nuclear Station reported about the same volume of total water withdrawals and discharges as compared to the previous reporting year. Much lower total water consumption is reported for the North Anna Power Station, because we improved our water accounting practices in 2018 by differentiating between once-through cooling water and other process water. Negative volumes of water consumed may be attributed to higher than average rainfall, resulting in higher stormwater discharges as compared to lower rainfall years. The National Oceanic and Atmospheric Administration reported in its November U.S climate report that several states, including Virginia and West Virginia, exhibited the wettest first eleven months in 2018 of any year in records dating to 1895

Facility reference number

Facility 17

Facility name (optional)

Possum Point Power Station

Country/Region

United States of America

River basin

Potomac River

Latitude

38.55

Longitude

-77.29

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)

132411.4

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

126692.87

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

5718.53

Comparison of consumption with previous reporting year

Much higher

Please explain

The Possum Point 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 18

Facility name (optional)

Remington Power Station

Country/Region

United States of America

River basin

Other, please specify (Rappahannock)

Latitude

38.54

Longitude

-77.77

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)

19.06

Comparison of withdrawals with previous reporting year

Much higher

Total water discharges at this facility (megaliters/year)

0

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

19.06

Comparison of consumption with previous reporting year

Much higher

Please explain

The Remington Power Station reported much higher 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)

Roanoke Rapids Power Station

Country/Region

United States of America

River basin

Roanoke River

Latitude

36.48

Longitude

-77.64

Primary power generation source for your electricity generation at this facility

Hydroelectric

Oil & gas sector business division

Not applicable

Total water withdrawals at this facility (megaliters/year)

0.19

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

0

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

0.19

Comparison of 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 20

Facility name (optional)

Southampton Power Station

Country/Region

United States of America

River basin

Other, please specify (Chowan)

Latitude

36.65

Longitude

-77

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)

1202.02

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

0

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

1202.02

Comparison of 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 21

Facility name (optional)

Surry Nuclear Station/ Gravel Neck Power Station

Country/Region

United States of America

River basin

James River

Latitude

37.17

Longitude

-76.7

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)

2510427.28

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

2509468.09

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

959.19

Comparison of consumption with previous reporting year

About the same

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 22

Facility name (optional)

Virginia City Hybrid Energy Center (VCHEC)

Country/Region

United States of America

River basin

Other, please specify (Clinch)

Latitude

36.92

Longitude

-82.34

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)

2224.3

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

914.55

Comparison of discharges with previous reporting year

Much higher

Total water consumption at this facility (megaliters/year)

1309.75

Comparison of consumption with previous reporting year

About the same

Please explain

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

Facility reference number

Facility 23

Facility name (optional)

Warren County Power Station

Country/Region

United States of America

River basin

Potomac River

Latitude

38.97

Longitude

-78.18

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)

199.68

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

89.03

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

110.65

Comparison of consumption with previous reporting year

Higher

Please explain

The Warren County Power Station reported about the same total water withdrawal volume, lower total discharge volume and higher total consumption volumes compared to the previous reporting year. Higher consumption and other variability in water withdrawals and discharges can be due to operational variability. 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 24

Facility name (optional)

Yorktown Power Station

Country/Region

United States of America

River basin

Other, please specify (York)

Latitude

37.21

Longitude

-76.46

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)

496447.64

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

496622.53

Comparison of discharges with previous reporting year

Higher

Total water consumption at this facility (megaliters/year)

-174.89

Comparison of consumption with previous reporting year

Much lower

Please explain

The Yorktown Power Station reported higher total water withdrawal volume, higher total discharge volume and much lower total consumption volumes compared to the previous reporting year. Higher total discharges and negative consumption may be attributed to higher than average rainfall, resulting in higher stormwater discharges as compared to lower rainfall years. The National Oceanic and Atmospheric Administration reported in its November U.S climate report that several states, including Virginia and West Virginia, exhibited the wettest first eleven months in 2018 of any year in records dating to 1895.

W5.1a

(W5.1a) For each facility referenced in W5.1, provide withdrawal data by water source.

Facility reference number

Facility 1

Facility name

Altavista

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

247.32

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

547.63

Comment

Facility reference number

Facility 2

Facility name

Bath County Pumped Storage

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

32135.77

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

8.22

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 3

Facility name

Bear Garden Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

3068.47

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

646.93

Produced/Entrained water

0

Third party sources

0

Comment

The Bear Garden power generating facility purchases water from a third-party and the water is initially withdrawn by that party from the James River.

Facility reference number

Facility 4

Facility name

Bremo Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

3628.06

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

2.85

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 5

Facility name

Brunswick Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

206.3

Comment

Facility reference number

Facility 6

Facility name

Chesapeake Energy Center

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 7

Facility name

Chesterfield Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

738317.14

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

2169.03

Comment

Facility reference number

Facility 8

Facility name

Clover Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

3916.49

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

4.5

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 9

Facility name

Gaston Hydro Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 10

Facility name

Gordonsville Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

49.23

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

32.48

Comment

Facility reference number

Facility 11

Facility name

Greenville County Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 12

Facility name

Hopewell Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

855.5

Comment

Facility reference number

Facility 13

Facility name

Ladysmith Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

28.01

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 14

Facility name

Millstone Nuclear Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

2516784.67

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

393.56

Comment

Facility reference number

Facility 15

Facility name

Mount Storm Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

1183009.2

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

12.33

Comment

Facility reference number

Facility 16

Facility name

North Anna Nuclear Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

2251874.07

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

8.6

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 17

Facility name

Possum Point Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

132299.73

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

111.67

Comment

Facility reference number

Facility 18

Facility name

Remington Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

19.06

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 19

Facility name

Roanoke Rapids Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0.19

Comment

Facility reference number

Facility 20

Facility name

Southampton Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

883.44

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

318.58

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 21

Facility name

Surry Nuclear Station/Gravel Neck Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

2509908.18

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

519.1

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 20

Facility name

VCHEC

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

2224.3

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 23

Facility name

Warren County Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

199.68

Comment

Facility reference number

Facility 24

Facility name

Yorktown Power Station

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

495713.27

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

734.37

Comment

W5.1b

(W5.1b) For each facility referenced in W5.1, provide discharge data by destination.

Facility reference number

Facility 1

Facility name

Altavista

Fresh surface water

208.39

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0.2

Comment

Facility reference number

Facility 2

Facility name

Bath County Pumped Storage

Fresh surface water

33846.13

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

Comment

Facility reference number

Facility 3

Facility name

Bear Garden Power Station

Fresh surface water

862.5

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 4

Facility name

Bremo Power Station

Fresh surface water

3606.35

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 5

Facility name

Brunswick Power Station

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

110.16

Comment

Facility reference number

Facility 6

Facility name

Chesapeake Energy Center

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 7

Facility name

Chesterfield Power Station

Fresh surface water

742983.63

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 8

Facility name

Clover Power Station

Fresh surface water

1572.94

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 9

Facility name

Gaston Hydro Power Station

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 10

Facility name

Gordonsville Power Station

Fresh surface water

18.59

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 11

Facility name

Greenville Power Station

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 12

Facility name

Hopewell Power Station

Fresh surface water

93.88

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0.83

Comment

Facility reference number

Facility 13

Facility name

Ladysmith Power Station

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

The Ladysmith Power Station is a no discharge facility

Facility reference number

Facility 14

Facility name

Millstone Nuclear Station

Fresh surface water

22.31

Brackish surface water/Seawater

2521829

Groundwater

0

Third party destinations

0.77

Comment

Facility reference number

Facility 15

Facility name

Mount Storm Power Station

Fresh surface water

1183009.2

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 16

Facility name

North Anna Power Station

Fresh surface water

2253396.66

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 17

Facility name

Possum Point Power Station

Fresh surface water

126685.98

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

6.89

Comment

Facility reference number

Facility 18

Facility name

Remington Power Station

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

The Remington Power Station is a no discharge facility

Facility reference number

Facility 19

Facility name

Roanoke Rapids Power Station

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 20

Facility name

Southampton Power Station

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

The Southampton Power Station is a no discharge facility.

Facility reference number

Facility 21

Facility name

Surry Nuclear Station/Gravel Neck Power Station

Fresh surface water

2509468.09

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 22

Facility name

VCHEC

Fresh surface water

911.9

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

2.65

Comment

Facility reference number

Facility 23

Facility name

Warren County Power Station

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

89.03

Comment

Facility reference number

Facility 24

Facility name

Yorktown Power Station

Fresh surface water

0

Brackish surface water/Seawater

495713.27

Groundwater

0

Third party destinations

909.25

Comment

W5.1c

(W5.1c) For each facility referenced in W5.1, provide the proportion of your total water use that is recycled or reused, and give the comparison with the previous reporting year.

Facility reference number

Facility 1

Facility name

Altavista

% recycled or reused

Less than 1%

Comparison with previous reporting year

About the same

Please explain

Recovered reverse osmosis reject water is sent to cooling tower as make-up water.

Facility reference number

Facility 2

Facility name

Bath County Pumped Storage

% recycled or reused

100%

Comparison with previous reporting year

About the same

Please explain

Bath County is a pumped-storage hydroelectric facility that reuses water during operations to generate power. The percent recycled would be the same as last year despite not being reported as reuse in 2018.

Facility reference number

Facility 3

Facility name

Bear Garden Power Station

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

The cooling tower at Bear Garden reuses water by circulating multiple times before it is discharged, however the water reuse is not metered or measured.

Facility reference number

Facility 4

Facility name

Bremo Power Station

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Water is not reused or recycled at this facility.

Facility reference number

Facility 5

Facility name

Brunswick Power Station

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Boiler condensate is continuously reused, but reuse is not measured.

Facility reference number

Facility 6

Facility name

Chesapeake Energy Center

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Water is not reused or recycled at this facility.

Facility reference number

Facility 7

Facility name

Chesterfield Power Station

% recycled or reused

None

Comparison with previous reporting year

Much lower

Please explain

The Chesterfield Power Station did not report water reuse for the current reporting year.

Facility reference number

Facility 8

Facility name

Clover Power Station

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

The Clover Power Station reuses water in multiple systems and at varying rates. Cooling tower blowdown, boiler blowdown, floor drains, sewage treatment plant discharge is recycled as make-up water to the scrubber system. Water reuse is not metered or monitored, and is highly variable.

Facility reference number

Facility 9

Facility name

Gaston Hydro Power Station

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Water is not reused or recycled at this facility.

Facility reference number

Facility 10

Facility name

Gordonsville Power Station

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Water is not reused or recycled at this facility.

Facility reference number

Facility 11

Facility name

Greensville County Power Station

% recycled or reused

None

Comparison with previous reporting year

This is our first year of measurement

Please explain

The Greensville Power Station became operational in December of 2018. Boiler condensate is continuously reused, but reuse is not metered or measured. The Greensville Power Station became operational in December of 2018.

Facility reference number

Facility 12

Facility name

Hopewell Power Station

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Starting in mid-2018 the Hopewell Power Station began reusing cooling tower blowdown in the lechler spray system, but reuse is not metered or measured.

Facility reference number

Facility 13

Facility name

Ladysmith Power Station

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Water is not reused or recycled at this facility.

Facility reference number

Facility 14

Facility name

Millstone Nuclear Station

% recycled or reused

26-50%

Comparison with previous reporting year

Much higher

Please explain

The Millstone Nuclear Station uses closed-loop cooling water systems for both units.

Facility reference number

Facility 15

Facility name

Mount Storm Power Station

% recycled or reused

100%

Comparison with previous reporting year

Much higher

Please explain

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.

Facility reference number

Facility 16

Facility name

North Anna Nuclear Station

% recycled or reused

100%

Comparison with previous reporting year

About the same

Please explain

The North Anna Nuclear station uses closed-loop cooling and reuses water from the lake. We updated our water accounting practices, and this is the first year that we are accounting for reuse in North Anna Nuclear Station.

Facility reference number

Facility 17

Facility name

Possum Point Power Station

% recycled or reused

Less than 1%

Comparison with previous reporting year

Much lower

Please explain

The Possum Point Power Station reuses filter press filtrate return, and recovered reverse osmosis reject water.

Facility reference number

Facility 18

Facility name

Remington Power Station

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Water is not reused or recycled at this facility.

Facility reference number

Facility 19

Facility name

Roanoke Rapids Power Station

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Water is not reused or recycled at this facility.

Facility reference number

Facility 20

Facility name

Southampton Power Station

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Water is not reused or recycled at this facility.

Facility reference number

Facility 21

Facility name

Surry Nuclear Station/Gravel Neck Power Station

% recycled or reused

Less than 1%

Comparison with previous reporting year

About the same

Please explain

The Surry Nuclear Station recycles water in the secondary system based on continuous operation of the steam generators.

Facility reference number

Facility 22

Facility name

VCHEC

% recycled or reused

11-25%

Comparison with previous reporting year

Much lower

Please explain

The Virginia City Hybrid Energy Center uses waste water effluent to wet ash for dust suppression.

Facility reference number

Facility 23

Facility name

Warren County Power Station

% recycled or reused

11-25%

Comparison with previous reporting year

Much higher

Please explain

The Warren County Power Station re-uses water on-site which reduces municipal water withdrawals. We collect demineralized water that has been used in processes, service water that has been used in processes and condensation from the air. We then treat this water to produce demineralized water to be used on-site.

Facility reference number

Facility 24

Facility name

Yorktown Power Station

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Water is not reused or recycled at this facility.

W5.1d

(W5.1d) 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 Bridgeport Fuel Cell and 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?

External verification of water data is the decision of each individual facility; as of yet, no facility gets external verification for water withdrawals by source.

Water withdrawals – quality

% verified

Not verified

What standard and methodology was used?

External verification of water data is the decision of each individual facility; as of yet, no facility gets external verification for the quality of water withdrawals.

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?

External verification of water data is the decision of each individual facility; as of yet, no facility gets external verification for discharges by destination.

Water discharges – volume by treatment method

% verified

Not verified

What standard and methodology was used?

External verification of water data is the decision of each individual facility; as of yet, no facility gets external verification for discharges by treatment method.

Water discharge quality – quality by standard effluent parameters

% verified

Not verified

What standard and methodology was used?

External verification of water data is the decision of each individual facility; as of yet, no facility gets external verification for discharge quality.

Water discharge quality – temperature

% verified

Not verified

What standard and methodology was used?

External verification of water data is the decision of each individual facility; as of yet, no facility gets external verification for discharge quality.

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?

External verification of water data is the decision of each individual facility; as of yet, no facility gets external verification for recycled water volume.

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	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	The Dominion Energy Environmental Policy Statement articulates that Dominion Energy is fully committed to meeting its customers' energy needs in an environmentally responsible and proactive manner. It is our duty to protect natural and cultural resources—and a good business practice. 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 to do what's right for the communities we serve. The policy statement includes commitments to set a target for reducing withdrawal of cooling water, to promote efficient use of energy and natural resources, including reduced water consumption; and to ensure proper handling and disposal of water materials while pursuing opportunities to reduce carbon emissions and to recycle and reuse waste materials to prevent pollution. 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. The content of our policy statement contains a commitment to 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 commit to stakeholder awareness and education because through the Dominion Energy Foundation we endeavor to improve the physical, social, and economic well-being of the communities served by Dominion Energy. We make a commitment to water stewardship because as we produce energy, our stakeholders expect us to do so by protecting the waters near our operations and infrastructure projects and by using water resources efficiently.

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 business unit leaders and other senior officers oversee the company's environmental performance and sustainability initiatives, which include water-related issues. The Board, which includes our CEO as Chairman, also oversees our long-term growth strategy which addresses the interests of shareholders and other stakeholders, including customers, employees, suppliers, neighbors in the communities we serve and the environment. The rationale behind the CEO's responsibilities is that certain water-related issues 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.
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. In late 2018, the Board formed the Sustainability and Corporate Responsibility Committee, which assists the Board by: <ul style="list-style-type: none"> • Overseeing strategies, activities and policies regarding environmental sustainability, corporate social responsibility and public issues of significance that may affect the company's stakeholders; • Reviewing sustainability and corporate responsibility reports and other significant communications and reporting to stakeholders on environmental and social responsibility initiatives and activities; and • Reviewing company sustainability targets and progress reports in achieving those commitments. The rationale behind the establishment of the Committee was to enable non-employee directors to monitor and oversee the Company's performance as a sustainable organization and responsible corporate citizen.

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: <ul style="list-style-type: none"> • 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. Two key areas of responsibility that support the Board's strategic role are its oversight of risk management and the company's sustainability initiatives. The Board has implemented a risk governance framework designed to help the directors: <ul style="list-style-type: none"> • 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, the company's 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. Dominion Energy's 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 has also established an ESG Working Group, comprised of employees from across different business units, to serve as a strategic partner to the company's senior leadership team on environmental, corporate and social responsibility initiatives. Board-level oversight is achieved through the 5-member Sustainability and Corporate Responsibility (SCR) Committee who oversees the company's approach to environmental, social and reputational matters and addresses them at every regularly scheduled meeting. The Board typically meets eight to ten times a year. The SCR Committee is expected to meet at least three times a year in accordance with its charter.

(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 Executive Officer (CEO)

Responsibility

Both assessing and 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 unit leaders and company officers. Each of these executives oversees a critical part of the company's management and planning for water-related issues, which are discussed in individual meetings with the CEO as well as in meetings of his leadership team as a whole. 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 shareholders on water related issues. For example, during the 2018 second quarter earnings call he discussed Clean Water Act related permitting as it pertains to the Company's long-term growth strategy.

Name of the position(s) and/or committee(s)

Chief Sustainability Officer (CSO)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

As important matters arise

Please explain

In 2018 the CSO had direct responsibility for guiding water-related strategies and managing related risks and opportunities across the company. The CSO had responsibility for a large number of water quality permits and water-related sustainability initiatives. For example, the CSO gave significant guidance on the risk sections of the 2018 Water CDP.

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

As important matters arise

Please explain

The Chief Risk 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. In 2018, the CRO oversaw and reviewed risk analysis and reporting associated with the final regulations under 316(b) of the Clean Water Act and the postponement of compliance dates for the regulation of waste streams under the Effluent Limitation Guidelines (ELG) final rule. For example, in the third quarter Federal Regulatory Energy Commission Financial Report, which the CRO reviews and supports, the Company provides an update on ELG risk. It states that the Environmental Protection Agency is proposing to complete a new rulemaking for ELG waste streams. While the impacts of this rule could be material to Dominion Energy's results of operations, financial condition and/or cash flows the existing regulatory framework allows cost recovery in a large portion of the Company's service area.

Name of the position(s) and/or committee(s)

Other C-Suite Officer, please specify (Chief Administrative & Compliance Officer; Senior Vice President – Corporate Affairs; and Senior Vice President and General Counsel)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

As important matters arise

Please explain

Several additional officers hold responsibilities for water-related issues, as follows: (i) Chief Administrative & Compliance Officer; (iv) Senior Vice President – Corporate Affairs; (v) Senior Vice President and General Counsel; and (vi) each Business Unit Chief Executive Officer. These C-Suite officers report directly to the CEO, and will report to the Board on water-related issues as important matters arise. Each Business Unit Chief Executive Officer has responsibility for helping to develop and implement water-related strategies and managing related risks and opportunities on an ongoing basis, but typically quarterly. For example, in 2018 the Business Unit CEOs had a goal of tracking reportable environmental events, including certain sediment discharges and discharge-related water quality excursions and to establish environmental baselines for 2019. The threshold for success was robust environmental event tracking in each Business Unit.

[W-FB6.4/W-CH6.4/W-EU6.4/W-OG6.4/W-MM6.4](#)

(W-FB6.4/W-CH6.4/W-EU6.4/W-OG6.4/W-MM6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

Yes

[W-FB6.4a/W-CH6.4a/W-EU6.4a/W-OG6.4a/W-MM6.4a](#)

(W-FB6.4a/W-CH6.4a/W-EU6.4a/W-OG6.4a/W-MM6.4a) 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)?

	Who is entitled to benefit from these incentives?	Indicator for incentivized performance	Please explain
Monetary reward	Chief Executive Officer (CEO) Chief Financial Officer (CFO)	Behavior change related indicator Other, please specify (Sustainability disclosure: The goal is to enhance current processes with goal to improve pollution prevention.)	Dominion'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 2018 AIP have a portion of their 2018 AIP payout tied to the accomplishment of environmental goals which may be linked to water stewardship directly or indirectly. Dominion Energy set a diverse suite of 2018 AIP Environmental Goals such as: 1) Execute Business Group specific enhanced environmental management system (EMS) Implementation Plans by end of 2018 2) Track reportable environmental events and establish environmental baselines for 2019 3) Incorporate environmental stewardship/pollution prevention/corporate responsibility target. For the 2018 year, an AIP environmental goal for the Chief Executive Office and Chief Financial Officer was to increase transparency of disclosures and investor communications related to ESG/sustainability and targets. The threshold for success is completion of disclosure activities.
Recognition (non-monetary)	Corporate executive team Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Operating Officer (COO) Chief Purchasing Officer (CPO) Chief Risk Officer (CRO) Chief Sustainability Officer (CSO) Other, please specify (All Dominion Energy employees)	Other, please specify (Dominion Energy IdeAS)	The Dominion Energy IDEAS program (short for Innovation, Development and Solutions), and Chairman's Excellence award, and also the Volunteer of the Year award are examples of ways Dominion Energy encourages our employees to channel their creativity toward the development of innovative products and services geared towards areas such as safety, customer service, and environmental excellence. For example, in 2018, a Chairmen's Excellence finalist winner came up with an idea to use augmented reality to improve engagement with customers on strategic undergrounding. Our Volunteers of the Year are recognized at an annual banquet and on the company web site, as part of their recognition, employees pay it forward with a donation from the company's Charitable Foundation to their non-profit of choice. One 2019 Volunteer of the Year undertook a unique environmental project at the Presquile National Wildlife Refuge. The volunteer noticed that Presquile facilities needed work and offered his help. The U.S. Fish & Wildlife Service managing Presquile was attempting to restore an island to a natural state through reforestation. He proposed and designed a passive drip irrigation system to collect water from the roof of a maintenance structure and run it into a holding tank. The water would then be available to distribute to the individual tree beds. He recruited a talented team of Dominion Energy volunteers to complete the project and they did so in the face of storm-related set backs.
Other non-monetary reward	No one is entitled to these incentives	<Not Applicable>	

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 centralizes communication and implementation of environmental policies through our Environment and Sustainability and Corporate Affairs business groups to ensure direct and indirect activities are consistent with our water policy. We have a clear and consistent environmental policy statement implemented through a recently enhanced environmental management system. Through engagement with a wide range of federal and state trade associations reflecting the business in which we operate, we communicate our positions to industry peers. We establish and revise our positions as issues and regulations evolve and we continuously validate the positions through management briefings. From time to time our position differs from that of a trade group, and we may not agree to sign-on to their positions if they are found to be inconsistent with our water policy and strategy. We do not necessarily subscribe to 100 percent of an organization's beliefs or positions by virtue of membership.

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)

2018 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 strategy is to provide safe, reliable, affordable energy to our customers in a manner that meets or exceeds regulatory compliance requirements and maintains long-term financial viability of the company. Dominion Energy evaluates water-related issues annually as part of the overall business strategy and long-term financial planning. Regulatory changes and opportunities are carefully considered for water quality and water availability, linkages and trade-offs in light of our long-term business objectives. Clean Water Act impingement and entrainment (316 b), thermal (316 a) requirements, and coal combustion residual rules, which relate to water quality and availability were evaluated in the last planning cycle. For each planning cycle, new or expected regulatory changes and opportunities are identified by multiple teams throughout the company, costs and compliance actions are evaluated, and a plan and budget are established to meet or exceed the requirements. Those are tracked and incorporated into quarterly management briefing and business planning discussions. Ultimately, the proposed action plan and budget are considered and incorporated into financial and business strategy planning. This process drives evaluation of business units and power stations for long term viability. The 11-15 year long-term time horizon was chosen because that is the typical duration of a valid water withdrawal permit after which the permit is re-evaluated and renewed.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	Dominion Energy's (DE) strategy is to provide safe, reliable, affordable energy to our customers in a manner that meets or exceeds regulatory compliance requirements and maintains long-term financial viability of the company. DE evaluates water-related issues annually as part of the overall business strategy and long-term financial planning. Some water-related issues that have been evaluated in the last planning cycle include Clean Water Act impingement and entrainment (316 b), thermal (316a) requirements, coal combustion residual rules, as well as effluent limitation guidelines, which relate to water quality and availability. For each planning cycle, new or expected regulatory changes and opportunities are identified, costs and compliance actions are evaluated, and a plan and budget are established to meet or exceed the requirements. We have multiple teams throughout the company that work to identify regulatory changes and opportunities. Those are tracked and incorporated into quarterly management briefing and business planning discussions. Ultimately, the proposed action plan and budget are considered and incorporated into financial and business strategy planning. This process also drives evaluation of individual units and power stations for long term viability. The 11-15 long-term time horizon was chosen because it incorporates the window of regulation implementation and duration of typical state agency water withdrawal permits.
Financial planning	Yes, water-related issues are integrated	11-15	Dominion Energy's (DE) strategy is to provide safe, reliable, affordable energy to our customers in a manner that meets or exceeds regulatory compliance requirements and maintains long-term financial viability of the company. DE evaluates water-related issues annually as part of the overall business strategy and long-term financial planning. Some water-related issues that have been evaluated in the last planning cycle include Clean Water Act impingement and entrainment (316 b), thermal (316a) requirements, coal combustion residual rules, as well as effluent limitation guidelines, which relate to water quality and availability. For each planning cycle, new or expected regulatory changes and opportunities are identified, costs and compliance actions are evaluated, and a plan and budget are established to meet or exceed the requirements. We have multiple teams throughout the company that work to identify regulatory changes and opportunities. Those are tracked and incorporated into quarterly management briefing and business planning discussions. Ultimately, the proposed action plan and budget are considered and incorporated into financial and business strategy planning. This process also drives evaluation of individual units and power stations for long term viability. The 11-15 long-term time horizon was chosen because it incorporates the window of regulation implementation and duration of typical state agency water withdrawal permits

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)

-7

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

-47

Water-related OPEX (+/- % change)

-13

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

-21

Please explain

The company decreased its water-related CAPEX spending by 7% in 2018 due to factors, such as the conclusion of 316(b) studies, and an overall slight decrease in coal ash pond dewatering and treatment costs. We anticipate a 47% decrease in 2019 CAPEX spending for the same reasons. The company decreased OPEX by 13% in 2018 due to the ongoing transition to lower water use for power generation (e.g. retirement of units at Pittsylvania and Mecklenberg), and we anticipate a 21% decrease in 2019 for the same reasons. For 2017 and 2018, expenses supported through asset retirement obligation (ARO) funds have been incorporated into the calculation of capital expense trends. Absent inclusion of ARO supported expenses, CAPEX trends decreased by 87% in 2018. Some ARO expenses such as treatment of coal ash pond water could also be classified as operating expenses. If that calculation approach was used, inclusion of ARO funded expenses would translate to a 12% decrease in OPEX in 2018.

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	Dominion Energy performed a two-degree scenario (2DS) analysis and reported the findings in Climate Report released in November 2018. The focus of the analysis was air quality and included two scenarios and one sensitivity: one in which power sector emissions of GHG fall 60 percent below 2005 levels by 2050; a more stringent scenario in which those emissions fall 80 percent below 2005 levels by 2050; and a demand sensitivity that doubles the level of energy efficiency included in the 80 percent scenario. In broad terms, the 60 percent and 80 percent scenarios both present risks to Dominion that must be managed through our planning process and addressed by company strategy. However, specific water-related issues were not identified during this analysis.

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. Those targets are communicated to the corporate level and approved by management. The targets are communicated annually to the Board of Directors.

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 at our power generation operations. In 2018, Dominion Energy Wexpro nearly completed installation of a produced water treatment system at the Canyon Creek Unit Produced Water Evaporation Facility. This system 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.

Quantitative metric

% increase in water recycling/reuse

Baseline year

2018

Start year

2018

Target year

2023

% achieved

0

Please explain

The produced water treatment system at the Canyon Creek facility was not fully operational in 2018. This is the first year we are 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 percent reduction from 2000 levels in freshwater withdrawn per megawatts to generate electricity 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 27 miles out to sea in the Atlantic.

Baseline year

2010

Start year

2018

End year

2030

Progress

We assess our progress by tracking our 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 water use in the future as we continue to add to our renewable generation portfolio. For example, our Cove Point facility uses air cooling rather than contact water cooling. Similarly, we use air cooled condensers at our Greenville Power Station, which became operational in late 2018. Our measure of success is progressing towards 50 percent reduction from 2000 levels in freshwater withdrawn per megawatts to generate electricity by 2030. In 2018, our total water withdrawal volume decreased by approximately 7% compared to the previous year.

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 acceptably, quality water for the communities where we operate and the surrounding ecosystems. As we make and delivery 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 EEI ESG/Sustainability Metrics Pilot and the CDP water response. Furthermore, we publish our water data in our 2017-2018 Sustainability & Corporate Responsibility Report and on our website.

Baseline year

2010

Start year

2018

End year

2019

Progress

We assess the progress of our promotion of water data transparency in several ways, such as through our stakeholder's ability to see the year to year progress of our water data performance and developments and 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 formally submitting our water response to CDP.

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 percent reduction from 2000 levels in freshwater withdrawn per megawatts to generate electricity 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 27 miles out to sea in the Atlantic.

Baseline year

2000

Start year

2015

End year

2019

Progress

We assess our progress by tracking our water intensity levels year to year. For example, in 2018, we reduced our freshwater consumption intensity levels from 0.36 to 0.12 cubic meters of water per megawatt hour. We measure our success through the increased use of new low-water use technologies and expansion of our renewable energy fleet. We have implemented 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 driven 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 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 the 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 indicator used to assess the progress of our water compliance goal is making sure we are 100% compliant with applicable federal water-related regulations. To evaluate and implement the best technologies for reducing the potential to impinge or entrain aquatic life in water withdrawals at our stations, we have implemented studies, such as cost-benefit, engineering and biological evaluations of cooling water withdrawals from surface waters at 13 power stations (100% of the stations subject to the requirements). These studies are all complete or nearing completion. 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. Linkages and trade-offs

W9.1

(W9.1) Has your organization identified any linkages or tradeoffs between water and other environmental issues in its direct operations and/or other parts of its value chain?

Yes

W9.1a

(W9.1a) Describe the linkages or tradeoffs and the related management policy or action.

Linkage or tradeoff

Tradeoff

Type of linkage/tradeoff

Other, please specify (Increased wastewater treatment, reduced wastewater discharges)

Description of linkage/tradeoff

In April 2015, the EPA published a rule regulating the management of Coal Combustion Residuals (CCR Rule) stored in impoundments (ash ponds) and landfills. Dominion Energy currently directly operates inactive ash ponds, existing ash ponds, and CCR landfills subject to the rule at nine different facilities (e.g. Bremo, Chesapeake, Chesterfield, etc.) and we continue to evaluate other features at our facilities for potential applicability under the CCR Rule. Also in 2015, EPA revised Steam Electric Power Generating Effluent Limitation Guidelines (ELGs) requiring more stringent limits on key wastewaters generated by combusting coal. The linkage is decreased water discharge due to water and waste regulatory requirements under the CCR Rule and ELGs. Dominion Energy reduced wastewater discharges by 4 million gallons per year by converting from wet to dry ash handling at the Chesterfield Power Station.

Policy or action

As part of our water-related business strategy, our power generation facilities which utilize coal as a fuel developed plans to meet the requirements associated with the CCR Rule and the ELGs. By modifying our coal combustion residuals management to meet the CCR Rule, Dominion Energy was able to eliminate or redirect several wastewaters which required additional treatment requirement predicated by the ELGs. 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 in order to meet the new discharge limits. As we dewater the ash ponds and discharge treated water (such as at Possum Point, Chesterfield and Bremo in 2018), from the ponds will reduce over the long-term.

Linkage or tradeoff

Linkage

Type of linkage/tradeoff

Decreased GHG emissions

Description of linkage/tradeoff

The national and international attention to greenhouse gas (GHG) emissions and their relationship to climate change have resulted in federal, regional and state legislative and regulatory action in this area. Dominion Energy's Power Generation businesses has been executing a strategy of Facility Decommissioning and placing facilities in cold reserve. This decision results in reduced water consumption over the long term. In 2018, several units at six of our power stations were placed in cold reserve or were retired, such as Bremo Power Station, Mecklenburg Power Station, and Bellemeade Power Station. Collectively, this represents more than 65% decrease in water consumption at these facilities than had they not been placed in cold reserve.

Policy or action

We have or will be decommissioning units or placing them in cold reserve at multiple facilities over the next several years in part as a result of environmental regulations (e.g., Mercury Air Toxics Rule). The units being decommissioned utilized once-through cooling. In several cases, the new generation facilities being built to meet new demand and replace closing facilities utilize air-cooled condensers which reduce water withdrawal and consumption. The new generation facilities also rely on fuels that are less carbon intensive. On January 18, 2018 we announced that several units in Virginia would be placed in cold reserve. The stations involved include: Bellemeade, in Richmond; Chesterfield Power Station; Bremo, in Fluvanna County; Mecklenburg, in Clarksville; and Possum Point in Dumfries. The company will continue to maintain all required environmental permits for the units and continue to pay property taxes to the localities. These units still could be called on to provide electricity, if needed. Simultaneously, the Company is growing its solar fleet and continuing reliance on zero-emissions nuclear energy. Since 2013, we've helped bring 2,600-megawatts of large-scale solar into operation in nine states. The company is seeking additional relicensing from the U.S. Nuclear Regulatory Commission for all four of its reactors in Virginia at Surry and North Anna power stations, keeping them in operation into the second half of the 21st century.

Linkage or tradeoff

Tradeoff

Type of linkage/tradeoff

Decreased energy efficiency (Potential reduced net generation)

Description of linkage/tradeoff

Since numerous EPA regulations are effective, anticipated and stayed, the Company continuously evaluates various alternatives with respect to its existing power generating units. One environmental compliance option is to retrofit with additional environmental control reduction equipment. Retrofitting with traditional closed-cycle cooling systems (i.e., cooling towers) can reduce water withdrawals, however, such systems can also increase water consumption and reduce net generation output capacity. Closed-cycle

cooling requires the use of additional water circulating pumps and fans that require electricity. This additional use of electricity reduces the net amount of electricity that a facility can supply to the grid. For example, the VCHEC and Warren County Power Station both utilize closed-cooling systems to reduce water withdrawals.

Policy or action

Closed-cycle cooling installation and retrofits are considered on a facility-by-facility basis taking into account site specific factors, safety and security, while weighing the regulation requirements, costs and benefits. Since the installation and retrofits of closed-cycle cooling may increase electricity use, we are working towards eliminating the need for water to be used for cooling as we build new power stations. For example, our newly built Greenville Power Station uses air-cooled condensers which reduce water withdrawal and consumption and uses less electricity than closed-cycle cooling systems.

W10. Verification

W10.1

(W10.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1d)?

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

W11. 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.

W11.1

(W11.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	Executive Vice President Chief Financial Officer and Treasurer; Chief Financial Officer	Chief Financial Officer (CFO)

W11.2

(W11.2) 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

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

Please confirm below

I have read and accept the applicable Terms