Dominion Energy - Water 2018

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 with a portfolio of approximately 26,000 megawatts of generation; 66,600 miles of natural gas transmission, gathering, storage and distribution pipelines; and 64,500 miles of electric transmission and distribution lines. As of December 31, 2017, Dominion Energy serves nearly six million utility and retail energy customers and operates one of the nation's largest underground natural gas storage systems, with approximately one trillion cubic feet of storage capacity. Dominion Energy develops and produces gas reserves in WY, CO and UT. Dominion Energy is a producer and supplier of natural gas liquids at facilities in West Virginia and Maryland.

Dominion Energy remains focused on managing its carbon footprint and ongoing efforts to provide safe, reliable, affordable and clean energy to customers. Over the past two years, Dominion Energy has grown our solar fleet in Virginia and North Carolina from near zero to 1,333 megawatts in service, in construction, or under development. In 2017, the company brought online 466 megawatts of solar generating capacity, a total investment of more than $900 million. Dominion Energy is now the nation's sixth-largest utility owner-operator of solar power. Dominion Energy has partial ownership of two wind power facilities and is working to grow wind generation capacity with the Virginia Offshore Wind Project. The two existing facilities can generate 565 megawatts of electricity to power up to 156,000 homes. 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 practices environmental stewardship. Since 2003, Dominion has donated nearly $32 million to a wide variety of environmental projects across its footprint.

The terms "Dominion Energy," "Company," "we," "our" and "us" are used throughout this report and, depending on the context of their use, may represent any one of the following: the legal entity, Dominion Energy, Inc., one or more of Dominion Energy, Inc.'s subsidiaries or

operating segments, or the entirety of Dominion Energy, Inc. and its consolidated subsidiaries. The information contained in this report is for general information purposes only. While Dominion Energy, Inc. used best efforts 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)
Dominion Energy reports net MWh instead of gross MWh

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	18.5	15376308
Lignite	0	0	0
Oil	2151.6	8.6	435005
Gas	10556.3	42.2	37497407
Biomass	303.31	1.2	1163454
Waste (non-	0	0	0

	Nameplate capacity (MW)	% of total nameplate capacity	Gross generation (MWh)
biomass)			
Nuclear	5508.6	22	44548239
Geothermal	0	0	0
Hydroelectric	286.1	1.1	876168
Wind	282.65	1.1	574297
Solar	1290	5	1953263
Other renewable			
Other non-renewable	0	0	0
Total	25000.66	100	102424141

W-OG0.1a

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

Upstream

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 2017	December 31 2017

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: water withdrawn or used by our Company at our electric generating stations. We have electric transmission facilities and electric distribution centers, but do not track all types of water inputs and outputs for these types of facilities. Individually and collectively, the water use 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.

Exclusion	Please explain
Gas Distribution, Transmission, Gathering, By- Products Extraction, and Storage Operations	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 withdraw and use significantly less water as compared to our electric generation facilities. The Company endeavors to disclose more significant water uses, particularly where water targets are set. Therefore, a small portion of water use associated with gas operations (less than 1% of our water use) is disclosed for 2017, and other gas activities are excluded from this report. Dominion Energy uses groundwater for facility processes and human consumption at the Dominion Energy Cove Point (DECP) liquefied natural gas (LNG) terminal in Maryland. The facility's zero-discharge design is the first of its kind for an LNG facility. Process water is recycled and reused, not released to the environment. The facility entered commercial service for natural gas liquefaction and export in 2018. Water use associated with the operation and construction of the facility is reported to Maryland Department of the Environment in accordance with approvals. For 2017, water use at the site is, and will continue to be, significantly less than water withdrawn or used at our electric generation facilities and is excluded from this report. Water use is increasing, as the facility ramps-up operation in 2018. The Company may report on water use associated with DECP in the future. In 2017, the Company had large natural gas infrastructure projects underway with plans to continue our innovative water use in 2018 and 2019. We reuse hydrostatic testing water by "cascading" it from test section to test section. Capital construction projects use water such as for dust suppression, but these activities use significantly less water as compared to our electric generation facilities. 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.
Call Centers, Office Buildings, and other Administrative Uses	The Company is focusing on the largest known sources of water inputs and outputs: 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, the water use at these facilities is

Exclusion	Please explain
	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.
Greensville Power Station	The Dominion Energy Greensville Power Station will begin commercial operations in 2018. The facility will use air-cooled condensers which reduce water withdrawal and water consumption. The facility is not included in this report because it did not operate in the reporting period.

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 a number of our largest power stations are dependent on freshwater in order to continue operation. We have systems in place to manage variations in water quality. Indirect Use: We are not aware of any current water-related risks in our non-water supply chain that cannot be actively handled and managed, leading to the selection of "neutral". Indirect use is primarily for development of fuels sources. We maintain a robust supply chain system, including but not limited to, alternative suppliers of goods and

	Direct use importance rating	Indirect use importance rating	Please explain
			services should certain suppliers not be able to meet our needs.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Neutral	Direct Use: A number 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 operation. 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.

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

	% of sites/facilities/operations	Please explain
		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 WRI Aqueduct tool. 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.
Produced water associated with your metals & mining sector activities - total volumes	<Field Hidden>	<Field Hidden>
Produced water associated with your oil & gas sector activities - total volumes	76-99	Generally, the volume of all produced water is measured. However no waste water volumes were included for one site in 2017, because the water was reused in the same formation and not released into evaporation ponds.
Water withdrawals quality	51-75	Generally, the quality of municipal water is not monitored. 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,

	% of sites/facilities/operations	Please explain
		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 withdrawals. The majority of stations report discharge volume information through discharge permits or stormwater 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, a station that is in cold reserve such as our Mecklenberg facility monitors discharge once per six months, where are as an operating station, such as Chesterfield power generating facility monitors discharge volumes continuously. Discharge volumes are either measured systems exposed to rainwater and calculated for outfalls from process water systems.
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 discharge permits or through industrial stormwater 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 flows, 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.

	% of sites/facilities/operations	Please explain
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 discharge permits or 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 varies by facility and by discharge point. At the Chesterfield Power Station the treated water discharging from coal ash ponds is monitored 3 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, this data is recorded as a daily average.
Water consumption	100%	Water consumption at our power stations can

	% of sites/facilities/operations	Please explain
– total volume		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.
The provision of fully-functioning, safely managed WASH services to all workers	76-99	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.

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	100%	We release environmental flows in accordance with our federal energy regulatory commission

	% of sites/facilities/operations measured and monitored	Please explain
environmental flows		licenses and National Pollutant Discharge Elimination System (NPDES) permits. Our estimated hydroelectric flows for 2017 in megaliters (ML) per year are as follows: North Anna (North Anna River) = 184,554 ML/yr, Cushaw (James River) = 197,645 ML/yr, Roanoke Rapids (Roanoke River) = 64,300,640 ML/yr, Gaston (Roanoke River) = ,66,977,620 ML/yr, and Bath County (Back Creek) = 826,647 ML/yr), (Little Back Creek) 1340 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	Please select	
Other, please specify	Please select	

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	10977027	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" •less than 50% more = "Much Higher" Our withdrawals this year show a slight decrease from last year, though within in the 25% margin of "about the same", as per the definitions we have outlined above. 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. This year, we are beginning to report water usage by percent equity. The total number itself (not by equity) is 11431290 MLY.
Total discharges	9286866	About the same	Our discharges this year similarly showed a slight decrease, though within the margin of 25% to be called "About the same" consistent with our definitional precedent for reporting to the CDP. Our future water discharge volumes may vary, driven by our future generation portfolio. This year, we are beginning to report water usage by percent equity. The total number itself (not by equity) is 9551604 MLY.
Total consumption	31316	About the same	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

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
			to the source. Our future water consumption volumes may vary, driven by our future generation portfolio. Using the formula Withdrawal = Discharge + Consumption, it is clear that the reported figures do not perfectly balance; this can be attributed to the fact that a number of facilities reuse and recycle water, causing it to potentially get double-counted as a "withdrawal" when it comes into the facility but never as a "discharge" since it does not leave the perimeter of the facility. This year, we are beginning to report water usage by percent equity. The total number itself (not by equity) is 33225 MLY.

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	189	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 disclose more significant water uses, particularly where water targets are set. Therefore, while a small portion of water use associated with gas operations will be disclosed for 2017, other gas activities are excluded from this report. We endeavor to increase our level of disclosure each year. The reported volume of 18.2

	Volume (megaliters /year)	Comparison with previous reporting year %	Please explain
			MGL/year includes water withdrawn and used by multiple extraction facilities as well as one compressor station.
Total discharges – Upstream	31	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 discharge and use significantly less water as compared to our electric generation facilities. The Company endeavors to disclose more significant water uses, particularly where water targets are set. Therefore, while a small portion of water use associated with gas operations will be disclosed for 2017, other gas activities are excluded from this report. We endeavor to increase our level of disclosure each year.
Total consumption – Upstream	6	This is our first year of measurement	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 disclose more significant water uses, particularly where water targets are set. Therefore, while a small portion of water use associated with gas operations will be disclosed for 2017, other gas activities are excluded from this report. We endeavor to increase our level of disclosure each year.
Total withdrawals - Downstream	<Field Hidden>	<Field Hidden>	<Field Hidden>
Total discharges – Downstream	<Field Hidden>	<Field Hidden>	<Field Hidden>
Total consumption – Downstream	<Field Hidden>	<Field Hidden>	<Field Hidden>

	Volume (megaliters /year)	Comparison with previous reporting year %	Please explain
Total withdrawals – Chemicals	<Field Hidden>	<Field Hidden>	<Field Hidden>
Total discharges – Chemicals	<Field Hidden>	<Field Hidden>	<Field Hidden>
Total consumption – Chemicals	<Field Hidden>	<Field Hidden>	<Field Hidden>
Total withdrawals – Other business division	<Field Hidden>	<Field Hidden>	<Field Hidden>
Total discharges – Other business division	<Field Hidden>	<Field Hidden>	<Field Hidden>
Total consumption – Other business division	<Field Hidden>	<Field Hidden>	<Field Hidden>

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		Please select	Please select	

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	7356287	About the same	In 2017, we experienced a slight decrease (~-11%) in freshwater withdrawal volume, falling under our definition for "About the same". 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). This year, we are beginning to report water usage by percent equity. The total number itself (not by equity) is 7626782 MLY.
Brackish surface water/seawater	Relevant	3341779	About the same	In 2017, the company experienced a slight decrease (~-5%) in brackish/seawater withdrawal volume, falling under our definition for "About the same." 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 Narragansett Bay).
Groundwater – renewable	Not relevant	<Field Hidden>	<Field Hidden>	We do not characterize the Company groundwater usage as "renewable", rendering renewable groundwater as not

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
				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	1441	About the same	In 2017, we experienced a slight decrease (~6%) in groundwater withdrawal volume, falling under our definition of "About the same". Just as for fresh/brackish surface water, 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. This year, we are beginning to report water usage by percent equity. The total number itself (not by equity) is 1445 MLY.
Produced water	Relevant	1305	This is our first year of measurement	Our facilities utilize a relatively insignificant volume of produced / process water from any of our operations, indicating that produced / process water is not relevant to our operations.
Third party sources	Relevant	4930	About the same	A number of our stations, including our Brunswick and Hopewell power stations, obtain

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
				the vast majority of their water from third-party sources, primarily municipalities.

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	5944278	About the same	Fresh surface water discharge is relevant to our operations as a number of our facilities, especially those such as Chesterfield Power Station and North Anna Power Station which are located on rivers, withdraw very large amounts of river water and so need a place to discharge all of this water, finding an easily accessible source through fresh surface water discharge and thereby allowing these stations to continue operation. For CY2017, we experienced a decrease (~-17%) in fresh surface water discharge, though we continue to define changes within 25% as “about the same”. If water withdrawals and consumption continue to decrease, then it is likely and logical that fresh surface water discharge will also continue to decrease, as there are few changes at the operational level. This year, we are beginning to report water usage by percent

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
				equity.
Brackish surface water/seawater	Relevant	3342076	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 Narragansett Bay). These facilities require somewhere to discharge their large amounts of withdrawn brackish water / seawater, and so the ability to discharge to these bodies of water allows these stations to continue operation. For CY2017, we experienced a very slight decrease (~-2%) in brackish/seawater discharge, falling under our definition of "About the same". Just as with fresh surface water discharge, 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	20	This is our first year of measurement	None of our power stations currently undergo groundwater injections, indicating that groundwater injection / discharge is not relevant to our operations, nor has it been in previous reporting years. A very small amount of groundwater injection to water disposal wells (20 megaliters/year) occurs at our gas extraction facilities.
Third-party destinations	Relevant	448	About the same	Just as with fresh surface water and brackish water, our facilities

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
				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 CY2017, we experienced a slight increase (~8%) in discharge to third-party destinations, falling under our definition of "About the same".

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	Less than 1%	About the same	At different facilities, water is reused and recycled 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 change from last year in %recycled is within the established 25% definition for "About the same". 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. 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 and reused	Comparison with previous reporting year	Please explain
		(% recycled = recycled water volume / (total withdrawal volume + recycled water volume))

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%	This is our first year of measurement	Dominion Energy has a goal to recycle/reuse water in 2018, particularly in the arid west. Dominion Energy's Hastings Complex, which is a natural gas liquids processing facility in West Virginia reuses water, but does not monitor the quantity of the reuse.
Downstream	<Field Hidden>	<Field Hidden>	<Field Hidden>
Chemicals	<Field Hidden>	<Field Hidden>	<Field Hidden>
Other business division	<Field Hidden>	<Field Hidden>	<Field Hidden>

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	Numerator: water aspect	Denominator: unit of production	Comparison with previous reporting year	Please explain
0.36	Freshwater consumed	MWh	About the same	Our water intensity is .36 cubic meters of water per megawatt hour. In order to fully characterize our water use, track our process in improving our water use, and align our overall sustainability tracking; Dominion Energy revised our methods for calculating water intensity in 2017. For 2017, our water intensity reporting will reflect 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. For the first time in 2017, our water intensity reporting includes power generation from all renewable sources, including wind, hydropower and solar. We also shifted our water intensity metric from “all water withdrawn” to “freshwater consumed” and “freshwater withdrawn”. This removes some of our saltwater and brackish water withdrawals from the calculation, but aligns better with a number of utility company sustainability reports.
87.44	Freshwater	MWh	About the	Our water intensity is 8.74 cubic

Water intensity value	Numerator: water aspect	Denominator: unit of production	Comparison with previous reporting year	Please explain
	withdrawn		same	meters of fresh water withdrawn per megawatt hour.

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

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

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; currently, the Virginia City Hybrid Energy Center requires municipal water data from surrounding municipalities, incentivized through contract and professional courtesy.

Impact of the engagement and measures of success

At the Virginia City Hybrid Energy Center (VCHEC), the information obtained from the municipal supplier incorporates any activities that could impact the water supply, including maintenance activities, volumetric discharges, and equipment replacements. This information 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 operation.

Comment

We engage our water suppliers to ensure that there is sufficient water quantity and quality to meet Dominion Energy’s operational and regulatory requirements.

W1.4b

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

Type of engagement

Other

Details of engagement

Other, please specify (Municipal Data)

% of suppliers by number

1-25

% of total procurement spend

1-25

Rationale for the coverage of your engagement

The VCHEC relies on municipal water for its operation, and so changes in the municipal supply may affect station generation.

Impact of the engagement and measures of success

At the VCHEC, the information obtained from the municipal supplier incorporates any activities that could impact the water supply, including maintenance activities, volumetric discharges, and equipment replacements. This information 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 operation.

Comment

The VCHEC power station requires nearby municipalities to report on raw water usage and other issues that may affect the station.

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

James River

Type of impact driver

Physical

Primary impact driver

Pollution incident

Primary impact

Upfront costs to adopt/deploy new practices and processes

Description of impact

A power station experienced water related incidents during which oil, coal fines, industrial runoff, and sediment runoff entered surface waters.

Primary response

Pollution abatement and control measures

Total financial impact

Description of response

The discharges were contained and affected areas were remediated. Water quality sampling was conducted to further identify the root cause of the industrial runoff. In one area, we are in the process of installing a system to intercept potential future discharges to surface waters. The financial impact from this pollution incident in 2017 was not material as defined by the SEC for the companies' financial reporting. As compared to the overall obligation for ash pond closure and landfill closure, this remediation is a localized, small-scale project. For comparison, details of our financial obligation for ash pond closure and landfill closure are provided here. In 2015, Virginia Power recorded a $386 million Asset retirement obligation (ARO) related to future ash pond and landfill closure costs. In 2016, Dominion Energy Virginia Power recorded an increase to this ARO of $238 million. In April 2017, the Virginia Governor signed legislation into law requiring that Dominion Energy conduct an assessment of closure alternatives for the ash ponds at four stations, to include an evaluation of excavation for recycling or off-site disposal, surface and groundwater conditions and safety. We completed the assessments and provided the report on December 1, 2017. It is available on the Company website.

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

W2.2a

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

Row 1

Total number of fines

1

Total value of fines

7500

% of total facilities/operations associated

1.6

Number of fines compared to previous reporting year

About the same

Comment

This is all water-related fines for our electric power generation facilities in 2017.

W2.2b

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

Type of penalty

Fine

Financial impact

7500

Country/Region

United States of America

River basin

Other, please specify (York River Basin)

Type of incident

Spillage, leakage or discharge of potential water pollutant

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

The leachate tank overflowed into the center settling pond due to a broken water level light. The light has since been fixed and is now again operational.

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 on a routine basis to confirm continued compliance at each of our stations subject to state and federal regulations. Training, self-assessment, and overall environmental compliance extend to components of our value chain

through specific systems such as contractor training and environmental due diligence during asset acquisition.

The company maintains current NPDES permits to ensure 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 permit process, the state 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 TMDL or 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 discharges 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 operate inactive ash ponds, existing 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 Bremo 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 dewatering water associated with closure of the ponds is treated.

Also in 2015, EPA issued revised Steam Electric Power Generating Effluent Guidelines 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 dewatering coal ash ponds at our Chesterfield Power Station, and thereafter dewatering of the pond went through a multi-stage treatment system before being tested and released. This was one step in eventual closure of the ash ponds at the station. 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 ash. 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.

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
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	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

Potential water pollutant	Description of water pollutant and potential impacts	Management procedures	Please explain
	acceptable.		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.
Coal combustion residuals	We are in the process of closing 11 ash ponds at four coal-fired power stations in Virginia. We plan to close these ponds, with the intent to eliminate future releases of water. Coal combustion residuals (CCR) or coal ash consists of many components– mostly silicon, iron, and aluminum with trace amounts of arsenic, selenium, mercury, boron,	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. 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

Potential water pollutant	Description of water pollutant and potential impacts	Management procedures	Please explain
	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 filtration process incorporating state-of-the-art science.		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 agency, 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. All closed ponds will also be subject to the dam safety requirements and regular inspections from licensed engineers. 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

Potential water pollutant	Description of water pollutant and potential impacts	Management procedures	Please explain
			ponds are closed. The Company is committed to taking corrective actions to remediate any groundwater impacts that we find.
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 EMS supports hydrocarbon pollutant minimization through environmental compliance plans, monitoring applicable parameters, biological studies, written procedures for consistency, self-assessments, internal auditing, staff training, and structural best management practices.
Radiation	A radiological release from our nuclear plants would have the capacity to adversely 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

Potential water pollutant	Description of water pollutant and potential impacts	Management procedures	Please explain
			safety. When it reviews a reactor license application, the NRC analyzes the possible impacts to people, animals, plants and sea life. This analysis is part of an Environmental Impact Statement the NRC publishes that also addresses ways to minimize the impacts. The NRC requires nuclear power plants to be designed in a way that keeps radioactive material releases as low as reasonably achievable. To comply with NRC rules, we must also: 1) comply with radiation dose limits for the public, 2) monitor both what is released and the environment around the plant, and 3) report monitoring results annually to the NRC. These reports are posted on the NRC website. 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

Potential water pollutant	Description of water pollutant and potential impacts	Management procedures	Please explain
			for consistency, self-assessments, internal auditing, staff training, and structural best management practices.
Contaminated cooling water	Both closed and open-loop cooling systems have the potential to become contaminated by collocated systems or by concentrating ambient environmental pollutants (e.g. bacteria). The pollutants and resulting impacts of contaminated cooling water vary by pollutant contaminating the cooling water. For example, concentrated bacteria could render shellfish not appropriate for human consumption, whereas hydrocarbons could have direct impacts on aquatic systems.	Compliance with effluent quality standards	Implementation of our EMS supports 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. Also, the National Pollutant Discharge Elimination System, permit process and permit-required monitoring are used to ensure discharges of cooling water 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.

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 (which include compliance with water standards) and the compliance methodologies that are in place for such requirements. In addition we perform self-assessments on a routine basis to confirm continued compliance at each of our stations subject to state and federal regulations. Training, self-assessment, and overall environmental compliance extend to components of our value chain through specific systems such as contractor training and environmental due diligence during asset acquisition.

The company maintains current National Pollutant Discharge Elimination System (NPDES) permits to ensure discharges 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. Discharge water quality monitoring data from the current permit cycle, as well as, any additional sampling for the whole host of parameters listed in 40 CFR 401.15 may be used to ensure that subsequent permits limit the discharge of pollutants.

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 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 facilty.

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

Potential water pollutant	Business division	Description of water pollutant and potential impacts	Management procedures	Please explain
Hydrocarbons	Upstream	Hot process oil, lube oil, and natural gas liquids are stored and handled. The potential impact from a release of these substances could be contamination of groundwater resources.	Measures to prevent spillage, leaching and leakages Emergency preparedness	The Company establishes and follows a comprehensive groundwater protection plan at each relevant facility, and therefore employs measures such as installation and maintenance of impermeable secondary containment structures in areas where hydrocarbons are stored.
Other, please specify (Waste Streams)	Upstream	Various waste streams generated during the maintenance and operation of the natural gas extraction and compression equipment are accumulated in designated locations.	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 hydrocarbons are stored.

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 to 10 years

Type of tools and methods used

Tools on the market
Enterprise Risk Management
Other

Tools and methods used

Internal company methods
Other, please specify (Probabilistic modeling tools)

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.

Supply 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?

>10 years

Type of tools and methods used

Other

Tools and methods used

Internal company methods
National-specific tools or standards

Comment

The power generation stations and gas extraction facilities evaluate 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	For relevant company facilities, these risks are assessed as needed at the facility level at least as frequently as during regulatory water permit modification or renewal planning periods, or as forecasts advise.
Water quality at a basin/catchment level	Relevant, sometimes included	For relevant company facilities, these risks are assessed as needed at the facility level at least as frequently as during regulatory water permit modification or renewal planning periods, or as forecasts advise. Consideration for watershed-level water quality restoration requirements, such as permit limits dictated by total maximum daily loads, are an integral part of the water permits in watersheds with compromised water quality.

	Relevance & inclusion	Please explain
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, sometimes included	For relevant company facilities, these risks are assessed as needed at the facility level at least as frequently as during regulatory water permit modification or renewal planning periods, or as forecasts advise water-related issues considered for direct operations include any relevant conflicts concerning water resources at a local level. An example of a water resources conflict that may be considered is a situation of competing uses of water for a waterbody with a regulatory limit on use. We actively communicate with stakeholders on specific water-related issues.
Implications of water on your key commodities/raw materials	Not relevant, explanation provided	We are not aware of any current water-related risks in our non-water supply chain 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.
Water-related regulatory frameworks	Relevant, always included	For relevant company facilities, these risks are assessed as needed at the facility level at least as frequently as during regulatory water permit modification or renewal planning periods, or as forecasts advise. 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. We regularly monitor and engage in the regulatory process associated with existing and anticipated water-related regulations. Water availability and quality associated with our fuel supply chain are not explicitly addressed during risk assessments.
Status of ecosystems and habitats	Relevant, always included	For relevant company facilities, these risks are assessed as needed at the facility level at least as frequently as during regulatory water permit modification or renewal planning periods, or as forecasts advise. Water-related issues considered for direct operations include the status of ecosystems and habitats. 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.

	Relevance & inclusion	Please explain
Access to fully-functioning, safely managed WASH services for all employees	Not relevant, explanation provided	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.
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.
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. Additionally, our employee staffing level and skill sets are considered when considering and planning for specific water-related issues.
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.
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. This commitment is described in detail in our annual Corporate Citizenship and Sustainability Report.

	Relevance & inclusion	Please explain
NGOs	Relevant, always included	We work hard to ensure we are aware of all public opinions related to our business. 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.
Other water users at a basin/catchment level	Relevant, sometimes included	We operate electricity generating stations on water bodies that are also used by other entities including municipal and industrial users. These other uses are considered to evaluate any potential conflict between uses as they relate to individual power stations.
Regulators	Relevant, always 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 and gas operations. We regularly monitor and engage in the regulatory process associated with existing and anticipated water-related regulations. We maintain strong, professional relationships with our local, state, and federal regulators.
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, that includes River Basin Management Authorities. We regularly monitor and engage in the regulatory process associated with existing and anticipated water-related regulations.
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. 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.
Suppliers	Relevant, always included	We manage risks in our water supply chain by ensuring adequate supply and quality by contract negotiations, including the identification and procurement of 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.
Water utilities at a local level	Relevant, always	We rely on utility and industrial suppliers for all or a portion of water used at some of our electricity generating stations.

	Relevance & inclusion	Please explain
	included	These water providers are considered in facility-specific operational evaluations on an as-needed basis for direct operations. We manage our risks as described in the "Suppliers" section above.
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.

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 corporate risk management process, which culminates in the issuance of the corporate Strategic Risk Management Annual Enterprise Risk Assessment Report, is an enterprise wide analysis led by the Corporate Strategic Risk team and involves representatives from all Business Groups. 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. Water-related risk is identified and assessed during contract negotiation with suppliers, during facility-level annual budgeting, and during the water permitting process with state agencies. Responses to water-related risks vary depending on the risk. Responses range from budgeting adjustments to infrastructure improvements and operational changes.

We have several Company officers with responsibilities for climate-related issues, which include water-related issues. However, every officer at Dominion Energy is responsible for compliance with environmental laws and regulations for their areas of responsibility.

While the Board oversees risk policies and implementation of risk-related procedures, management is charged with managing risk. The Board receives and discusses reports regularly from management, including the Chief Risk Officer, Chief Information Officer and Chief Environmental Officer, who are involved in the risk assessment and risk management functions on a daily basis. These reports pertain to topics that are pertinent to the company's operations, including safety, environmental, human resources, employees, customers, and social issues, as well as financial performance, economic issues and long-term strategy

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. For our definition of "substantive financial or strategic impact", we define such impact to be any change in the determination of investors in buying, holding, and selling Dominion Energy securities. As such, the metric of "substantive change" is simply whether or not a reasonable investor would attach importance to the change in question. We set this threshold very tightly; *any* change to which a reasonable investor would attach importance when considering Dominion securities counts as an issue with the potential to cause a substantive strategic impact. This is applicable primarily to our direct operations, though it can occasionally

apply to our indirect operations as issues that affect Dominion Energy service areas. For example, heat waves can cause a spike in electricity demand. As an example of a considered water-related substantive impact, our 2017 10-K Annual Report identifies storms, earthquakes, and floods 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	26	76-99	Although we are defining 26 of our facilities as under water risk, we acknowledge that 24 of these facilities are in the eastern United States, a relatively water-abundant area. Even the greatest water risks in the eastern U.S. may not be comparable to those present in areas such as the arid west. Further, this excludes our hydroelectric facilities, as they are located on large reservoirs unlikely to be severely affected by drought.

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

6

% company-wide facilities this represents

1-25

Production value for the metals & mining activities associated with these facilities

<Field Hidden>

% 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

Please select

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

Country/Region

United States of America

River basin

Roanoke River

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

<Field Hidden>

% 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

Please select

% company's total global revenue that could be affected

1-25

Comment

Certain facilities in the River Basin may be subject to significant change associated with the Clean Water Act 316(b) Cooling Water Intake and 316(a) Thermal Discharge Rules based on current station sampling. 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.

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

<Field Hidden>

% 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

Please select

% 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

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

<Field Hidden>

% 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

Please select

% 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 additional reduced water allocations.

Country/Region

United States of America

River basin

Delaware 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

<Field Hidden>

% 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

Please select

% company's total global revenue that could be affected

1-25

Comment

One power generating facility in the Delaware River Basin is subject to drought risk. The risk to the facility is potential curtailment of water usage.

Country/Region

United States of America

River basin

Other, please specify (Chowan River)

Number of facilities exposed to water risk

2

% company-wide facilities this represents

1-25

Production value for the metals & mining activities associated with these facilities

<Field Hidden>

% 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

Please select

% company's total global revenue that could be affected

1-25

Comment

One power generating facility in the Chowan River Basin are 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

<Field Hidden>

% 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

Please select

% 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

<Field Hidden>

% 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

Please select

% 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.

Country/Region

United States of America

River basin

Colorado River (Pacific Ocean)

Number of facilities exposed to water risk

2

% company-wide facilities this represents

1-25

Production value for the metals & mining activities associated with these facilities

<Field Hidden>

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

Please select

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

1-25

% company's total global revenue that could be affected

1-25

Comment

Two of the extraction sites in the Colorado River Basin fall within areas determined to have high baseline water stress using the WRI Aqueduct tool. However, water extraction is minimal and constitutes less than 1% of the water consumption reported in Dominion Energy's CDP response. Water comes from our extraction wells and their production processes; however, these are not critical to further Dominion Energy's overall production nor further development.

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 (Mulitple basins; James and Potomac)
Multiple Basins - James River and Potomac River

Type of risk

Regulatory

Primary risk driver

Tighter regulatory standards

Primary potential impact

Increased capital costs

Company-specific description

In September 2015, the EPA promulgated revisions to the Effluent Limitations Guidelines (ELG) for the Steam Electric Power Generating Category. The final rule establishes new technology-based discharge limits for several waste streams that exist at some of our facilities. 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. The Company plans to comply with the new discharge limits and we have begun implementing them. In April 2017, the Virginia Governor signed legislation into law that places a moratorium on the VDEQ issuing solid waste permits for closure of ash ponds at Virginia Power's Bremo, Chesapeake, Chesterfield and Possum Point power stations until May 2018. The law also required Virginia Power 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 on December 1, 2017. To identify and assess this risk, the Company uses internal company methods, including but not limited to regulatory agency engagement, and trade group participation. 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

1 - 3 years

Magnitude of potential impact

Low

Likelihood

More likely than not

Potential financial impact

Explanation of financial impact

While the impacts of this rule could be material to Dominion Energy's operations, financial condition and/or cash flows, the existing regulatory framework in Virginia provides rate recovery mechanisms that could substantially mitigate any such impacts.

Primary response to risk

Engage with regulators/policymakers
Engage with regulators/ policymakers, Engage with local communities, Increased capital expenditure, Increased investment in new technology

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

Cost of response

Explanation of cost of response

The cost of response varies by station.

Country/Region

United States of America

River basin

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

Type of risk

Physical

Primary risk driver

Please select

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.

Timeframe

1 - 3 years

Magnitude of potential impact

Low

Likelihood

About as likely as not

Potential financial impact

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, and we have contingency plans and storm preparation and recovery plans that are routinely assessed and improved based upon experience during drills. 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. In June of 2016, the Dominion Foundation donated $50,000 to the American Red Cross to help West Virginia communities devastated by traumatic

flooding. In addition, Dominion Energy employees donated their time as well as food, clothing and other much-needed items. The company coordinated relief efforts near the town of Clendenin and Dominion Energy's Cornwell Compressor Station. Dominion employees removed debris from nearly 50 homes along the road near the compressor station.

Cost of response

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.

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)
Drought and Other: Climate Change

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Our operations could be adversely affected and their physical plant placed at greater risk of damage should changes in global climate produce, among other possible conditions, unusual variations in temperature and weather patterns, resulting in more intense, frequent, and extreme weather events, abnormal levels of precipitation and, for operations located on or near coastlines, a change in sea level or sea temperatures.

Timeframe

Unknown

Magnitude of potential impact

Low

Likelihood

Unlikely

Potential financial impact

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

Other, please specify (Event Planning)

Description of response

Our facilities are designed to encounter severe weather and other natural events, which they have been subject to over the last century without significant impact. Our generating plants have drought/flood plans, and storm preparation and recovery plans that are routinely assessed and improved based upon experience during drills. 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

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.

Country/Region

United States of America

River basin

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

Type of risk

Regulatory

Primary risk driver

Tighter regulatory standards

Primary potential impact

Increased capital costs

Company-specific description

Cooling Water Intake Regulations 316(b): Based on the final rule, some of Dominion Energy's facilities will likely have to install and/or modify existing infrastructure to meet compliance requirements. 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

1 - 3 years

Magnitude of potential impact

Medium-high

Likelihood

Very likely

Potential financial impact

Explanation of financial impact

The Company is in the process of assessing the risk through biological and technology studies. The financial impact may be determined as a result of the studies

Primary response to risk

Engage with regulators/policymakers
Engage with regulators/ policymakers, Engage with local communities, Increased capital expenditure, Increased investment in new technology

Description of response

We have been actively engaged with our state regulators responsible for the implementation of this regulation. We have initiated planning and compliance activities at our facilities subject to these regulations and have plans in place to ensure compliance.

Cost of response

Explanation of cost of response

The cost of response varies by station.

Country/Region

United States of America

River basin

James River

Type of risk

Regulatory

Primary risk driver

Tighter regulatory standards
Increased capital costs and Reduction or disruption of production capability

Primary potential impact

Increased capital costs

Company-specific description

One power generation facility can be affected by the regulatory controls to ensure sustainable groundwater use in the Virginia Eastern Groundwater Management Area. Each time the

groundwater withdraw permit is renewed, which is every 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-low

Likelihood

About as likely as not

Potential financial impact

Explanation of financial impact

The cost of responding through regulator engagement is low. Should alternate water supplies or capital expenditures be required in the future, the associated cost has not been fully evaluated.

Primary response to risk

Engage with regulators/policymakers

Description of response

We have been actively engaged with our state regulators responsible for the implementation of this regulation.

Cost of response

Explanation of cost of response

The cost of responding through regulator engagement is low. Should alternate water supplies or capital expenditures be required in the future, the associated cost has not been fully evaluated

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Country/Region

United States of America

River basin

Other, please specify (Long Island Sound)

Type of risk

Physical

Primary risk driver

Please select

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

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 concern to the Long Island Sound community, anglers, commercial fishermen, and regulators.

Timeframe

More than 6 years

Magnitude of potential impact

Medium-low

Likelihood

About as likely as not

Potential financial impact

Explanation of financial impact

Dominion Energy anticipates that it will have to install impingement control technologies at some power generating facility’s that have once-through cooling systems. Dominion Energy is currently evaluating the need or potential for entrainment controls under and these decisions will be made on a case-by-case basis after a thorough review of detailed biological, technology, cost and benefit studies

Primary response to risk

Other, please specify (Planning)

Description of response

Various life history stages of Winter Flounder have been monitored at the facility since 1976 to determine what effect, if any, the power generating facility may have on the local Niantic River population of Winter Flounder. Results from the 2017 Winter Flounder studies suggest that power generating operations have had minimal effects on Winter Flounder biomass in the Niantic River. Declines in stock size have been greatly evident on a regional basis, including Long Island Sound, Rhode Island and all other Southern New England waters. Impacts associated with recent power generating operations on the local lobster population were assessed by comparing results of a 2017 study by Dominion Energy biologists to data collected from 1978 through 2016. Emphasis has been placed on assessing long-term trends in the abundance and population characteristics of lobsters. Results from the lobster monitoring program indicate the local lobster population abundance was stable or increasing from 1978 to 1999, but has since declined precipitously through the recent sampling years. Declines in abundances of lobsters observed in pots and in trawl catches from 2000 to 2017 were unrelated to the facility operations and were attributed to an increase in mortality associated with ambient seawater temperature rise and temperature mediated stressors that include a shell disease affecting regional lobster populations from eastern Long Island Sound to the Gulf of Maine.

Cost of response

Explanation of cost of response

Dominion Energy anticipates that it will have to install impingement control technologies at some power generating facility's that have once-through cooling systems. Dominion Energy is currently evaluating the need or potential for entrainment controls under and these decisions will be made on a case-by-case basis after a thorough review of detailed biological, technology, cost and benefit studies

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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

Increased water scarcity
Declining water quality, Increased water scarcity, Increased water stress

Primary potential impact

Supply chain disruption

Company-specific description

The inability to obtain water upstream of our electric utility in the value chain (such as coal mining and oil shipments) could lead to a shortage of supply for fuel, needed for continued power station operation. The lack of fuel, as one of our major supplied goods, would count as the disruption of our supply chain.

Timeframe

1 - 3 years

Magnitude of potential financial impact

Medium

Likelihood

Likely

Potential financial impact

Explanation of financial impact

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

Primary response to risk

Promote investment in infrastructure and technologies for water saving, re-use and recycling among suppliers
Supplier water management incentives, Promote investment in infrastructure and technologies for water saving, re-use and recycling among suppliers

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. For example, our nuclear plants have no need for coal shipments (which could be affected by water scarcity in Appalachia), while our Mount Storm power station is dependent on incoming coal.

Cost of response

Explanation of cost of response

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

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

Please select

Primary potential impact

Increased production costs due to changing input prices from supplier

Company-specific description

In the Chowan basin, one 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 would result from a reduced groundwater allocation.

Timeframe

>6 years

Magnitude of potential financial impact

Low

Likelihood

About as likely as not

Potential financial impact

Explanation of financial impact

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

Primary response to risk

Other, please specify (Alternative supplies or technology)

Description of response

We will maintain allocations for an alternate water supply.

Cost of response

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
Both improving water efficiency in operations and reduced impacts of product us on water resources.

Company-specific description & strategy to realize opportunity

Water Efficient Generation: Decisions regarding generation type can influence water use and demand. 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 example, air cooled condensers) for new generation, and will further reduce water use in the future as we continue to add to our renewable generation portfolio.

Estimated timeframe for realization

>6 years

Magnitude of potential financial impact

Low

Potential financial impact

Explanation of financial impact

As compared to other Company expenditures such as for fuel and capital improvements, water costs for power generation are generally low.

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. For example, some facilities may have opportunities to reclaim municipal wastewater where available, feasible, and appropriate. Additionally, stormwater collection and harvesting may also serve as an opportunity to use alternative water supplies. These opportunities are implemented at certain company facilities, as feasible. 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

Unknown

Potential financial impact

Explanation of financial impact

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

Type of opportunity

Other

Primary water-related opportunity

Other, please specify (Transparency)

Company-specific description & strategy to realize opportunity

We publish water use metrics and data on the company website: www.dominionenergy.com. We also publish a Sustainability and Corporate Responsibility Report, in an online format which includes water use data. 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.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Unknown

Potential financial impact

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 dominionenergy.com.

Type of opportunity

Other

Primary water-related opportunity

Other, please specify (Employee Engagement)

Company-specific description & strategy to realize opportunity

Existing Dominion Energy office buildings are being upgraded with low flow toilets and sinks that are sensor-activated to reduce water usage in employee work locations. New company office buildings are LEED-certified and are constructed with low-water consumption.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Unknown

Potential financial impact

Explanation of financial impact

Building construction/retrofit policies and water use data provides information that can be used in internal communications to engage employees in the management of water.

Type of opportunity

Other

Primary water-related opportunity

Other, please specify (Community Engagement)

Company-specific description & strategy to realize opportunity

In addition to employee led 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

Unknown

Potential financial impact

Explanation of financial impact

Water-related issues provide opportunities for community leadership and local level stakeholder engagement. We regularly engage communities when citing large infrastructure projects and new power stations we hold public meetings, we engage landowners. There are potential cost savings by fulling vetting plans and making the most informed siting decisions for new construction. In 2017, the Dominion Energy Charitable Foundation made grants totaling $2.1 million to support environmental stewardship and education. Some water-related grants included the following:$100,000 to support the Connections to Long Island Sound Exhibit" at Mystic Aquarium in Connecticut; $50,000 to the Center for Natural Capital, in Orange County, VA, for their 2017 "StreamSweepers" program; $50,000 to the Elizabeth River Project, in Portsmouth, VA, to support efforts at their Paradise Creek Nature Park; $40,000 to Virginia Institute of Marine Science Foundation, to support training "citizen scientists" ; $35,000 to Western Pennsylvania Conservancy to support a longstanding Mini Grants awards program.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

Recent regulatory changes at the federal level regarding coal ash storage and disposal have led one Dominion Energy facility to save substantial amounts of water usage by converting from wet to dry ash handling.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Unknown

Potential financial impact

Explanation of financial impact

The ash handling process is no longer water-dependent, and this has an environmental compliance impact. Conveyors move the ash to a silo whereas in the past water was used to transport the ash to the pond. While Dominion Energy operates its ash ponds and landfills in

compliance with applicable state safety regulations, a release of coal ash with a significant environmental impact, such as the Dan River ash basin release by a neighboring utility, could result in remediation costs, civil and/or criminal penalties, claims, litigation, increased regulation and compliance costs, and reputational damage, and could impact the financial condition of Dominion Energy - Virginia Power.

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 15

Facility name (optional)

Bear Garden Power Station

Country/Region

United States of America

River basin

James River

Latitude

37.694608

Longitude

-78.290609

Primary power generation source for your electricity generation at this facility

Gas

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

2972

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

392

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

2580

Comparison of consumption with previous reporting year

About the same

Please explain

Facility reference number

Facility 16

Facility name (optional)

Bellemeade Power Station

Country/Region

United States of America

River basin

James River

Latitude

37.496903

Longitude

-77.432519

Primary power generation source for your electricity generation at this facility

Gas

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

276

Comparison of withdrawals with previous reporting year

Much lower

Total water discharges at this facility (megaliters/year)

121

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

155

Comparison of consumption with previous reporting year

Much lower

Please explain

Facility reference number

Facility 3

Facility name (optional)

Bremo Power Station

Country/Region

United States of America

River basin

James River

Latitude

37.709759

Longitude

-78.287583

Primary power generation source for your electricity generation at this facility

Gas

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

36460

Comparison of withdrawals with previous reporting year

Much lower

Total water discharges at this facility (megaliters/year)

36961

Comparison of discharges with previous reporting year

Much lower

Total water consumption at this facility (megaliters/year)

3

Comparison of consumption with previous reporting year

Lower

Please explain

This facility discharged treated coal ash pond water in 2017.

Facility reference number

Facility 2

Facility name (optional)

Chesterfield Power Station

Country/Region

United States of America

River basin

James River

Latitude

37.382016

Longitude

-77.383579

Primary power generation source for your electricity generation at this facility

Gas
Gas and coal

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

944240

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

901211

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

10841

Comparison of consumption with previous reporting year

About the same

Please explain

This facility discharged treated coal ash pond water in 2017.

Facility reference number

Facility 1

Facility name (optional)

Surry Nuclear Station

Country/Region

United States of America

River basin

James River

Latitude

37.165549

Longitude

-76.697824

Primary power generation source for your electricity generation at this facility

Nuclear

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

2782812

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

2782379

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

589

Comparison of consumption with previous reporting year

About the same

Please explain

Facility reference number

Facility 5

Facility name (optional)

Altavista Power Station

Country/Region

United States of America

River basin

Roanoke River

Latitude

37.118231

Longitude

-79.275603

Primary power generation source for your electricity generation at this facility

Biomass

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

802

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

90

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

804

Comparison of consumption with previous reporting year

Lower

Please explain

Facility reference number

Facility 6

Facility name (optional)

Clover Power Station

Country/Region

United States of America

River basin

Roanoke River

Latitude

36.870154

Longitude

-78.704596

Primary power generation source for your electricity generation at this facility

Coal - hard

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

2113

Comparison of withdrawals with previous reporting year

Much lower

Total water discharges at this facility (megaliters/year)

311

Comparison of discharges with previous reporting year

Much lower

Total water consumption at this facility (megaliters/year)

1801

Comparison of consumption with previous reporting year

Much lower

Please explain

This year, we are beginning to report by percent equity. The total volumes (not by equity) are 4225 MLY, 622 MLY, and 3597 MLY respectively.

Facility reference number

Facility 7

Facility name (optional)

Mecklenburg Power Station

Country/Region

United States of America

River basin

Roanoke River

Latitude

36.59934

Longitude

-78.531272

Primary power generation source for your electricity generation at this facility

Coal - hard

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

799

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

545

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

326

Comparison of consumption with previous reporting year

Lower

Please explain

Facility reference number

Facility 8

Facility name (optional)

Pittsylvania Power Station

Country/Region

United States of America

River basin

Roanoke River

Latitude

37.104358

Longitude

-79.276553

Primary power generation source for your electricity generation at this facility

Biomass

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

341

Comparison of withdrawals with previous reporting year

Much lower

Total water discharges at this facility (megaliters/year)

8

Comparison of discharges with previous reporting year

Much lower

Total water consumption at this facility (megaliters/year)

333

Comparison of consumption with previous reporting year

Lower

Please explain

Facility reference number

Facility 21

Facility name (optional)

Rosemary Power Station

Country/Region

United States of America

River basin

Roanoke River

Latitude

36.452391

Longitude

-77.660455

Primary power generation source for your electricity generation at this facility

Gas

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

102

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

14

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

109

Comparison of consumption with previous reporting year

About the same

Please explain

Facility reference number

Facility 9

Facility name (optional)

Mount Storm Power Station

Country/Region

United States of America

River basin

Potomac River

Latitude

39.203335

Longitude

-79.266258

Primary power generation source for your electricity generation at this facility

Coal - hard

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

1381158

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

51811

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

2131

Comparison of consumption with previous reporting year

About the same

Please explain

The Mount Storm facility includes Mount Storm lake. The amount of water withdrawn from the lake is 1381148 MLY. 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. The 51811 MLY reported here represents the water that leaves the lake outfall to the downstream.

Facility reference number

Facility 10

Facility name (optional)

Possum Point Power Station

Country/Region

United States of America

River basin

Potomac River

Latitude

38.550534

Longitude

-77.287679

Primary power generation source for your electricity generation at this facility

Oil

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

155315

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

152756

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

2801

Comparison of consumption with previous reporting year

About the same

Please explain

Facility reference number

Facility 24

Facility name (optional)

Warren County Power Station

Country/Region

United States of America

River basin

Potomac River

Latitude

38.9701

Longitude

-78.17749

Primary power generation source for your electricity generation at this facility

Gas

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

231

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

145

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

87

Comparison of consumption with previous reporting year

About the same

Please explain

Facility reference number

Facility 13

Facility name (optional)

Millstone Nuclear Station

Country/Region

United States of America

River basin

Other, please specify (Long Island Sound)

Latitude

41.310744

Longitude

-72.167634

Primary power generation source for your electricity generation at this facility

Nuclear

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

2736299

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

2735850

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

487

Comparison of consumption with previous reporting year

Lower

Please explain

While the water withdrawals and discharges appear to be lower than the previous reporting year, the change reflects improved water accounting and not a change in water withdrawal or discharge practices.

Facility reference number

Facility 25

Facility name (optional)

Fairless Power Station

Country/Region

United States of America

River basin

Delaware River

Latitude

40.147092

Longitude

-74.741792

Primary power generation source for your electricity generation at this facility

Gas

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

6792

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

2604

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

4188

Comparison of consumption with previous reporting year

About the same

Please explain

Facility reference number

Facility 22

Facility name (optional)

Southampton Power Station

Country/Region

United States of America

River basin

Other, please specify (Chowan River)

Latitude

36.652173

Longitude

-76.995283

Primary power generation source for your electricity generation at this facility

Biomass

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

998

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)

972

Comparison of consumption with previous reporting year

About the same

Please explain

Facility reference number

Facility 18

Facility name (optional)

Gordonsville Power Station

Country/Region

United States of America

River basin

Other, please specify (York River)

Latitude

38.124699

Longitude

-78.203366

Primary power generation source for your electricity generation at this facility

Gas

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

33

Comparison of withdrawals with previous reporting year

Much lower

Total water discharges at this facility (megaliters/year)

12

Comparison of discharges with previous reporting year

Much lower

Total water consumption at this facility (megaliters/year)

21

Comparison of consumption with previous reporting year

Much lower

Please explain

Facility reference number

Facility 11

Facility name (optional)

North Anna Nuclear Station

Country/Region

United States of America

River basin

Other, please specify (York River)

Latitude

38.060581

Longitude

-77.789455

Primary power generation source for your electricity generation at this facility

Nuclear

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

2045290

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

2015052

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

232

Comparison of consumption with previous reporting year

About the same

Please explain

This year, we are beginning to report by percent equity. The total volumes (not by equity) are 2313676 MLY, 2279471 MLY, and 263 MLY respectively.

Facility reference number

Facility 12

Facility name (optional)

Yorktown Power Station

Country/Region

United States of America

River basin

Other, please specify (York River)

Latitude

37.213903

Longitude

-76.457885

Primary power generation source for your electricity generation at this facility

Coal - hard

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

354969

Comparison of withdrawals with previous reporting year

Much lower

Total water discharges at this facility (megaliters/year)

354971

Comparison of discharges with previous reporting year

Much lower

Total water consumption at this facility (megaliters/year)

293

Comparison of consumption with previous reporting year

Much lower

Please explain

Facility reference number

Facility 23

Facility name (optional)

Virginia City Hybrid Energy Center (VCHEC)

Country/Region

United States of America

River basin

Other, please specify (Clinch River)

Latitude

36.915585

Longitude

-82.339721

Primary power generation source for your electricity generation at this facility

Coal - hard
Coal, biomass, and oil all available

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

1476

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)

1242

Comparison of consumption with previous reporting year

Lower

Please explain

Facility reference number

Facility 19

Facility name (optional)

Hopewell Power Station

Country/Region

United States of America

River basin

James River

Latitude

37.297619

Longitude

-77.28347

Primary power generation source for your electricity generation at this facility

Biomass

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

975

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

123

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

841

Comparison of consumption with previous reporting year

About the same

Please explain

Facility reference number

Facility 17

Facility name (optional)

Brunswick Power Station

Country/Region

United States of America

River basin

Other, please specify (Chowan River)

Latitude

36.764622

Longitude

-77.712641

Primary power generation source for your electricity generation at this facility

Gas

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

292

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

163

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

129

Comparison of consumption with previous reporting year

About the same

Please explain

Facility reference number

Facility 20

Facility name (optional)

Ladysmith Power Station

Country/Region

United States of America

River basin

Other, please specify (York River)

Latitude

38.072922

Longitude

-77.514433

Primary power generation source for your electricity generation at this facility

Gas

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

8

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)

8

Comparison of consumption with previous reporting year

About the same

Please explain

Facility reference number

Facility 27

Facility name (optional)

Remington Power Station

Country/Region

United States of America

River basin

Other, please specify (York River)

Latitude

38.544339

Longitude

-77.770425

Primary power generation source for your electricity generation at this facility

Gas

Oil & gas sector business division

Please select

Total water withdrawals at this facility (megaliters/year)

1

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)

1

Comparison of consumption with previous reporting year

This is our first year of measurement

Please explain

Facility reference number

Facility 26

Facility name (optional)

Dry Piney

Country/Region

United States of America

River basin

Colorado River (Pacific Ocean)

Latitude

42.34368

Longitude

-110.33587

Primary power generation source for your electricity generation at this facility

Not applicable

Oil & gas sector business division

Upstream

Total water withdrawals at this facility (megaliters/year)

Comparison of withdrawals with previous reporting year

This is our first year of measurement

Total water discharges at this facility (megaliters/year)

Comparison of discharges with previous reporting year

This is our first year of measurement

Total water consumption at this facility (megaliters/year)

0.11

Comparison of consumption with previous reporting year

This is our first year of measurement

Please explain

Dry Piney is a gas extraction site and not an electric-generating facility. No waste water volumes were included for Dry Piney, because the water was reused in the same formation and not released into evaporation ponds.

Facility reference number

Facility 28

Facility name (optional)

Powder Wash

Country/Region

United States of America

River basin

Colorado River (Pacific Ocean)

Latitude

40.95077

Longitude

-108.31232

Primary power generation source for your electricity generation at this facility

Not applicable

Oil & gas sector business division

Upstream

Total water withdrawals at this facility (megaliters/year)

12.76

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)

12.76

Comparison of consumption with previous reporting year

This is our first year of measurement

Please explain

Powder Wash is a gas extraction site and not an electric-generating facility.

W5.1a

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

Facility reference number

Facility 15

Facility name

Bear Garden

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

2971

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

1

Produced 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 16

Facility name

Bellemeade

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 water

0

Third party sources

276

Comment

Facility reference number

Facility 3

Facility name

Bremo

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

36450

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

3

Produced water

0

Third party sources

8

Comment

Facility reference number

Facility 2

Facility name

Chesterfield

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

942794

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced water

0

Third party sources

291

Comment

Facility reference number

Facility 1

Facility name

Surry

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

0

Brackish surface water/seawater

2782375

Groundwater - renewable

0

Groundwater - non-renewable

437

Produced water

0

Third party sources

0

Comment

Facility reference number

Facility 5

Facility name

Altavista

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

101

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced water

0

Third party sources

701

Comment

Facility reference number

Facility 6

Facility name

Clover

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

2110

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

3

Produced water

0

Third party sources

0

Comment

This year, we are beginning to report by percent equity. The total volumes for the Clover power generating facility (not by equity) are 4220 MLY (Fresh surface water) and 6 MLY (Groundwater).

Facility reference number

Facility 7

Facility name

Mecklenburg

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

799

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

1

Produced water

0

Third party sources

0

Comment

Facility reference number

Facility 8

Facility name

Pittsylvania

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

337

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced water

0

Third party sources

4

Comment

Facility reference number

Facility 21

Facility name

Rosemary

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 water

0

Third party sources

101

Comment

Facility reference number

Facility 9

Facility name

Mount Storm

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

1381148

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced water

0

Third party sources

10

Comment

The Mount Storm facility includes Mount Storm lake. The amount of water withdrawn from the lake is 1381148 MLY. A relatively small amount of municipal water is used at the power station, as well.

Facility reference number

Facility 10

Facility name

Possum Point

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

155096

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced water

0

Third party sources

220

Comment

Facility reference number

Facility 24

Facility name

Warren

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 water

0

Third party sources

231

Comment

Facility reference number

Facility 13

Facility name

Millstone

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

0

Brackish surface water/seawater

2735845

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced water

0

Third party sources

455

Comment

Facility reference number

Facility 25

Facility name

Fairless

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

6792

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced water

0

Third party sources

0.45

Comment

Facility reference number

Facility 22

Facility name

Southampton

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

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

964

Produced water

0

Third party sources

0

Comment

Facility reference number

Facility 18

Facility name

Gordonsville

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

0.08

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced water

0

Third party sources

12.83

Comment

Facility reference number

Facility 11

Facility name

North Anna

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

2045282

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

8

Produced water

0

Third party sources

0

Comment

This year, we are beginning to report by percent equity. The total withdrawal volumes for the North Anna power generating facility (not by equity) are 2313667 MLY and 9 MLY, respectively.

Facility reference number

Facility 12

Facility name

Yorktown

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

0

Brackish surface water/seawater

354666

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced water

0

Third party sources

303

Comment

Facility reference number

Facility 23

Facility name

VCHEC

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 water

0

Third party sources

753

Comment

Facility reference number

Facility 26

Facility name

Bridgeport Fuel Cell

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 water

0

Third party sources

76

Comment

Facility reference number

Facility 19

Facility name

Hopewell

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

8

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced water

0

Third party sources

966

Comment

Facility reference number

Facility 17

Facility name

Brunswick

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 water

0

Third party sources

292

Comment

Facility reference number

Facility 20

Facility name

Ladysmith

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

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

8

Produced water

0

Third party sources

0

Comment

Facility reference number

Facility 27

Facility name

Remington

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

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

1

Produced water

0

Third party sources

0

Comment

Facility reference number

Facility 28

Facility name

Dry Piney

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 water

Third party sources

0

Comment

No withdrawn produced water (i.e. waste water) volumes were included for Dry Piney, because the water was reused in the same formation and not released into evaporation ponds.

Facility reference number

Facility 29

Facility name

Powder Wash

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

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

2.12

Produced water

10.64

Third party sources

0

Comment

W5.1b

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

Facility reference number

Facility 15

Facility name

Bear Garden

Fresh surface water

392

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 16

Facility name

Bellemeade

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

121

Comment

Facility reference number

Facility 3

Facility name

Bremo

Fresh surface water

36961

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 2

Facility name

Chesterfield

Fresh surface water

901211

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 1

Facility name

Surry

Fresh surface water

0

Brackish surface water/Seawater

2782375

Groundwater

0

Third party destinations

4

Comment

Facility reference number

Facility 5

Facility name

Altavista

Fresh surface water

90

Brackish surface water/Seawater

Groundwater

Third party destinations

0.17

Comment

Facility reference number

Facility 6

Facility name

Clover

Fresh surface water

311

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

This year, we are beginning to report by percent equity. The total volume (not by equity) is 622 MLY.

Facility reference number

Facility 7

Facility name

Mecklenberg

Fresh surface water

545

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 8

Facility name

Pittsylvania

Fresh surface water

8

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 21

Facility name

Rosemary

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

14

Comment

Facility reference number

Facility 9

Facility name

Mount Storm

Fresh surface water

51811

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 10

Facility name

Possum Point

Fresh surface water

152518

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 24

Facility name

Warren

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

145

Comment

Facility reference number

Facility 13

Facility name

Millstone

Fresh surface water

0

Brackish surface water/Seawater

3263023

Groundwater

Third party destinations

4

Comment

Facility reference number

Facility 25

Facility name

Fairless

Fresh surface water

2604

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 22

Facility name

Southampton

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Southampton is a no discharge facility.

Facility reference number

Facility 18

Facility name

Gordonsville

Fresh surface water

12

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 11

Facility name

North Anna

Fresh surface water

2015052

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

This year, we are beginning to report by percent equity. The total volume North Anna power generating facility (not by equity) is 2279471 MLY.

Facility reference number

Facility 12

Facility name

Yorktown

Fresh surface water

0

Brackish surface water/Seawater

354962

Groundwater

0

Third party destinations

9

Comment

Facility reference number

Facility 23

Facility name

VCHEC

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0.19

Comment

Facility reference number

Facility 19

Facility name

Hopewell

Fresh surface water

123

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 17

Facility name

Brunswick

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

163

Comment

Facility reference number

Facility 20

Facility name

Ladysmith

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

No discharge facility

Facility reference number

Facility 27

Facility name

Remington

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

No discharge facility

Facility reference number

Facility 26

Facility name

Dry Piney

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Dry Piney is a gas extraction site and not an electric-generating facility.

Facility reference number

Facility 28

Facility name

Powder Wash

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Powder Wash is a gas extraction site and not an electric-generating facility

---

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 15

Facility name

% 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 16

Facility name

% 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 3

Facility name

% 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 2

Facility name

% recycled or reused

Less than 1%

Comparison with previous reporting year

Lower

Please explain

The decrease in recycled water volume (-44%) is within our definition of “Lower”.

Facility reference number

Facility 1

Facility name

% recycled or reused

Less than 1%

Comparison with previous reporting year

About the same

Please explain

This year, no change in recycled water volume

Facility reference number

Facility 5

Facility name

% recycled or reused

Less than 1%

Comparison with previous reporting year

Please select

Please explain

This year, no change in recycled water volume

Facility reference number

Facility 6

Facility name

% 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

% 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 8

Facility name

% 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

% 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 9

Facility name

% 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

% recycled or reused

Less than 1%

Comparison with previous reporting year

About the same

Please explain

This year, very slight decrease (-1%) in recycled water volume

---

Facility reference number

Facility 24

Facility name

% 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 13

Facility name

% 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 25

Facility name

% recycled or reused

2-10%

Comparison with previous reporting year

Much higher

Please explain

The increase in water reuse is the result of much smaller gallons-per-minute estimation both during startup and normal operating hours.

Facility reference number

Facility 22

Facility name

% recycled or reused

2-10%

Comparison with previous reporting year

About the same

Please explain

This year, slight decrease (-3%) in recycled water volume

Facility reference number

Facility 18

Facility name

% 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

% 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 12

Facility name

% 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 23

Facility name

% recycled or reused

51-75%

Comparison with previous reporting year

About the same

Please explain

This year, no change in recycled water volume

Facility reference number

Facility 26

Facility name

% 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

% 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 17

Facility name

% 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

% 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 27

Facility name

% recycled or reused

None

Comparison with previous reporting year

This is our first year of measurement

Please explain

Water is not reused or recycled at this facility.

Facility reference number

Facility 28

Facility name

% recycled or reused

Please select

Comparison with previous reporting year

This is our first year of measurement

Please explain

Dry Piney is a gas extraction site and not an electric-generating facility. Reuse of waste water (i.e. produced water) are not included for Dry Piney, because the water was reused in the same formation and not released into evaporation ponds.

Facility reference number

Facility 29

Facility name

% recycled or reused

None

Comparison with previous reporting year

This is our first year of measurement

Please explain

Powder Wash is a gas extraction site and not an electric-generating facility. 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	Commitment to stakeholder awareness and education Company water targets and goals Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to water stewardship and/or collective action	The Dominion Energy Environmental Policy Statement can be found on Dominion Energy's webpage at https://www.dominionenergy.com/library/domcom/media/community/environment/environmental-policy-statement.pdf?la=en The 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 do what's right for the communities we serve by meeting or going beyond basic obligations to comply with applicable environmental laws and regulations. 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 recycle and reuse waste materials.to prevent pollution. DE_environmental-policy-statement.pdf

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) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Chief Executive Officer (CEO)	Dominion Energy's Board of Directors and its committees (the Board) have oversee Company's environmental performance and sustainability initiatives, which include water-related issues, along with long-term growth strategy which addresses the interests of shareholders, customers, employees, suppliers and the communities we serve. While the Board oversees risk policies and implementation of risk-related procedures, management is charged with assessing and managing risk on a daily basis. The Board receives and discusses reports regularly from management, including the Chief Executive Officer, and our Business Unit CEOs. These reports pertain to topics that are 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 (Finance and Risk Oversight Committee)	Finance and Risk Oversight Committee assists the Dominion Board of Directors and its Audit Committee. Dominion Energy's Board of Directors and its committees (the Board) has oversight of the company's environmental performance and sustainability initiatives, which include water-related issues, along with long-term growth strategy which addresses the interests of shareholders, customers, employees, suppliers and the communities we serve. While the Board oversees risk policies and implementation of risk-related procedures, management is charged with assessing and managing risk on a daily basis. The Board receives and discusses reports regularly from management, including the Chief Risk Officer, Chief Information Officer and Chief Environmental Officer. These reports pertain to topics that are pertinent to the company's operations, including environmental, safety, employees, customers, security (including cyber), financial performance and long-term strategy.

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	Sporadic - as important matters arise	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	Dominion Energy's Board of Directors and its committees (the Board) have oversee Company's environmental performance and sustainability initiatives, which include water-related issues, along with long-term growth strategy which addresses the interests of shareholders, customers, employees, suppliers and the communities we serve. While the Board oversees risk policies and implementation of risk-related procedures, management is charged with assessing and managing risk on a daily basis. The Board receives and discusses reports regularly from management, including the Chief Executive Officer, and our Business Unit CEOs. These reports pertain to topics that are 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.

W6.3

(W6.3) Below board level, provide the highest-level management position(s) or committee(s) with responsibility for water-related issues.

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

We have several officers with responsibilities for climate-related issues, which include water-related issues, as follows: (i)our CEO, (ii)our Chief Environmental Officer and Senior Vice President – Sustainability , who reports to the Chief Administrative & Compliance Officer; (iii)Chief Administrative & Compliance Officer who reports directly to the CEO; (iv)Senior Vice President – Corporate Affairs , who reports directly to the CEO; (v)Chief Risk Officer, who reports directly to the Chief Financial Office; and (vi)Vice President and General Counsel and each Business Unit Chief Executive Officer , who report directly to the CEO. Each Business Unit Chief Executive Officer has responsibility for helping to develop and implement water-related strategies and managing related risks and opportunities. Also, every officer at Dominion Energy is responsible for compliance with environmental laws and regulations, including climate-related issues, for their areas of responsibility.

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

Chief Sustainability Officer (CSO)
Chief Environmental Officer and Senior Vice President – Sustainability; Chief Administrative & Compliance Officer; Senior Vice President – Corporate Affairs; Chief Risk Officer; and 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

We have several officers with responsibilities for climate-related issues, which include water-related issues, as follows: (i)our CEO, (ii)our Chief Environmental Officer and Senior Vice President – Sustainability , who reports to the Chief Administrative & Compliance Officer; (iii)Chief Administrative & Compliance Officer who reports directly to the CEO; (iv)Senior Vice President – Corporate Affairs , who reports directly to the CEO; (v)Chief Risk Officer, who

reports directly to the Chief Financial Office; and (vi)Vice President and General Counsel and each Business Unit Chief Executive Officer , who report directly to the CEO. Each Business Unit Chief Executive Officer has responsibility for helping to develop and implement water-related strategies and managing related risks and opportunities. Also, every officer at Dominion Energy is responsible for compliance with environmental laws and regulations, including climate-related issues, for their areas of responsibility.

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

We have several officers with responsibilities for climate-related issues, which include water-related issues, as follows: (i)our CEO, (ii)our Chief Environmental Officer and Senior Vice President – Sustainability , who reports to the Chief Administrative & Compliance Officer; (iii)Chief Administrative & Compliance Officer who reports directly to the CEO; (iv)Senior Vice President – Corporate Affairs , who reports directly to the CEO; (v)Chief Risk Officer, who reports directly to the Chief Financial Office; and (vi)Vice President and General Counsel and each Business Unit Chief Executive Officer , who report directly to the CEO. Each Business Unit Chief Executive Officer has responsibility for helping to develop and implement water-related strategies and managing related risks and opportunities. Also, every officer at Dominion Energy is responsible for compliance with environmental laws and regulations, including climate-related issues, for their areas of responsibility.

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

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

We have several officers with responsibilities for climate-related issues, which include water-related issues, as follows: (i)our CEO, (ii)our Chief Environmental Officer and Senior Vice President – Sustainability , who reports to the Chief Administrative & Compliance Officer; (iii)Chief Administrative & Compliance Officer who reports directly to the CEO; (iv)Senior Vice President – Corporate Affairs , who reports directly to the CEO; (v)Chief Risk Officer, who reports directly to the Chief Financial Office; and (vi)Vice President and General Counsel and each Business Unit Chief Executive Officer , who report directly to the CEO. Each Business Unit Chief Executive Officer has responsibility for helping to develop and implement water-related strategies and managing related risks and opportunities. Also, every officer at Dominion Energy is responsible for compliance with environmental laws and regulations, including climate-related issues, for their areas of responsibility.

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?

	Who is entitled to benefit from these incentives?	Indicator for incentivized performance	Please explain
Monetary reward	Chief Sustainability Officer (CSO)	Other, please specify (Pollution prevention)	Dominion's Annual Incentive Plan ("AIP") provides a monetary reward to eligible employees, including C suite officers, based

	Who is entitled to benefit from these incentives?	Indicator for incentivized performance	Please explain
		The goal is to enhance current processes with goal to improve pollution prevention	on the achievement of annual Company financial, business unit financials and individual operating and stewardship goals. For certain employees and C suite officers, a portion of their 2017 AIP payout was tied to the accomplishment of environmental goals which may be linked to water stewardship directly or indirectly. Our Chief Environmental Officer and Senior Vice President – Sustainability, who reports to the Chief Administrative & Compliance Officer was one such C suite officer. Examples of AIP performance indicators may include: updating compliance planning tools for storm water pollution prevention, enhancing oil containment readiness, and obtaining the necessary environmental authorizations to support business unit operations and construction projects. For 2018, all eligible employees have an environmental-related goal.
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)	Please select	The Dominion Energy IDeAS program (short for Innovation, Development and Solutions) and Chairman's Excellence award are examples of ways DE 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 2017, a Chairmen's Excellence finalist included a team responsible for the development of the Environmental Compliance Matrix, which listed out all environmental compliance requirements (which include water-related compliance) and the compliance methodologies that are in place for such requirements. These matrices are now being implemented for all Dominion Energy facilities.

	Who is entitled to benefit from these incentives?	Indicator for incentivized performance	Please explain
Other non-monetary reward	No one is entitled to these incentives	<Field Hidden>	

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 business group 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 inconsistent. We do not necessarily subscribe to 100 percent of an organization’s beliefs or positions by virtue of membership.

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. 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. 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.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	See explanation for Long-term business objectives.
Financial planning	Yes, water-related issues are integrated	11-15	See explanation for Long-term business objectives.

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?

	Water-related CAPEX (+/- % change)	Anticipated forward trend for CAPEX (+/- % change)	Water-related OPEX (+/- % change)	Anticipated forward trend for OPEX (+/- % change)	Please explain
Row 1	-7	-47			The company decreased its CAPEX spending by 7% in 2017, due to a number of factors, some examples being the conclusion of 316(b) studies, and an overall slight decrease in coal ash pond dewatering and treatment costs. While we anticipate a 47% decrease in CAPEX spending for the same reasons, it is likely that 2019 CAPEX will increase again as we implement changes to meet 316(b) requirements and continue to dewater coal ash ponds and treat the discharge water. OPEX: We do not explicitly separate OPEX spending at power stations on water issues from the total OPEX spending.

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	No, but we anticipate doing	Dominion Energy has made a commitment to perform a two-degree scenario (2DS) analysis in 2018. The focus of the analysis will be air

	Use of climate-related scenario analysis	Comment
	so within the next two years	quality; however any water-related issues that result from the analysis can be made available to inform water-related business strategies. Water-related issues may or may not be identified during that analysis.

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	Targets are monitored at the corporate level Goals are monitored at the	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

Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
and/or goals Site/facility specific targets and/or goals	corporate level	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 2018, Dominion Energy Wexpro will install 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

Please explain

Dominion Energy is in the first year of increasing reuse/recycling in our gas extraction operations in the arid western U.S., and a target year and target percentage have not been set.

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 (Set a target to reduce water withdrawals)

Level

Business

Motivation

Reduced environmental impact

Description of goal

Dominion Energy power generation is in the process of setting a target from reducing water withdrawals.

Baseline year

Start year

End year

Progress

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

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Goal

Other, please specify (Increase Company water disclosure)

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.

Baseline year

2017

Start year

2017

End year

Progress

We are participating in the EEI ESG/ Sustainability Metrics Pilot which provides additional disclosures on water use and intensity for our generation assets.

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

Increased wastewater treatment
Increased wastewater treatment, reduced wastewater discharges

Description of linkage/tradeoff

In April 2015, EPA published a final rule regulating the management of CCRs (CCR Rule) stored in impoundments (ash ponds) and landfills. Dominion Energy closely tracked the development of the CCR Rule by EPA, and we assessed business impacts and potential responses prior to the rule becoming final. We currently directly operate inactive ash ponds, existing ash ponds, and CCR landfills subject to the rule at eight different facilities and we continue to evaluate other features at our facilities for potential applicability under the final CCR Rule. Also in 2015 EPA revised Steam Electric Power Generating Effluent Guidelines requiring more stringent limits on key wastewaters generated by combusting coal. While the impacts of this rule could be material to Company operations, financial condition and/or cash flows, the existing regulatory framework in Virginia provides rate recovery mechanisms that could substantially mitigate any such impacts for power generation in Virginia.

Policy or action

Power Generation facilities which utilize coal as a fuel developed plans to meet the requirements associated with the Coal Combustion Residuals Rule (CCR Rule). Those facilities were also required to meet new Steam Electric Power Generating Effluent Limit Guidelines. 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 ELG's. 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 (such as at Possum Point, Chesterfield and Bremo in 2017), discharges from the ponds will reduce over the long-term. 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 (such as at Possum Point, Chesterfield and Bremo in 2017), discharges from the ponds will reduce over the long-term.

Linkage or tradeoff

Linkage

Type of linkage/tradeoff

Please select

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, driven in part by decreasing GHG emissions also results in reduced water consumption over the long term.

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.

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. On 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 systems require less source water than once-through cooling systems because they recirculate water through the cooling system for multiple cycles. During each cycle the water is cooled via evaporation. Closed-cycle cooling requires the use of additional water circulating pumps and fans that require electricity. This use of electricity reduces the net amount of electricity that a facility can supply to the grid and thus impacting the net carbon intensity of the facility.

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. As we build new power stations, we have worked to eliminate the need for water to be used for cooling. For example the Greensville Power Station, which will begin commercial operations in 2018, will use air-cooled condensers which reduce water withdrawal and water consumption.

Linkage or tradeoff

Tradeoff

Type of linkage/tradeoff

Other, please specify (conversion of forest and farm land)

Description of linkage/tradeoff

Since 2013, we've helped bring 1,200-megawatts (MW) of large-scale solar into operation in nine states, enough energy to power about 300,000 homes at peak solar output. In 2017, the company brought online 466 megawatts of solar generating capacity, a total investment of more than $900 million. Dominion Energy is now the nation’s sixth-largest utility owner-operator of solar power. However, the land required for solar generation is on the order of 7 to 15 acres per MW which is significantly greater than traditional generating sources.

Policy or action

Protecting the ecosystem around our facilities is an integral part of the Company’s commitment to the environment. Avian protection areas help protect native birds such as bald eagles and peregrine falcons. The Wings at Work program helps to foster a suitable habitat for butterflies, bees and birds. Our Wings at Work program fosters development of suitable habitats vital to pollinators. To date, 43,000 acres of open spaces have been converted to habitat suitable for pollinators. At least 60 additional acres of new habitat will be created at several of our power stations including Brunswick County, Yorktown, Clover, Possum Point, and Bath County. We have changed our mowing practices to give native plants better chances for robust growth.

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	Vice President, Environmental Services	Other, please specify (Vice President, Environmental Services)

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 below

I have read and accept the applicable Terms