

**Module: Introduction****Page: W0. Introduction****W0.1****Introduction****Please give a general description and introduction to your organization****Business Overview**

NRG's vision is to create a sustainable energy future. NRG is the leading integrated power company in the U.S., built on the strength of the nation's largest and most diverse competitive electric generation portfolio and leading retail electricity platform. NRG core businesses include wholesale conventional generation, retail electricity including personal power solutions and Business Solutions (included in the Retail segment, effective in January 2017), contracted generation owned by NRG Yield, Inc. (included in the NRG Yield segment) and renewable utility scale and distributed generation assets that are constructed or in development and that are not otherwise owned by NRG Yield, Inc. (included in the Renewables segment).

**Generation**

NRG's wholesale power generation business includes NRG's wholesale operations including plant operations, commercial operations, EPC, energy services and other critical related functions. In addition to the traditional functions, the wholesale power generation business also includes NRG's conventional distributed generation business, consisting of reliability, combined heat and power and large-scale distributed generation. NRG has one of the largest and most diversified power generation portfolios in the U.S., with approximately 42,000 MW of fossil fuel and nuclear generation capacity at 85 plants as of December 31, 2016.

**Retail**

Retail provides energy and related services as well as personal power to Mass Market consumers through various brands and sales channels across the U.S. Retail also includes C&I customers and other distributed and reliability products which are within NRG's Business Solutions group.

Included in Retail is NRG's Business Solutions group, which focuses on providing distributed products and services as businesses seek greater reliability, cleaner power or other benefits that they cannot obtain from the grid. These solutions include system power, distributed generation, solar and wind products, carbon management and specialty services, backup generation, storage and distributed solar, demand response and energy efficiency. NRG also provides energy services including operations, maintenance, technical, development and asset management services to its own facilities and to external customers.

**Renewables**

NRG's renewables business focuses on the acquisition, development and operation and maintenance of utility scale wind and solar, community solar and distributed solar generation assets as well as the management and operations of the renewable generation assets owned by NRG Yield, Inc. In 2016, NRG acquired 1,637 MW of utility scale solar and wind projects and 107 MW of distributed generation and community solar projects that are currently under development or in operation

across 12 states. The renewables business has in house expertise that covers the full spectrum of development capabilities to execute on utility, distributed generation, and community solar projects. The asset management and operations and maintenance groups within the renewables business manage a portfolio of wind and solar assets across 26 states, serving as the primary commercial asset manager on the vast majority of assets owned by NRG and NRG Yield, Inc.

#### NRG Yield

NRG Yield, Inc. is a publicly-traded, dividend growth-oriented company formed to serve as the primary vehicle through which NRG owns, operates and acquires diversified contracted renewable and conventional generation and thermal infrastructure assets. As of December 31, 2016, NRG owns a 55.1% voting interest in the outstanding common stock of NRG Yield, Inc. NRG Yield, Inc.'s contracted generation portfolio collectively represents 4,563 net MW as of December 31, 2016. Each of the assets sells substantially all of its output pursuant to long-term, fixed price offtake agreements with creditworthy counterparties. NRG Yield, Inc. also owns thermal infrastructure assets with an aggregate steam and chilled water capacity of 1,319 net MWt and electric generation capacity of 123 net MW.

Certain matters discussed in this survey are forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995, that are subject to risks and uncertainties. Please see comments below in 'Further information' about forward-looking statements.

---

## W0.2

### Reporting year

**Please state the start and end date of the year for which you are reporting data**

Period for which data is reported
Fri 01 Jan 2016 - Sat 31 Dec 2016

---

## W0.3

### Reporting boundary

**Please indicate the category that describes the reporting boundary for companies, entities, or groups for which water-related impacts are reported**

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

---

**W0.4****Exclusions**

Are there any geographies, facilities or types of water inputs/outputs within this boundary which are not included in your disclosure?

No

---

**W0.4a****Exclusions**

Please report the exclusions in the following table

Exclusion	Please explain why you have made the exclusion

---

**Further Information**

NRG 2016 Sustainability Report page 6.

---

**Attachments**

[https://www.cdp.net/sites/2017/62/13562/Water 2017/Shared Documents/Attachments/Water2017/W0.Introduction/2016-nrg-sustainability-report.pdf](https://www.cdp.net/sites/2017/62/13562/Water%202017/Shared%20Documents/Attachments/Water2017/W0.Introduction/2016-nrg-sustainability-report.pdf)

**Module: Current State****Page: W1. Context**

---

**W1.1**

Please rate the importance (current and future) of water quality and water quantity to the success of your organization

Water quality and quantity	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital for operations	Important	NRG's operation of power generation stations depends on sufficient amounts of good quality freshwater to be available; therefore direct use is listed as vital for operations. In 2016, 48% of the water used in operations was freshwater for direct use. The primary direct use of freshwater is for the cooling of condensers in the generation of power, with a small amount used to create steam and WASH (water, sanitation, and hygiene) for workers. Indirect use of sufficient amounts of good quality freshwater is important for NRG's fuel supply because it is necessary for natural gas production and the manufacturing of chemicals used in the generation of power, therefore indirect use is listed as important.
Sufficient amounts of recycled, brackish and/or produced water available for use	Vital for operations	Important	NRG's operation of power generation stations depends on sufficient amounts of recycled, brackish and ocean water to be available, therefore direct use is listed as vital for operations. In 2016, 52% of the water used in operations was recycled, brackish or ocean water for direct use. The primary direct use of brackish, recycled and ocean water is for the cooling of condensers in the generation of power. NRG does not use produced water for its operations. NRG suppliers do not indicate that they depend on recycled, brackish or produced water for operations. It is likely that some chemical manufacturing facilities use brackish or recycled water for cooling water in their manufacturing processes; therefore indirect use is listed as important.

## W1.2

For your total operations, please detail which of the following water aspects are regularly measured and monitored and provide an explanation as to why or why not

Water aspect	% of sites/facilities/operations	Please explain
Water withdrawals- total	76-100	NRG regularly measures and monitors water withdrawal total volumes in millions of gallons that are

Water aspect	% of sites/facilities/operations	Please explain
volumes		converted to cubic meters, at the 78 generating operations with National Pollution Discharge Elimination System permits. The 78 generating locations are 99.9% of the total water withdrawal. In 2016 KPMG verified NRG's 2015 water inventory and determined that renewable, operations without a wastewater discharge permit, and offices are not material. NRG has a Water Champion that is trained on water accounting and follows the GRI water reporting standard, at each of the 78 generating stations that tracks withdrawal by source and reports the cubic meters in NRG's environmental management information system. The non-reporting locations are calculated by the number of site personnel. This data is used to benchmark, manage water withdrawals, and evaluate water total withdrawal.
Water withdrawals- volume by sources	76-100	NRG regularly measures and monitors water withdrawal total volumes by source in millions of gallons that are converted to cubic meters, at the 78 generating operations with National Pollution Discharge Elimination System permits. In 2016 KPMG verified NRG's 2015 water inventory and determined that renewable, operations without a wastewater discharge permit, and offices are not material. NRG has a Water Champion that is trained on water accounting and follows the GRI water reporting standard, that tracks withdrawal by source and reports the cubic meters in NRG's environmental management information system. The non-reporting locations are calculated by the number of site personnel. This data is used to benchmark, manage water withdrawals, and evaluate water withdrawal sources. • Fresh surface water • Brackish surface water/seawater • Rainwater • Groundwater-renewable • Groundwater-non-renewable • Produced/process water • Municipal supply • Wastewater from another organization
Water discharges- total volumes	76-100	NRG regularly measures and monitors water discharges total volume in millions of gallons that are converted to cubic meters, at 78 of its generating operations with National Pollution Discharge Elimination System permits. The 78 generating stations are 99.9% of the total water discharged by volume. In 2016 KPMG verified NRG's 2015 water inventory and determined that renewable, operations without a wastewater discharge permit, and offices are not material. NRG has a Water Champion that is trained on water accounting and follows the GRI water reporting standard, at each of the 78 generating stations that tracks discharge by volume and reports the cubic meters in NRG's environmental management information system. This data is reported to state agencies as required by each site's wastewater permit. This data is used to benchmark and manage water discharges.
Water discharges- volume by destination	76-100	NRG regularly measures and monitors water discharges volumes by destination in millions of gallons that are converted to cubic meters, at 78 of its generating operations with National Pollution Discharge Elimination System permits. The 78 generating stations are 99.9% of the total water discharged by destination. In 2016 KPMG verified NRG's 2015 water inventory and determined that renewable, operations without a wastewater discharge permit, and offices are not material. NRG has a Water Champion that is trained on water accounting and follows the GRI water reporting standard, tracks discharge by destination and reports in NRG's environmental management information system. This data is reported to state agencies as required by each site's wastewater permit. This data is used to benchmark and manage water discharge by destination. • Fresh surface water • Brackish surface

Water aspect	% of sites/facilities/operations	Please explain
		water/seawater • Groundwater • Municipal/Industrial Wastewater Treatment Plant • Wastewater for another organization
Water discharges- volume by treatment method	76-100	NRG regularly measures and monitors water discharge - volume by treatment method at 78 of its generating operations with National Pollution Discharge Elimination System permits. The 78 generating stations are 99.9% of the total water discharge - volume by treatment method. In 2016 KPMG verified NRG's 2015 water inventory and determined that renewable, operations without a wastewater discharge permit, and offices are not material. NRG has a Water Champion that is trained on water accounting and follows the GRI water reporting standard, at each of the 78 generating stations that tracks discharge volume by treatment method. This data is reported to state agencies as required by each site's wastewater permit. Permit non-compliance incidents are reported and tracked in NRG's environmental management information system. All NRG generating stations have environmental compliance goals.
Water discharge quality data- quality by standard effluent parameters	76-100	NRG regularly measures and monitors water discharge quality data, quality by standard effluent parameters, at 78 of its generating operations with National Pollution Discharge Elimination System permits. The 78 generating locations are 99.9% of the total water discharge quality data - quality by standard effluent parameters. In 2016 KPMG verified NRG's 2015 water inventory and determined that renewable, operations without a wastewater discharge permit, and offices are not material. NRG has a Water Champion that is trained on water accounting and follows the GRI water reporting standard, at each of the 78 generating stations that tracks discharge quality data by standard effluent parameters. This data is reported to state agencies as required by each site's wastewater permit. Permit non-compliance incidents are reported and tracked in NRG's environmental management information system. All NRG generating stations have environmental compliance goals.
Water consumption- total volume	76-100	NRG regularly measures and monitors total volume of water consumption, in cubic meters, at 78 of its generating operations with National Pollution Discharge Elimination System permits. The 78 generating locations are 99.9% of the total water consumption. In 2016 KPMG verified NRG's 2015 water inventory and determined that renewable, operations without a wastewater discharge permit, and offices are not material. Water consumption is calculated as the difference between total withdrawal and total discharge. NRG has a Water Champion at each location that is trained on water accounting and follows the GRI water reporting protocols. This data is used to benchmark and manage water consumption.
Facilities providing fully-functioning WASH services for all workers	76-100	NRG regularly measures and monitors all facilities and provides fully-functioning WASH services for all workers. NRG operations are primarily in the United States and OSHA requires WASH services for all workers. 100% of NRG facilities have WASH services.

**Water withdrawals: for the reporting year, please provide total water withdrawal data by source, across your operations**

Source	Quantity (megaliters/year)	How does total water withdrawals for this source compare to the last reporting year?	Comment
Fresh surface water	3602328.21	Much lower	NRG fresh surface water withdrawals decreased by 29% in 2016. The decrease in fresh surface water withdrawal is due to fuel switching, the reduction in generation and water conservation efforts. 99% of the fresh surface water withdrawn is returned to the water body.
Brackish surface water/seawater	4497898.64	Much lower	NRG brackish surface water/seawater withdrawals decreased by 18% in 2016. The decrease in brackish surface water/seawater withdrawal is due decreased operations in the winter and summer, as well as maintenance outages for unit upgrades. 96% of the brackish surface water/seawater withdrawn is returned to the water body.
Rainwater	49021.73	Much lower	NRG rainwater collection decreased in 2016. Rainwater used at generating facilities is based on the amount of rainfall received and collected in stormwater basins for use or treated and discharged. NRG generating stations in the south and northeast experience increases in rainfall, the west experience decreases in rainfall.
Groundwater - renewable	3237.14	Much higher	NRG treated more renewable groundwater in 2016. Renewable groundwater is not used for the production of power. Renewable Groundwater is WASH water that is discharge to a septic system or water that is removed from the facilities to prevent flooding, due to subsidence.
Groundwater - non-renewable	13688.66	Lower	NRG used less non-renewable groundwater in 2016. The reduction in non-renewable groundwater use is due to reduced operations and water conservation efforts.
Produced/process water	0	Not applicable	NRG does not use produced/processed water.
Municipal supply	6458.03	Much lower	NRG used less municipal water in 2016. A number of NRG's stations, through a reduction in generation and conservation efforts, reduced the use of municipal water by 36%.
Wastewater from another organization	457.84	Lower	NRG used less wastewater from another organization in 2015. NRG owns and operates 2 plants in California that operate on wastewater from other organizations in area that is stressed for water. Wastewater from another organization was reduced by 59%. This reduction of wastewater use was due to a decrease in power generation.
Total	8173090.25	Much lower	NRG total water withdrawals decreased by 23% in 2016. The decrease in total water withdrawal is due to the conversion of multiple coal generating units to natural gas and outages to enhance environmental pollution controls. 98% of the water withdrawn is

Source	Quantity (megaliters/year)	How does total water withdrawals for this source compare to the last reporting year?	Comment
			returned to the water body.

**W1.2b**

**Water discharges: for the reporting year, please provide total water discharge data by destination, across your operations**

Destination	Quantity (megaliters/year)	How does total water discharged to this destination compare to the last reporting year?	Comment
Fresh surface water	3513419.56	Lower	NRG fresh surface water withdrawals decreased by 29% in 2016. The decrease in fresh surface water withdrawal is due to the reduction in generation and water conservation efforts.99% of the fresh surface water withdrawn is returned to the water body.
Brackish surface water/seawater	4456676.01	Much lower	NRG brackish surface water/seawater withdrawals decreased by 18% in 2016. The decrease in fresh surface water withdrawal is due to the reduction in generation and water conservation efforts.96% of the fresh surface water withdrawn is returned to the water body.
Groundwater	85.38	Much lower	NRG discharged 73% less water into the ground in 2016. Water that is discharged into the ground is generally from WASH treatment systems. Facilities have implemented low flow devices and water management for potable water systems that have reduced discharges.
Municipal/industrial wastewater treatment plant	1355.10	Much lower	NRG discharged 42% less water to municipal treatment in 2016. Water that is discharged to municipal treatment is generally WASH water. Facilities have implemented low flow devices and water management for potable water systems. Several facilities had increased operations which discharge waste water to municipal treatment.

Destination	Quantity (megaliters/year)	How does total water discharged to this destination compare to the last reporting year?	Comment
Wastewater for another organization	0	Not applicable	NRG does not discharge wastewater directly to another organization. NRG freshwater (which is a quality that is equal to or better than the receiving water quality) discharge is back to the water body. This discharge is important to maintain freshwater flows to ecosystems.
Total	7971536.05	Much lower	NRG total water discharges decreased by 33% in 2016. The decrease in fresh surface water withdrawal is due to the reduction in generation and water conservation efforts. 98% of the fresh surface water withdrawn is returned to the water body.

#### W1.2c

**Water consumption: for the reporting year, please provide total water consumption data, across your operations**

Consumption (megaliters/year)	How does this consumption figure compare to the last reporting year?	Comment
201554.20	Much lower	NRG total water consumption decreased by 14% in 2016 from 2015. The decrease in total water consumption is due to several factors. NRG had a reduction in generation, which reduced the amount of water used. NRG has improved water management programs that have reduced potable water use. Another contributor to reducing consumption is better water data. Facility water champions evaluate data and calculation methods to ensure data accuracy.

#### W1.3

**Do you request your suppliers to report on their water use, risks and/or management?**

Yes

---

**W1.3a**

**Please provide the proportion of suppliers you request to report on their water use, risks and/or management and the proportion of your procurement spend this represents**

Proportion of suppliers %	Total procurement spend %	Rationale for this coverage
1-25	76-100	NRG's supply chain consists of a wide range of procurement activities, including fuel purchases, operations and maintenance, renewables, capital projects and services. In 2016 NRG became the first major power producer to participate in CDP's Supply Chain Engagement program to collect water risk data about suppliers. These suppliers represent 90% of total procurement spend, however are only a small percentage of the total number of vendors. The information collected through CDP will allow NRG to track to their supply chain goals: >Achieve GHG and water disclosures from 80 percent of major suppliers by 2020 >Reduce supply chain carbon and water intensity 25 percent by 2025 The insights gained will help guide our efforts to reduce risks, enhance efficiency and create business value. Read more on page 30 of NRG's 2016 Sustainability Report.

---

**W1.3b**

**Please choose the option that best explains why you do not request your suppliers to report on their water use, risks and/or management**

Primary reason	Please explain
----------------	----------------

**W1.4**

**Has your organization experienced any detrimental impacts related to water in the reporting year?**

Yes

**W1.4a**

**Please describe the detrimental impacts experienced by your organization related to water in the reporting year**

Country	River basin	Impact driver	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
United States of America	Other:	Phys-Declining water quality Phys-Ecosystem vulnerability Phys-Pollution of water source Reg-Regulation of discharge quality/volumes leading to higher compliance costs Reg-Regulatory uncertainty Reg-Unclear and/or unstable regulations on water allocation and wastewater discharge	Litigation	NRG acquired the Chalk Point facility as part of the GenOn merger. The facility has a lawsuit alleging CWA violations that was filed early 2013.	2013 to 2016	Consent Decree with a penalty of \$1,000,000.00 and \$1,000,000.00 in supplemental environmental projects.	Engagement with community Engagement with public policy makers Engagement with other stakeholders in the river basin Infrastructure maintenance Increased investment in new technology Promote best practice and awareness	Prior to merging with NRG, GenOn submitted a request to reopen the NPDES permit to Maryland Department of Environment (MDE) in August 2010, and has been working with MDE to resolve this issue since the scrubber wastewater treatment system was brought on line in late 2009. NRG has continued to explore all options to increase the effectiveness of the system, including: • Lowering and

Country	River basin	Impact driver	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
		Rep-Community opposition Rep-Litigation Rep-Negative media coverage					Establish site-specific targets	equalizing the chlorides in the Sequential Batch Reactor (SBRs) • Enhanced use of Klaraid in the SBRs and the effluent tank • Improved clarifier performance • Improved temperature stabilization • Capturing ammonia rich plant demineralizer regeneration wastewater and routing it to the WWTP for nitrogen removal • Consulting services with specific expertise in the operation of SBRs to improve operational results In 2014 we completed the pilot study that showed lower, controlled solids retention times in the SBRs would help the station maintain nutrient levels in the 4 mg/l range. To be able to run at such a low SRT, filters that could capture, quantify, and return solids to the SBRs would be necessary. NRG ran a membrane study to ensure that technology

Country	River basin	Impact driver	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
								would be compatible with the scrubber wastewater. In addition, in 2015 NRG installed new instrumentation to the SBRs that could improve operations. The Consent Decree was finalized on 2016. The new technology works effectively and the plant operates in compliance with the Wastewater Discharge permit.
United States of America	Potomac River	Phys-Declining water quality Phys-Ecosystem vulnerability Phys-Pollution of water source Reg-Regulation of discharge quality/volumes leading to higher compliance costs Reg-Regulatory uncertainty Reg-Unclear and/or unstable regulations on water allocation and wastewater discharge	Litigation	NRG acquired the Dickerson facility as part of the GenOn merger. The facility has a lawsuit alleging CWA violations that was filed early 2013.	2013 to 2016	Consent Decree with a penalty of \$1,000,000.00 and \$1,000,000.00 in supplemental environmental projects.	Engagement with community Engagement with public policy makers Engagement with other stakeholders in the river basin Infrastructure maintenance Increased investment in new technology Promote best practice and awareness	Prior to merging with NRG, GenOn submitted a request to reopen the NPDES permit to Maryland Department of Environment (MDE) in August 2010, and has been working with MDE to resolve this issue since the scrubber wastewater treatment system was brought on line in late 2009. NRG has continued to explore all options to increase the effectiveness of the system, including: • Lowering and

Country	River basin	Impact driver	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
		Rep-Community opposition Rep-Litigation Rep-Negative media coverage					Establish site-specific targets	<p>equalizing the chlorides in the Sequential Batch Reactor (SBRs) • Enhanced use of Klaraid in the SBRs and the effluent tank • Improved clarifier performance • Improved temperature stabilization • Capturing ammonia rich plant demineralizer regeneration wastewater and routing it to the WWTP for nitrogen removal • Consulting services with specific expertise in the operation of SBRs to improve operational results In 2014 we completed the pilot study that showed lower, controlled solids retention times in the SBRs would help the station maintain nutrient levels in the 4 mg/l range. To be able to run at such a low SRT, filters that could capture, quantify, and return solids to the SBRs would be necessary. NRG ran a membrane study to ensure that technology</p>

Country	River basin	Impact driver	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
								would be compatible with the scrubber wastewater. In addition, in 2015 NRG installed new instrumentation to the SBRs that could improve operations. The Consent Decree was finalized on 2016. The new technology works effectively and the plant operates in compliance with the Wastewater Discharge permit.
United States of America	St. Lawrence	Reg-Regulatory uncertainty Reg-Statutory water withdrawal limits/changes to water allocation Reg-Unclear and/or unstable regulations on water allocation and wastewater discharge Rep-Community opposition Rep-Negative media coverage	Brand damage	NRG acquired the Waukegan facility in April 2014 as part of the purchase of Midwest Generation. NRG kept operating the Waukegan facility as a coal-fired power plant, and improved emissions controls at the generating station. However, some Lake County residents and NGOs have been pushing for a long-term transition plan to retire the coal-fired	2014 to Present	NRG invested \$278 million in upgrades to NRG's East Region power plants. The asset management plan will keep the Waukegan plant in operation as a coal fired facility.	Engagement with community Engagement with public policy makers Engagement with other stakeholders in the river basin Infrastructure investment Infrastructure maintenance Strengthen links with local community	Emissions controls scheduled for the two burners at the Waukegan plant to make them "fully compliant" with state standards were completed at the end of 2014 and May 2015, respectively. NRG has installed \$3 million worth of solar panels on area schools rooftops. NRG estimates that environmental capital expenditures from 2017 through 2021 required to comply with environmental laws will

Country	River basin	Impact driver	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
				power plant, located on the city's lakefront.				be approximately \$134 million, which includes \$61 million for GenOn and \$42 million for Midwest Generation. These costs are primarily associated with the cost of complying with anticipated ELG requirements.
United States of America	Sabine River	Phys-Flooding	Plant/production disruption leading to reduced output	Cottonwood Flooding — During March 2016, NRG's Cottonwood generating station was damaged by record flooding of the nearby Sabine River. The generating station was returned to service in the third quarter of 2016.	March 2016 to October 2016	The Company expects the restoration costs to be reimbursed through insurance recoveries. Through December 31, 2016, the Company has expensed \$2 million and collected \$27.5 million of insurance proceeds from property damage and \$10 million of insurance proceeds from business interruption insurance. The Company is continuing to work with insurers on further property and business interruption insurance recovery.	Develop flood emergency plans Engagement with community Engagement with public policy makers Engagement with other stakeholders in the river basin	The Company is continuing to work with insurers on further property and business interruption insurance recovery.

Please choose the option below that best explains why you do not know if your organization experienced any detrimental impacts related to water in the reporting year and any plans you have to investigate this in the future

Primary reason	Future plans
----------------	--------------

---

**Further Information**

NRG 2016 10K - pages 101-103 NRG 2016 Sustainability Report - pages 20-21

---

**Attachments**

[https://www.cdp.net/sites/2017/62/13562/Water 2017/Shared Documents/Attachments/Water2017/W1.Context/2016-nrg-sustainability-report.pdf](https://www.cdp.net/sites/2017/62/13562/Water%202017/Shared%20Documents/Attachments/Water2017/W1.Context/2016-nrg-sustainability-report.pdf)  
[https://www.cdp.net/sites/2017/62/13562/Water 2017/Shared Documents/Attachments/Water2017/W1.Context/NRGEnergyInc \(27\).pdf](https://www.cdp.net/sites/2017/62/13562/Water%202017/Shared%20Documents/Attachments/Water2017/W1.Context/NRGEnergyInc%20(27).pdf)

**Module: Risk Assessment****Page: W2. Procedures and Requirements**

---

**W2.1**

**Does your organization undertake a water-related risk assessment?**

Water risks are assessed

---

**W2.2**

**Please select the options that best describe your procedures with regard to assessing water risks**

Risk assessment procedure	Coverage	Scale	Please explain
Comprehensive company-wide risk assessment	Direct operations and supply chain	All facilities and some suppliers	NRG evaluates water risk at all NRG generating stations and Tier 1 Suppliers. A comprehensive company-wide risk assessment approach is taken because water risk is linked with other risks, such as air emissions. Each NRG generating facility is unique and NRG's water risk approach identifies and addresses risks for each NRG location covering the following topics: •Availability •Quality •Regulatory •Stakeholder concerns •Supply chain impacts •Financial •Operational •Environmental NRG evaluates all Tier 1 suppliers for water risk using AdaptOne. AdaptOne is a supplier management program. NRG has 40,000 suppliers. Tier 1 suppliers make up 20% to 25% of total operations spend. Tier 1 suppliers are identified as business partners that are critical to the success of NRG's business. NRG will use CDP Water to evaluate supplier responses beginning with the 2017 Water Information Request.

### W2.3

Please state how frequently you undertake water risk assessments, at what geographical scale and how far into the future you consider risks for each assessment

Frequency	Geographic scale	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Region	>6 years	NRG evaluates water risk at the regional level. Water planning varies by state, but is evaluated at the NRG regional level, due to interconnection and shared water resources. Water planning looks at availability, quality based on historical rainfall and projected growth. These risks are projected for 20 years into the future. NRG began using Spotfire in 2016, a visualization tool that we created dashboards to model water by region, source, quantity, quality and to predict future needs.
Six-monthly or more frequently	Facility	3 to 6 years	NRG evaluates station water risks weekly and projects risks for 5 years in the future. The projected water risk is based on future operating capacity, water availability, water quality, and regulatory risk. NRG began using Spotfire in 2016, a visualization tool that we created dashboards to model water by region, source, quantity, quality and to predict future needs based on project operations.

Frequency	Geographic scale	How far into the future are risks considered?	Comment
Six-monthly or more frequently	River basin	>6 years	NRG evaluates river basin risks weekly. Water planning looks at availability, quality based on historical rainfall, projected growth and stakeholder needs. These risks are projected for 20 years into the future. NRG began using Spotfire in 2016, a visualization tool that we created dashboards to model water by region, source, quantity, quality and to predict future needs based on project operations.
Six-monthly or more frequently	Business unit	3 to 6 years	NRG evaluates business unit water risks weekly and projects risks for 5 years in the future. The projected water risk is based on future operating capacity, water availability, water quality, and regulatory risk. NRG began using Spotfire in 2016, a visualization tool that we created dashboards to model water by region, source, quantity, quality and to predict future needs based on project operations.
Annually	Country	>6 years	NRG evaluates country water risks annually and projected for 20 years in the future. Country risk is an aggregation of all risks identified. NRG began using Spotfire in 2016, a visualization tool that we created dashboards to model water by region, source, quantity, quality and to predict future needs based on project operations.

#### W2.4

**Have you evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy?**

Yes, evaluated over the next 1 year

#### W2.4a

**Please explain how your organization evaluated the effects of water risks on the success (viability, constraints) of your organization's growth strategy?**

NRG evaluates the effects of water risk on the success of the organization's growth strategy. Water quality, water quantity, regulatory changes and stakeholder conflicts are evaluated for the potential impacts to the success of NRG's growth strategy. The business strategy is implemented to address the risks identified. An example of a regulatory risk is the EPA 316(b) regulation on water intake structures. The process for water risk assessment includes financial, environmental and reputational risk review and results are used to make strategic decisions, including CAPEX. The risks that are identified may also be viewed as potential business opportunities as with NRG's renewable energy business. Solar energy requires little or no water to generate electricity and eliminates the risk of water withdrawal for

system cooling. NRG renewables and NRG Yield grew from 1,180 MW in 2013 to 6745 MW in 2016, a renewable energy capacity growth of 570%. Future projects for power generation use little or no water.

**W2.4b**

What is the main reason for not having evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy, and are there any plans in place to do so in the future?

Main reason	Current plans	Timeframe until evaluation	Comment

**W2.5**

Please state the methods used to assess water risks

Method	Please explain how these methods are used in your risk assessment
CEO Water Mandate's 'Understanding Key Water Stewardship Terms' GEMI Local Water Tool Global Water Tool for Power Utilities Internal company knowledge Life Cycle Assessment Regional government databases WBCSD Global Water Tool WRI water stress definition WRI Aqueduct	NRG utilizes various tools to assist with Water Risk Assessments. NRG uses the various listed methods to assess water risk at multiple levels. The operational scope of water risk is evaluated at all NRG generating facilities, region, water basin, business unit, and country. NRG recognizes the WRI definition of water stress, "The ability, or lack thereof, to meet human and ecological water demand". We use the CEO Water Mandate for guidance, 'Understanding Key Water Stewardship Terms'. GEMI Local Water Tool, WBCSD Global Water Tool, WRI Aqueduct, WWF-DEG Water Risk Filter, internal company knowledge and local and regional water planning scenarios from membership affiliations are used to model risk for facilities, regions and water basins. These tools are used to assist in evaluating our fleet of generating stations and in the creation of our operational strategy. They are used to inform development of new projects and long term strategies. NRG uses the Global Water Tool for Power Utilities and internal company knowledge as a guide for setting boundaries, categorizing the water withdrawal and discharge sources. NRG uses an internal environmental management information system that is structured to align with the Global Water Tool for Power Utilities to collect water data. These methods were selected because they allow for granular data analysis to better evaluate risk. These tools are effective in mapping risk for water stress, water quality and biodiversity concerns. NRG uses life cycle assessments to understand water risk. 99% of the fresh surface water withdrawn is

Method	Please explain how these methods are used in your risk assessment
WWF-DEG Water Risk Filter Other: CDP Water, Stakeholder Coalitions	returned to the water body. Life cycle analysis helps to reduce risk for NRG and assists with stakeholder engagement for water needs. Regional government databases and subscriptions to regulatory updates are used to plan and evaluate the impacts of regulatory changes, such as EPA 316(b) and the effluent guidelines for steam power generators. The data is used to evaluate future operations and the cost of compliance with regulations. This provides a platform to work with regulatory agencies to address concerns with regulations. These tools look at near term water related risk. NRG has requested that our suppliers complete the CDP Climate and Water Questionnaire and will use CDP Supplier information to help assess our supply chain risk associated with water.

**W2.6**

**Which of the following contextual issues are always factored into your organization's water risk assessments?**

Issues	Choose option	Please explain
Current water availability and quality parameters at a local level	Relevant, included	Water is a key input for many of NRG's power generating stations and it is important to understand risk at the local level. NRG is a member of local water stakeholder groups that plan for current and future water availability. In Texas, NRG supported a Water Master for the lower Brazos River. The Water Master monitors water use and works with stakeholders to ensure critical water needs are met. NRG is a member of local water stakeholder groups that plan for current and future water availability, which follow the CEO Water Mandate's "Understanding Key Water Stewardship Terms". NRG is a founding member of the Lower Brazos River Coalition to protect water availability and ensure environmental flows to estuaries. The WRI definition of water stress, GEMI Local Water Tool, Global Water Tool for Power Utilities, WWF-DEG Water Risk Filter, WBCSD Global Water Tool, internal company knowledge (to access current water concerns at generating stations that are related to quality and quantity), and regional government databases (USGS and River data are used to assess current conditions) are used for water availability and quality parameters at the local level.
Current water regulatory frameworks and tariffs at a local level	Relevant, included	Water is a key input for many of NRG's power generating stations and it is important to understand current water regulatory frameworks and tariffs at the local level. NRG uses Internal company knowledge and regional government database to assess risk for the current water regulatory Frameworks and tariffs at a local level. NRG, through its governmental affairs team, in 2013 supported Texas HB 4, passed in 2013, to fund water projects by the Water Development Board. NRG is a voting member on the Region H

Issues	Choose option	Please explain
		<p>Water Planning Group, which contributes to Texas' State Water Plan. Development of the water plan is a primary function of the Texas Water Development Board (TWDB). This is part of a consensus-based planning effort to include local concerns in the state-wide planning effort and continues to be the model which guides the development of the State Water Plan. NRG's participation in Region H gives us a voice in planning local water use and project development. Region H planning is important to present and future water regulatory frameworks and tariffs at the local level. NRG uses regional government databases, internal company knowledge and membership in stakeholder coalitions to understand and plan for water regulatory frameworks and tariffs at a local level. Examples of membership for water regulatory frameworks: • Association of Electric Companies of Texas • Lower Brazos River Coalition • Galveston Bay Foundation • California Foundation on the Environment and the Economy</p>
<p>Current stakeholder conflicts concerning water resources at a local level</p>	<p>Relevant, included</p>	<p>Water is a key input for many of NRG's power generating stations and it is important to understand stakeholder conflicts concerning water resources at the local level. NRG tracks, monitors and works to resolve stakeholder conflicts. NRG tracks water requests on the Brazos River and protests all new water requests. The water in the Brazos River is 100% accounted for and additional withdrawals will further stress this basin. Region H develops the water plan for the Houston area and NRG participates by reviewing and providing comments. NRG uses regional government databases, internal company knowledge and membership in stakeholder coalitions to understand and plan for stakeholder conflicts concerning water resources at a local level. An example of current stakeholder conflicts at the local level is membership in the Lone Star Groundwater Conservation District. The Houston/Galveston area is located in an area that is reducing groundwater withdrawals due to subsidence. The members met on May 12, 2015 for a public hearing on permit applications. Three requests to increase withdrawals were approved and three permit withdrawal reductions were made. NRG's use of internal knowledge of water needs and regulatory frameworks is used with membership in stakeholder coalitions (Lower Brazos River Coalition), industry groups (Association of Electric Companies of Texas), WRI Aqueduct (water stress modelling), WWF DEG Water Risk Filter (water stress modelling) and Regional government database (USGS water data) to resolve stakeholder conflicts.</p>
<p>Current implications of water on your key commodities/raw materials</p>	<p>Relevant, included</p>	<p>Water is a key commodity to produce a raw material for NRG. NRG uses internal company knowledge and regional government database to assess risk for the current implications of water on key commodities/raw materials. The raw material that requires water for production is natural gas. NRG's key commodities/raw materials are coal and natural gas. Water use in hydraulic fracturing for natural gas extraction is an issue to the industry. Since 2005, according to industry and state data, more than 137,000 fracking wells have been drilled or permitted in more than 20 states. NRG monitors the concerns with fracking, the current oil and gas market has reduced fracking and current production is from established well sites.</p>
<p>Current status of ecosystems and habitats at a local level</p>	<p>Relevant, included</p>	<p>Water is important to ecosystems and habitats at the local level. NRG uses regional government databases, internal company knowledge and Stakeholder Coalitions to monitor the current status of ecosystems and habitats at the local level. NRG conducts annual environmental audits at its generating</p>

Issues	Choose option	Please explain
		<p>facilities through a third party consulting firm. Beginning in 2014, these audits include a review of each site's Biodiversity Plan. Facilities review and update Biodiversity Plans and existing environmental impact assessments annually using internal company knowledge. NRG is on the board of the Galveston Bay Foundation and works to maintain, restore, and protect habitats. This membership is an example of how NRG stays abreast of local habitat and ecosystem concerns. An example of data used for biodiversity can be found in the Galveston Bay Report Card that was issued in 2015 and 2016. The Galveston Bay received a grade of C for overall health. The Water Quality category has improved from a B to an A this year, which is great news for the Bay and the Rivers and Bayous that flow into it. There is evidence that the progress begun with the Clean Water Act in 1972 and continued today in efforts associated with regional watershed protection planning is paying off. Additionally, most fish and bird populations continue to hold steady in the Bay area and the brown pelican continues to be a shining example of a species that has come back from the brink of extinction.</p>
Current river basin management plans	Relevant, included	<p>River basin management plans are important to NRG. NRG is a member of local water stakeholder groups that plan for current and future water availability. NRG reviews and contributes to current and future river basin management plans. The WRI definition of water stress, GEMI Local Water Tool, internal company knowledge, and regional government databases are used to monitor and comply with current river basin management plans. The W. A. Parish plant located in Thompson Texas maintains the Smither's Lake Accounting Plan that has instrumentation and processes in place to continually monitor water withdrawal and discharge from the Brazos River. This data is reported annually to the Texas Water Development Board.</p>
Current access to fully-functioning WASH services for all employees	Relevant, included	<p>A fully-functioning WASH service for all employees is important to NRG. NRG provides access to fully-functioning WASH services for all employees. A safe water supply is a legal requirement at all NRG locations and monitored by each state agency. Every NRG location reports annual water use and this information is included in the NRG annual water inventory that is reported publicly in the NRG Sustainability Report and the data assured by KPMG. Internal Company knowledge of facility water systems by the employees at each location is used to collect information about WASH at NRG facilities.</p>
Estimates of future changes in water availability at a local level	Relevant, included	<p>NRG estimates future changes in water availability at the local level. NRG uses the WRI definition of water stress, WWF-DEG Water Risk Filter, WRI Aqueduct, internal company knowledge and regional government databases are used for to estimate future changes in water availability at a local level. NRG owns and operates generating plants in the Texas Brazos River basin where the water is 100% accounted for. NRG is a board member and participates in Region H meetings, which plan the region's water needs for the future by evaluating local growth in water demand. NRG also works with the Gulf Coast Subsidence District to ensure proper management of groundwater and adequate supply for the future.</p>
Estimates of future potential regulatory changes at a local level	Relevant, included	<p>NRG estimates future potential regulatory changes at the local level. NRG uses regional government databases, internal company knowledge and membership in stakeholder coalitions to understand and estimate future potential regulatory changes at a local level. NRG works with the regulators and</p>

Issues	Choose option	Please explain
		<p>stakeholder groups at local and state level to understand water quality, water availability, and proposed water regulations. NRG is a member of the Texas Industry Project (TIP) led by BakerBotts, which monitors state and federal regulations that impact industry and works with regulators to address regulatory concerns. NRG has a subscription to CyberRegs, a regulatory monitoring system that sends email notifications of all state and federal regulatory changes. The regulatory changes are tracked and communicated to program managers and asset managers to prepare for the implementation of regulations.</p>
<p>Estimates of future potential stakeholder conflicts at a local level</p>	<p>Relevant, included</p>	<p>NRG estimates future potential stakeholder conflicts at the local level. NRG uses “Other: Local/Regional Water Membership”; NRG is a board member and participates in Region H Planning meetings, where all projects and water rights are evaluated and discussed. NRG representatives monitor water availability within the water sheds using Regional databases, such as USGS data and state climatology. All future stakeholders are identified by the Region H Water Planning Board. The Texas Water Development Board must approve and issue water supply to stakeholders. NRG uses the Region H identification of stakeholders as an opportunity to build relationships, understand concerns and challenges of all stakeholders in the water basin. These relationships are important to continued successful operation of NRG generating stations.</p>
<p>Estimates of future implications of water on your key commodities/raw materials</p>	<p>Relevant, included</p>	<p>NRG estimates future implications of water on our key commodities/raw materials. NRG uses internal company knowledge and membership in stakeholder coalitions to understand and evaluate future implications of water on key commodities/raw materials. In 2013, NRG implemented AdaptOne to collect sustainability data from its suppliers. NRG reviews the data in AdaptOne annually for each Tier 1 supplier. NRG holds quarterly business reviews with Tier 1 suppliers to discuss performance which includes business risks, such as water. Research shows that energy production is a comparatively small water user; water consumption from energy development is also expected to decline significantly in the coming decades.</p>
<p>Estimates of future potential changes in the status of ecosystems and habitats at a local level</p>	<p>Relevant, included</p>	<p>NRG estimates future potential changes in the status of ecosystems and habitats at the local level. NRG uses regional government databases, internal company knowledge and membership in stakeholder coalitions to estimate the future potential changes in the status of ecosystems and habitats at the local level. NRG conducts National Environmental Protection Act (NEPA) studies on the property to determine the future potential impacts on the project. Environmental impact assessments, including detailed biological, air quality, water resources, wetlands and other studies are conducted for projects, as required by federal, state or local regulations. NRG uses regional government databases, internal company knowledge and membership in stakeholder coalitions to understand and estimate the future potential changes in the status of ecosystems and habitats at a local level. NRG developed the NEPA plan for the oasis solar project using the government database - Final Threatened and Endangered Species Survey United States Air Force Plant 42 Installation Report (USAF 2009). NRG also has an internal process for conducting annual environmental audits at its operational sites through a third party consulting firm. Beginning in 2014, these audits include a review of each site’s Biodiversity Plan. Facilities review and</p>

Issues	Choose option	Please explain
Scenario analysis of availability of sufficient quantity and quality of water relevant for your operations at a local level	Relevant, included	<p>update Biodiversity Plans and existing environmental impact assessments annually.</p> <p>NRG develops scenario analysis of availability of sufficient quantity and quality of water relevant for operations at the local level. The WRI definition of water stress, GEMI Local Water Tool, internal company knowledge, and regional government databases are used for scenario analysis of availability of sufficient quantity and quality of water relevant for operations at the local level. NRG also uses “Other: Local/Regional Water Membership”: The Texas Water Development Board - Region H, which includes scenario analysis. The 2016 Region H Water Plan includes analysis of future water availability; the plan states: despite adequate overall water supplies for Region H through the year 2070, the Region H Water Planning Group has identified communities that will experience water shortages during the planning period unless there are actions to increase the supplies. Some of these communities will be able to meet their demands simply by extending or increasing existing water supply contracts. The projected shortages identified in the year 2020 totaled 224,047 acre-feet per year, increasing to as much as 1,017,549 acre-feet per year in the year 2070. These needs are exclusive of the needs identified with the Rule-Based Groundwater Disparity identified during the evaluation of existing water supplies.</p>
Scenario analysis of regulatory and/or tariff changes at a local level	Relevant, included	<p>NRG develops scenario analysis of regulatory and/or tariff changes at the local level. NRG works with Regional Government, for example NRG supported the Texas Commission on Environmental Quality, the Texas environmental agency creating a River Master for the Brazos River. This increases costs, but helps to manage water for all stakeholders. NRG uses, “Other: Local/Regional Water Membership”; the estimated cost of the 2016 Region H Water Plan is approximately \$10.9 billion over the 50-year planning period. This cost includes the development of new water sources, estimates for distribution and treatment facilities, and the capital improvements required to achieve agricultural conservation targets. In addition, these costs also include Water User Group-level projects that are required to make the supplies originating from major projects accessible to meet Water User Group demands. NRG uses internal company knowledge, such as; local water contracts include language for excess water use in water contract extensions. NRG uses regional government databases, internal company knowledge and membership in stakeholder coalitions to conduct scenario analysis for water regulatory frameworks and tariffs at a local level.</p>
Scenario analysis of stakeholder conflicts concerning water resources at a local level	Relevant, included	<p>NRG develops scenario analysis of stakeholder conflicts concerning water resources at the local level. NRG uses the WRI definition of water stress, GEMI Local Water Tool, internal company knowledge, Local/Regional Water Membership and regional government databases are used for scenario analysis of availability of sufficient quantity and quality of water relevant for operations at the local level. NRG is a board member and participates in Region H Planning meetings, where all projects and water rights are evaluated and discussed. NRG representatives monitor water availability within the water sheds using Regional databases, such as USGS data and state climatology publicly available websites. All future stakeholders are identified by the Region H Water Planning Board. The Texas Water Development Board must approve and issue water supply to stakeholders. NRG uses the Region H identification of stakeholders as an opportunity to build relationships, understand concerns and challenges of all</p>

Issues	Choose option	Please explain
		<p>stakeholders in the water basin. NRG participates in water planning for Texas Water Development Board - Region H, which includes scenario analysis. The 2017 Region H Water Plan includes analysis of future water availability; the plan states: despite adequate overall water supplies for Region H through the year 2070, the Region H Water Planning Group has identified communities that will experience water shortages during the planning period unless they take action to increase their supplies. Some of these communities will be able to meet their demands simply by extending or increasing existing water supply contracts. The projected shortages identified in the year 2020 totalled 224,047 acre-feet per year, increasing to as much as 1,017,549 acre-feet per year in the year 2070. These needs are exclusive of the needs identified with the Rule-Based Groundwater Disparity identified during the evaluation of existing water supplies.</p>
<p>Scenario analysis of implications of water on your key commodities/raw materials</p>	<p>Relevant, included</p>	<p>NRG conducts scenario analysis of implications of water on our key commodities/raw materials. NRG uses internal company knowledge, stakeholder coalitions, regional government databases and data from our supplier system AdaptOne for scenario analysis of water implications on our key commodities/raw materials. NRG has conducted a scenario analysis of implications of water on key commodities/raw materials. NRG has a diverse supplier network, which we are not dependent on a single supplier. NRG's major commodity is fuel for generating stations. NRG develops scenario analysis for fuel shipments for example, when weather conditions would prevent barge deliveries there is a plan to for fuel to be transported by trucks. NRG operates a diverse portfolio of generating plants with multi-fuel capabilities. This is important because in the Northeastern United States if the weather is cold it is common to curtail natural gas supply to power generators. NRG operates plants that can operate on fuel oil and coal to provide electricity during these critical weather conditions.</p>
<p>Scenario analysis of potential changes in the status of ecosystems and habitats at a local level</p>	<p>Relevant, included</p>	<p>NRG conducts scenario analysis of potential changes in the status of ecosystems and habitats at the local level. NRG uses regional government databases (Houston Area Research Council and Texas Region H), internal company knowledge (Facility and Regional subject matter experts) and membership in stakeholder coalitions (Association of Electric Companies of Texas) to conduct scenario analysis of potential changes in the status of ecosystems and habitats at a local level. NRG works with local water planning groups on scenario analysis of potential changes in the status of ecosystems and habitats at the local level. NRG is on the board and a member of the Lower Brazos River Coalition, the scenario analysis for the Lower Brazos River projects future demand in the watershed will exceed supply by 2060. Freshwater inflow is critical to estuaries and bays to dilute the seawater, creating a habitat for marine life and plants. The inflow brings nutrients and sediments to stabilize wetlands. The lack of flow from this watershed will change the ecosystem and habitats. The Houston Area Research Council (HARC) is a member of Region H and participates in scenario analysis for the Gulf Coast. HARC water research emphasizes water quality and quantity, watershed management, biodiversity and ecological function, and ecosystem information. HARC compiles and analyses numerous databases describing environmental quality, biological and water resources, and aquatic and terrestrial habitats. Integration, analysis, and dissemination of information regarding important water issues is considered key to advancing more</p>

Issues	Choose option	Please explain
Other	Relevant, included	<p>sustainable management of coastal watersheds, water supplies, and water quality.</p> <p>NRG's, electric retail company, Green Mountain Energy using the power of consumer choice to change the way power is made. Green Mountain Energy educates customers and potential customers on water conservation using life cycle assessment of water used for traditional power generation vs renewable power, such as solar and wind power. Water is a precious resource, and choosing renewable energy, which uses virtually no water to produce electricity, is one of the best ways to conserve our limited water supply. Consider that nearly 13 percent of energy used in the U.S. is consumed in the treatment, distribution, reclamation or usage of water, the equivalent annual energy consumption of roughly 40 million Americans.</p>

**W2.7**

**Which of the following stakeholders are always factored into your organization's water risk assessments?**

Stakeholder	Choose option	Please explain
Customers	Relevant, included	<p>NRG considers customers in water risk assessments. NRG has two primary types of customers. 1) 3 million retail customers that have the power chose their retail power provider. 2) Wholesale and Independent System Operators that purchase power from the generating stations. NRG offers our retail customers the ability to conserve water with their selection of an electricity provider. NRG uses internal company knowledge, and regional government databases for water risk assessments. Green Mountain Energy, an NRG Retail brand helps consumers conserve water by offering them an easy way to live a greener lifestyle. Green Mountain Energy has a water saver electricity plan in Texas: Texas customers, choosing renewable energy is an easy and important thing you can do to help protect the environment – and save water! Green Mountain is the only electricity provider in Texas working to help consumers conserve water by giving you an easy way to live a greener lifestyle. Choose 100% wind energy and get FREE water saving products – whether you want to conserve water indoors, or out. Choose the right plan for you. NRG considers the water risk to the system operators and whole sale purchasers of electricity. The power grid is defendant on continuous power supply. To ensure that NRG meets the production demands internal company knowledge, stakeholder coalitions, WRI Aqueduct, WBCSD Global Water Tool, WWF-DEG Water Risk Filter are used for water risk assessments.</p>
Employees	Relevant,	NRG considers employees in water risk assessments. Employees are encouraged to identify and resolve water related

Stakeholder	Choose option	Please explain
	included	<p>issues. All facilities have a water champion that leads their generating station in water conservation and reuse. The method of engagement is through environmental recognition programs stations are rewarded for environmental stewardship. Participants use internal company knowledge, to track, report, and identify improvements in water management at NRG generating facilities. For example, in 2016 NRG generating stations identified projects that saved 401,307,809 gallons of water and saved \$1,315,600.00. The Arizona Energy Center installed a water softener for the cooling tower water make-up that will allow higher cycles of concentration the cooling tower. The water softener will reduce the hardness, which will reduce scaling and lower maintenance costs. The water softener will save 24.9 million gallons of water and will save \$137,000.00 annually. Employees that work in NRG offices are encourage to participate in green teams and become a "Green Ambassador", that look for opportunities to make our offices more sustainable.</p>
Investors	Relevant, included	<p>NRG considers investors in water risk assessments. Investors are concerned about water issues that may negatively impact power generation and impact earnings. All new construction of natural gas powered generation has dry cooling. Investing in new efficient, low water use technologies for power generation may assist in modernizing our portfolio of power generation technologies. For example, the PH Robinson peakers (located in Texas) that have dry cooling technology will be complete in 2017 and the Carlsbad peakers (located in California) which also have dry cooling technology are expected to be complete in 2018. NRG engages with investors in quarterly earnings calls, annual investor meetings, CDP Climate and Water responses, and annual Sustainability Reporting.</p>
Local communities	Relevant, included	<p>NRG considers local communities in water risk assessments. There are areas in which NRG generating facilities and the local community rely on the same water source. The South Texas Nuclear plant withdraws water from the Colorado River, however, the plant does not pull water directly from the river; nor does it discharge directly into the river. Water is pulled via pumps into a 7,000-acre reservoir, where it is held for the plant's use. The reservoir that serves the South Texas Project can hold slightly more than 200,000 acre-feet of water. STP is allowed to withdraw 55 percent of the river's flow above 300 cubic feet per second to fill its reservoir. This means the plant can only withdraw water during periods of high availability and gets nothing when the river runs low. This strategy ensures that water in the Colorado River is available for the communities and not in competition with power generation. NRG engages with the community at the South Texas Project nuclear plant, employees serve on school boards, city councils, chambers, navigation districts and charitable organizations. This investment by employees, supported by the company, has resulted in strong community support for STP which, in turn, has championed more than 60 different charitable agencies, schools, organizations and fundraising activities.</p>
NGOs	Relevant, included	<p>NRG considers NGOs in water risk assessments. NGOs participate in long term planning for water resources and stakeholder engagement for water discharge permits. NRG works with NGOs to ensure water concerns are addressed. For example the Galveston Bay Foundation works with water basin stakeholders to ensure that there is adequate fresh water inflows for the estuaries along the Texas Gulf Coast. The Galveston Bay Foundation broadly identifies the top five issues facing Galveston Bay as follows: * Loss or degradation of coastal habitats (wetlands, sea grass meadows, oyster reefs, etc. and due to issues such as subsidence and erosion, development, invasive species, changing salinities, etc.) * Need for more lands under conservation (Internal Company Knowledge, NRG supplies cord grass and volunteers for restoration projects) * Insufficient freshwater inflows (Other: Local/Regional Water Membership) * Poor water and sediment quality (bacteria, legacy pollutants such as dioxins and PCBs) (Internal Company Knowledge) * Lack of</p>

Stakeholder	Choose option	Please explain
		awareness of the importance of Galveston Bay (Other: Local/Regional Water Membership) NRG is a Galveston Bay Foundation Board Member, attends meetings, supports research (such as HARC Galveston Bay Report Card), to better understand the issues and supports the efforts to address the issues and improve Galveston Bay.
Other water users at a local level	Relevant, included	NRG considers other water users in water risk assessments. For example, the Dickerson Power Plant has a white water training course on the Potomac River for use by professional canoe and kayak paddlers. The coal-fired Dickerson Generating Station draws water from the Potomac to cool its generators, and then discharges the heated water back toward the main river. The water released into the river from once-through cooling is warm and naturally creates a productive environmental that is agreeable to athletes. It remains an active training center for whitewater slalom racing, swift water rescue training, and other whitewater activities. The kayakers and canoes that use the whitewater course depend on the operation of the plant to maintain the course.
Regulators	Relevant, included	NRG considers regulators at a local level in water risk assessments. Regulators set reporting standards and implement regulations. This process identifies regulatory risks such as EPA 316(b), water quality standards and water supply issues. NRG uses Internal Company knowledge of water supply needs, Regional Government databases such as the Texas Commission on Environmental Quality website, and Local Regional Water Membership such as the Texas Industry project to assess regulatory risk. NRG participates in rule making by providing comments and attending stakeholder meetings at the state level.
River basin management authorities	Relevant, included	NRG considers river basin management authorities in risk assessments. NRG supported the addition of a River Master for the lower Brazos River in Texas. The River Masters job is to ensure that flows are met for contract water holders and to work with all stakeholders. NRG's Director of Water Resources serves on the board for the Brazos River Master.
Statutory special interest groups at a local level	Relevant, included	NRG considers statutory special interest groups in water risk assessments. The TWDB was established by the legislature and is responsible for Texas water planning. The mission of the TWDB is to provide leadership, information, education, and support for planning, financial assistance, and outreach for the conservation and responsible development of water for Texas. NRG serves on the board for the Texas Water Development Board (TWDB). The TWDB represents a wide range of stakeholders in the Texas River Basins who are concerned about fair management of water in Texas. These efforts use Internal Company Knowledge and Other: Local/Regional Water Membership. The TWDB consists of 450 regional water planning group voting members. The members are made up of government agencies, concerned individuals, organizations, municipalities, ranchers and farmers, environmentalists and conservationists, businesses and industries, seeking fair and effective water supply management.
Suppliers	Relevant, included	NRG implemented AdaptOne in 2013 to collect supplier information. NRG requests Tier 1 suppliers to complete risk assessment questions including questions about water risk related to quality and quantity, regulatory changes, changes in price and stakeholder conflicts. 17% of suppliers are Tier 1 at present, they represent 20-25% of NRG's supply chain spend and are selected based on factors such as: critical to operational continuity, market conditions, and the length of relationship with NRG. Tier 1 suppliers make up a large percentage of spend and are considered to be representative of NRG's supply chain related water concerns. The water risk information gathered through AdaptOne and Quarterly Business Reviews may be used by the contract administrator during contract awards/renewals. NRG may request suppliers to disclose water information. The reward to suppliers is access to NRG businesses to increase sales and business with NRG. NRG is participating in CDP's Supply Chain Engagement Program for the 2016 reporting cycle. This

Stakeholder	Choose option	Please explain
		will provide transparency in our supply chain on water risks.
Water utilities at a local level	Relevant, included	NRG considers water utilities/suppliers at a local level in water risk assessments. NRG operations in many locations depend on the same water source for operations. A number of NRG locations depend on the local water utility for supply of water needed for operations and treatment of water that is discharged. Facilities engage water utilities to understand water risk to operations. NRG is working with the City of Rosenberg to supply drinking water to city using NRG's pump station. This is of mutual benefit to the city and NRG by controlling costs for the city and utilizing an established pump station.
Other		

## W2.8

Please choose the option that best explains why your organisation does not undertake a water-related risk assessment

Primary reason	Please explain

## Further Information

### Attachments

[https://www.cdp.net/sites/2017/62/13562/Water 2017/Shared](https://www.cdp.net/sites/2017/62/13562/Water%202017/Shared)

[Documents/Attachments/Water2017/W2.ProceduresandRequirements/2016\\_Galveston\\_Bay\\_Full\\_Report\\_8-5-16-webSized.pdf](https://www.cdp.net/sites/2017/62/13562/Water%202017/Shared%20Documents/Attachments/Water2017/W2.ProceduresandRequirements/2016_Galveston_Bay_Full_Report_8-5-16-webSized.pdf)

[https://www.cdp.net/sites/2017/62/13562/Water 2017/Shared Documents/Attachments/Water2017/W2.ProceduresandRequirements/SWP17-Water-for-Texas.pdf](https://www.cdp.net/sites/2017/62/13562/Water%202017/Shared%20Documents/Attachments/Water2017/W2.ProceduresandRequirements/SWP17-Water-for-Texas.pdf)

## Module: Implications

### Page: W3. Water Risks

---

**W3.1**

**Is your organization exposed to water risks, either current and/or future, that could generate a substantive change in your business, operations, revenue or expenditure?**

Yes, direct operations and supply chain

---

**W3.2**

**Please provide details as to how your organization defines substantive change in your business, operations, revenue or expenditure from water risk**

NRG's definition of substantive water risk is the possibility that an event will occur and significantly alter the achievement of NRG's business goals. Risk identification and assessment process applies to both direct operations and supply chain.

NRG uses the measures, metrics and indicators for water risk assessment leveraging the management and professional judgment from the following perspectives:

- Financial impact:
  - 1)Corporate earnings
  - 2)Capital expenditure on technologies to reduce water consumption and withdrawal
- Plant operation
  - 1)Operation disruption due to water shortage
  - 2)Increase in costs of water usage
  - 3)Supply chain risk
- Environmental impact
  - 1)Water availability
  - 3)Water quality of river basins
  - 4)Regulations that impact supply and/or management of water

Water risk is monitored by the risk owners (individual plant operators) and reported to management upon material changes with a threshold of 20% in water consumption and withdrawal levels.

If it is determined that a water supply risk exists that could impact projected generation levels within any plant within the subsequent two year time frame, risk mitigation efforts are identified and economically evaluated for implementation.

NRG receives some of our solid and liquid fuel by barge delivery. Water risk regarding the impact for barge delivery is evaluated on a daily basis, with contingency plans developed as needed. NRG SVP, Plant Operations reviews modelling scenarios generated for water risk determination.

Plant level NRG Water usage analysis is reviewed annually.

NRG water usage analysis is reviewed by the senior leaders of NRG Operations, Engineering and Commercial Operations.

W3.2a

Please provide the number of facilities\* per river basin exposed to water risks that could generate a substantive change in your business, operations, revenue or expenditure; and the proportion of company-wide facilities this represents

Country	River basin	Number of facilities exposed to water risk	Proportion of company-wide facilities that this represents (%)	Comment
United States of America	Brazos River	2	1-5	NRG has 2 stations on the Brazos River that are exposed to water risk. The Brazos River has many stakeholders that depend on water. Drought conditions have the potential to make water unavailable for stakeholders.
United States of America	Colorado River (Pacific Ocean)	1	Less than 1%	NRG has 1 station on the Colorado River (Caribbean Sea) that is exposed to water risk. The Colorado River has many stakeholders that depend on water. Drought conditions have the potential to make water unavailable for stakeholders.
United States of America	Mississippi River	5	1-5	NRG has 5 stations on the Mississippi River that are exposed to water risk. The Mississippi River in Illinois has experienced temperature issues due to low flows during the summer, there are 3 stations. NRG has 1 station on the lower Mississippi that is exposed to risk of water level. NRG has a station on the upper Mississippi that is at risk of the water freezing and could limit fuel supplied by barge.
United States of America	Potomac River	1	Less than 1%	NRG has 1 station on the Potomac River that is exposed to water risk. The Potomac River is impaired by nutrients from agriculture runoff.
United States of America	Other:	3	1-5	NRG has 3 generating stations located in United States of America, 'Other basins.' One facility is exposed to water risk from the basin being impaired by nutrients from agriculture runoff. The second facility uses ground water; this facility is in a subsidence district and is subject to changing regulations on ground water withdrawal. The third facility is on the Sabine River, where the site is below the 100 year flood plain. The facility was flooded in March 2016.
Turkey	Other:	1	Less than 1%	NRG owns 80% of a generating station in 'Turkey, Other basins.' Municipal water use accounts for about 16% of total water use in Turkey, compared to 76% used by agriculture and 12% by industry. Total water withdrawals for all uses accounted for only 17% of total available water resources in an average year (average 1977-2001). Municipal water use thus accounted for only about 3% of available water resources. However, water availability is highly seasonal and is not equally distributed throughout the country. Local and regional water shortages occur despite ample average water availability. For example, in 2007 a severe drought hit the entire

Country	River basin	Number of facilities exposed to water risk	Proportion of company-wide facilities that this represents (%)	Comment
				Mediterranean coast as well as Central Anatolia and threatened the water supply of Istanbul.

### W3.2b

For each river basin mentioned in W3.2a, please provide the proportion of the company's total financial value that could be affected by water risks

Country	River basin	Financial reporting metric	Proportion of chosen metric that could be affected	Comment
United States of America	Brazos River	% generation capacity	11-20	NRG has 2 stations on the Brazos River that are exposed to water risk. The stations are on the Brazos River Basin for water supply and have a capacity of 5,349 MWs. NRG's total capacity is 49,215 MW.
United States of America	Colorado River (Pacific Ocean)	% generation capacity	1-5	NRG has 1 station on the Colorado River (Pacific Ocean) that is exposed to water risk. NRG owns a capacity of 1,136 MWs at this station on the Colorado River (Pacific Ocean) Basin for water supply. NRG's total capacity is 49,215 MW.
United States of America	Mississippi River	% generation capacity	11-20	NRG has 5 stations on the Mississippi River that are exposed to water risk. The stations are on the Mississippi River Basin for water supply has capacity of 5,400 MWs. NRG's total capacity is 49,215 MW.
United States of America	Potomac River	% generation capacity	1-5	NRG has 1 station on the Potomac River that is exposed to water risk. The station is located on the Potomac River Basin for water supply have a capacity of 849 MWs. NRG's total capacity is 49,215 MW.
United States of America	Other:	% generation capacity	6-10	NRG has 3 other stations that are exposed to water risk. The stations have a capacity of 4,567 MWs. NRG's total capacity is 49,215 MW.
Turkey	Other:	% generation capacity	Less than 1%	NRG has 1 station in Turkey that is exposed to water risk. NRG owns a capacity of 144 MWs at this station. NRG's total capacity is 49,215 MW.

W3.2c

Please list the inherent water risks that could generate a substantive change in your business, operations, revenue or expenditure, the potential impact to your direct operations and the strategies to mitigate them

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
United States of America	Brazos River	Physical-Climate change Physical-Drought Physical-Increased water scarcity Physical-Increased water stress Physical-Projected water scarcity Physical-Projected water stress Physical-Rationing of municipal water supply Physical-Seasonal supply variability/Inter annual	Plant/production disruption leading to reduced output	NRG has 2 stations located on the Brazos River. The Brazos River is important to NRG operations. The Brazos River has many stakeholders that depend on water. The water in the Brazos River is 100% accounted for through water rights. Drought conditions have the potential to make water unavailable for stakeholders. This impact is current and is	1-3 years	Unlikely	High	Engagement with community Engagement with customers Engagement with public policy makers Engagement with other stakeholders in the river basin Engagement with suppliers Establish site-specific targets Increased investment in new technology New	NRG has a Director of Water Resource that serves one the Watermaster Advisory Committee and was elected as Chairman. The cost for firm water and the watermaster are \$3.2 million annually for 145,000 acre feet of water. The cost of the strategy is derived from 1 FTE + the cost of	NRG has secured "firm" water supplies through contracts with the Brazos River Authority (BRA) for 150,000 ac.ft/yr through state-issued permits; issued in 1926. The BRA control more than 750,000 ac.ft of water stored in 11 large reservoirs across the Brazos River Basin. "Firm" water is the amount of

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
		variability Regulatory-Regulation of discharge quality/volumes leading to higher compliance costs Regulatory-Regulatory uncertainty Reputational-Community opposition Reputational-Negative media coverage		modeled to 2060.				products, markets Promote best practice and awareness Strengthen links with local community Tighter supplier performance standards Water management incentives	the water + the cost of the Watermaster.	water that has been modelled by the Texas Commission on Environmental Quality as being available on a year-to-year basis through the 9 year "drought of record" in the Brazos River Basin. NRG was one of several parties that successfully petitioned for implementation of a watermaster program in the Brazos River Basin, a Texas Commission on Environmental Quality program that regulates

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										diverters in accordance with state water law during periods of water shortage. These NRG stations are located in the Gulf Coast Region and the cost of the strategy is approximately \$3.2 million of \$11,194 million total NRG Business operating revenues. The cost of the strategy is derived from 1 FTE + the cost of the water + the cost of the Watermaster.
United States of America	Colorado River (Pacific Ocean)	Physical-Declining water quality Physical-Drought	Plant/production disruption leading to reduced output	NRG has 1 station on the Colorado River (Pacific Ocean) that are	4-6 years	Unlikely	Medium-high	Engagement with community Engagement with	NRG has a Director of Water Resource that	NRG owns 44% of the South Texas Project that is managed by

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
		Physical-Increased water scarcity Physical-Increased water stress Physical-Projected water scarcity Physical-Projected water stress Physical-Seasonal supply variability/Inter annual variability Regulatory-Regulatory uncertainty Regulatory-Unclear and/or unstable regulations on water allocation and wastewater discharge Reputational-Community opposition Reputational-Litigation		exposed to water risk. Since 2000, the Colorado River Basin has been experiencing a historic, extended drought that has impacted regional water supply and other resources, such as hydropower, recreation, and ecologic services. During this time, the Basin has experienced its lowest 16-year period of inflow in over 100 years of record keeping, and reservoir storage in the Colorado River system has declined from nearly full to about half of capacity.				customers Engagement with public policy makers Engagement with other stakeholders in the river basin Engagement with suppliers Establish site-specific targets Promote best practice and awareness Supplier diversification Water management incentives	coordinates with the South Texas Project Water Manager. The South Texas Project has a take or pay contract, which NRG is responsible for 44%. The cost of the strategy is derived from .5 FTE + the cost of the water, which is \$0.5 million annually.	South Texas Project Nuclear Operating Company (STPNOC). STPNOC has a take or pay contract with the Lower Colorado River Authority. The South Texas Nuclear plant withdraws water from the Colorado River. Water is pumped into a 7,000-acre reservoir, where it's held for the plant's use. The reservoir that serves the South Texas Project can hold slightly more than 200,000 acre-feet of water, which is

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
		Reputational-Negative media coverage								<p>enough water supply for 9 years. STP is allowed to withdraw 55 percent of the river's flow above 300 cubic feet per second to fill its reservoir. This means the plant can only withdraw water during periods of high availability and gets nothing when the river runs low. This strategy ensures that water in the Colorado River is available for the communities and not in competition with power generation. NRG's share of STPNOC's</p>

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										water is \$0.5 million per year, this includes the cost of water and personnel to manage the contracts.
United States of America	Mississippi River	Physical-Increased water stress Physical-Projected water stress Physical-Seasonal supply variability/Inter annual variability Regulatory-Regulatory uncertainty Regulatory-Unclear and/or unstable regulations on water allocation and wastewater discharge Reputational-Community	Transport disruption	NRG has 5 stations located on the Mississippi River in Illinois. The Mississippi River has experienced temperature issues due to low flows during the summer. The drought of 2012 created operational challenges for these electric generating stations.	1-3 years	Probable	Medium-high	Engagement with community Engagement with public policy makers Engagement with other stakeholders in the river basin Establish site-specific targets	NRG water response strategy for the Mississippi is to manage discharge flows with an FTE. The current cost is a 0.1 FTE tracking water temperatures in the summer and modelling discharge temperatures. The average cost for the .1 FTE would be \$10,000.00	NRG acquired these stations on April 1, 2014. The summer of 2014 was very cool and there were no water temperature issues. NRG is working on a long term strategy to ensure that water temperature does not impact operations. The research is being conducted and the exact solution or cost has not

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
		<p>opposition</p> <p>Reputational-Litigation</p> <p>Reputational-Negative media coverage</p>								<p>been determined. The current cost to manage this risk is perceived to be very low.</p>
United States of America	Potomac River	<p>Physical-Pollution of water source</p> <p>Regulatory-Regulation of discharge quality/volumes leading to higher compliance costs</p> <p>Regulatory-Regulatory uncertainty</p> <p>Regulatory-Unclear and/or unstable regulations on water allocation and wastewater discharge</p> <p>Reputational-Community opposition</p>	Litigation	<p>NRG has 1 station on the Potomac River Basin. The Potomac River is impaired by nutrients from agriculture runoff.</p>	Current-up to 1 year	Highly probable	Medium	<p>Engagement with community</p> <p>Engagement with public policy makers</p> <p>Engagement with other stakeholders in the river basin</p> <p>Establish site-specific targets</p>	<p>NRG is managing water risks in the Potomac River Basin by controlling the total water withdrawals and discharges with reductions of 350,000-445,000 GPD MIN OR 127,750,000 to 162,425,000 GAL/YR+. The cost of the strategy to upgrade controls was</p>	<p>The station undertook water conservation to reduce the amount of nutrients in our wastewater. Nutrients, nitrogen and phosphorus are harmful to receiving bodies of water as they cause algae blooms that reduce available oxygen for other organisms. Nutrient Total Maximum</p>

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
		Reputational-Litigation Reputational-Negative media coverage							\$70 thousand of \$11,194 million total NRG Business operating revenues. In 2016 NRG signed a consent decree with Maryland Department of Environment for a \$1 Million penalty and \$1 Million in supplemental environmental projects.	Daily Limits (TMDL's) set by Maryland Department of Environment (MDE) and the Environmental Protection Agency (EPA) for Chesapeake Bay and major tributaries like the Potomac River – the Plant's receiving body. Before merging with NRG, GenOn submitted a request to reopen the NPDES permit to Maryland Department of Environment (MDE) in August 2010, and had been working with MDE to resolve this issue since

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										<p>that time. Since the scrubber wastewater treatment system was brought on line in late 2009, we have continued to explore all options to increase the effectiveness of the system, including:</p> <ul style="list-style-type: none"> <li>•Lowering and equalizing the chlorides in the Sequential Batch Reactor (SBRs).</li> <li>•Enhanced use of Klaraid in the SBRs and the effluent tank</li> <li>•Improved clarifier performance</li> <li>•Improved temperature stabilization</li> <li>•Capturing</li> </ul>

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										<p>ammonia rich plant demineralizer regeneration wastewater and routing it to the WWTP for nitrogen removal</p> <ul style="list-style-type: none"> <li>•Hiring a consultant with specific expertise in the operation of SBRs to improve operational results</li> <li>•In 2014 we completed the pilot study that showed lower, controlled solids retention times in the SBRs would help the station maintain nutrient levels in the 4 mg/l range. To be able to run at such a low</li> </ul>

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										SRT, filters that could capture, quantify and return solids to the SBRs would be necessary. NRG ran a membrane study to ensure that technology would be compatible with the scrubber wastewater. In addition, we are in the process of installing new instrumentation to the SBRs that could improve operations.
United States of America	Other:	Physical- Pollution of water source Regulatory- Regulation of discharge	Plant/production disruption leading to reduced output	NRG has 3 stations located in "Other" in the United States. The largest station among	Current-up to 1 year	Highly probable	Medium-high	Engagement with community Engagement with public policy	NRG is managing water risks by controlling the total water	The Chalk Point station undertook water conservation to reduce the

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
		<p>quality/volumes leading to higher compliance costs</p> <p>Regulatory-Regulatory uncertainty</p> <p>Regulatory-Unclear and/or unstable regulations on water allocation and wastewater discharge</p> <p>Reputational-Community opposition</p> <p>Reputational-Litigation</p> <p>Reputational-Negative media coverage</p>		the three is Chalk Point, where the water risk is impaired by nutrients from agriculture runoff.				<p>makers Engagement with other stakeholders in the river basin</p> <p>Establish site-specific targets</p> <p>Infrastructure investment</p> <p>Infrastructure maintenance</p> <p>Promote best practice and awareness</p> <p>Tighter supplier performance standards</p>	<p>withdrawals and discharges with reductions of 350,000-445,000 GPD MIN</p> <p>OR</p> <p>127,750,000 to 162,425,000 GAL/YR+.</p> <p>The cost of the strategy to study plant water flows and upgrade controls was \$230 thousand of \$11,194 million total</p> <p>NRG Business operating revenues. In 2016 Chalk Point signed a consent decree with Maryland Department of</p>	<p>amount of nutrients in our wastewater. Nutrients, nitrogen and phosphorus are harmful to receiving bodies of water as they cause algae blooms that reduce available oxygen for other organisms.</p> <p>Nutrient Total Maximum Daily Limits (TMDL's) set by Maryland Department of Environment (MDE) and the Environmental Protection Agency (EPA) for Chesapeake Bay and major tributaries like the Potomac</p>

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
									<p>Environment for a \$1 Million penalty and \$1 Million in supplemental environmental projects.</p>	<p>River – the Plant's receiving body. Before merging with NRG, GenOn submitted a request to reopen the NPDES permit to Maryland Department of Environment (MDE) in August 2010, and has been working with MDE to resolve this issue since that time. Since the scrubber wastewater treatment system was brought on line in late 2009, we have continued to explore options to increase the effectiveness</p>

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										<p>of the system, including:</p> <ul style="list-style-type: none"> <li>•Lowering and equalizing the chlorides in the Sequential Batch Reactor (SBRs).</li> <li>•Enhanced use of Klaraid in the SBRs and the effluent tank</li> <li>•Improved clarifier performance</li> <li>•Improved temperature stabilization</li> <li>•Capturing ammonia rich plant demineralizer regeneration wastewater and routing it to the WWTP for nitrogen removal</li> <li>•Hiring a consultant with specific expertise in the operation</li> </ul>

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										<p>of SBRs to improve operational results</p> <ul style="list-style-type: none"> <li>In 2014 we completed the pilot study that showed lower, controlled solids retention times in the SBRs would help the station maintain nutrient levels in the 4 mg/l range. To be able to run at such a low SRT, filters that could capture, quantify and return solids to the SBRs would be necessary. NRG ran a membrane study to ensure that technology would be</li> </ul>

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										compatible with the scrubber wastewater. In addition, we are in the process of installing new instrumentation to the SBRs that could improve operations.
Turkey	Other:	Physical-Inadequate infrastructure Physical-Increased water scarcity Physical-Increased water stress Physical-Projected water scarcity Physical-Rationing of municipal water supply Reputational-Community opposition	Plant/production disruption leading to reduced output	NRG owns 80 percent of the Doga station in Istanbul Turkey.	4-6 years	Unlikely	Low-medium	Engagement with community Engagement with customers Engagement with public policy makers Engagement with other stakeholders in the river basin Infrastructure investment Infrastructure maintenance	NRG owns 80% of the Doga Generating facility. The facility uses municipal water supply for make-up. The facility has minimal water cost for power generation. NRG's cost of water is \$200,000.00.	NRG owns 80% of Doga Generating Station. Water is purchased from the local municipal water supply. The water strategy is that the facility is a new efficient combined cycle that uses minimal water for electric power generation. Water is only used for

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
								Strengthen links with local community		steam and uses radiators for dry (waterless) cooling.

**W3.2d**

Please list the inherent water risks that could generate a substantive change in your business operations, revenue or expenditure, the potential impact to your supply chain and the strategies to mitigate them

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
United States of America	Mississippi River	Physical-Drought Physical-Flooding Physical-Seasonal supply variability/Inter annual variability	Transport disruption	NRG has inherent water risks that have the potential to impact fuel supply. The Mississippi River is used to move coal	Current-up to 1 year	Probable	Low-medium	Develop flood emergency plans Engagement with other stakeholders in the river basin Engagement with suppliers	NRG ComOps Managers and a Meteorologist manage risk of fuel delivery. The cost is apportioned to time associated with logistics of	NRG has inherent water risks that have the potential to impact fuel supply. NRG's fuel supplied by barge transportation requires

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
				by barge. NRG has 2 stations that receive coal delivery from barges. Severe flooding or drought can limit or stop barge traffic. The reduced access to the river could impact fuel supply.				Establish site-specific targets Infrastructure maintenance Greater due diligence Supplier diversification	barged coal and the meteorologist is \$50,000.00 per year of 11,194 million total NRG Business revenues. Fuel delivery risk is minimized by maintaining a 25 day supply; this gives time to react to issues as they arise. NRG Coal Inventory on December 31, 2014 was valued at \$414 million and would represent the average daily coal inventory for NRG's generating fleet.	constant monitoring of weather and river conditions. NRG has a staff meteorologist to forecast weather; this information is used to create strategies to ensure fuel deliveries. The cost is apportioned to time associated with logistics of barged coal and the meteorologist. To minimize risk NRG must understand the process of moving materials by barge and the risks associated with each river segment. NRG has developed a decision tree of solutions to recognize problems and

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										<p>get ahead of this issue to minimize risk and to maintain electric generation. For example, if fuel is unable to be loaded at the preferred port, it is likely that the fuel can be loaded at another location. If fuel cannot be delivered by barge it can be trucked in. Trucking fuel is more expensive than barge delivery, but the increased demand for electricity would make fuel trucking economically feasible. As part of the risk minimization strategy it is important that NRG</p>

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										<p>understand the demand for barge transportation for other commodities, such as, grain and chemicals. These commodities fluctuate in delivery volumes and can increase delivery time. NRG also minimizes fuel delivery risk by maintaining a 25 day fuel supply; this gives lead time to react to issues as they arise. NRG Coal/Lignite Inventory on December 31, 2014 was valued at \$414 million and would represent the average daily coal inventory for</p>

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										NRG's generating stations.

W3.2e

Please choose the option that best explains why you do not consider your organization to be exposed to water risks in your direct operations that could generate a substantive change in your business, operations, revenue or expenditure

Primary reason	Please explain
----------------	----------------

W3.2f

Please choose the option that best explains why you do not consider your organization to be exposed to water risks in your supply chain that could generate a substantive change in your business, operations, revenue or expenditure

Primary reason	Please explain
----------------	----------------

---

W3.2g

Please choose the option that best explains why you do not know if your organization is exposed to water risks that could generate a substantive change in your business operations, revenue or expenditure and discuss any future plans you have to assess this

Primary reason	Future plans
----------------	--------------

---

**Further Information**

**Attachments**

[https://www.cdp.net/sites/2017/62/13562/Water 2017/Shared Documents/Attachments/Water2017/W3.WaterRisks/2016-sasb-table-for-sustainability-report.pdf](https://www.cdp.net/sites/2017/62/13562/Water%202017/Shared%20Documents/Attachments/Water2017/W3.WaterRisks/2016-sasb-table-for-sustainability-report.pdf)

**Page: W4. Water Opportunities**

---

**W4.1**

**Does water present strategic, operational or market opportunities that substantively benefit/have the potential to benefit your organization?**

Yes

---

**W4.1a**

**Please describe the opportunities water presents to your organization and your strategies to realize them**

Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Comment
United States of America	Carbon management Climate change adaptation Competitive advantage Increased brand value Increased shareholder value Regulatory changes Social licence to operate	NRG recognizes that traditional power generation uses large amounts of water. Water supply is not available in all locations. Renewable energy emits no CO2 and uses little or no water. One way to realize this opportunity is to expand our portfolio of renewables. NRG Yield LLC, together with its consolidated subsidiaries is a limited liability company formed to serve as the primary vehicle through which NRG owns, operates and acquires contracted renewable and conventional generation and thermal infrastructure assets. NRG believes it is well positioned to be a premier company for investors seeking stable and growing dividend income from a diversified portfolio of lower-risk, high-quality assets.	1-3 years	In 2016 NRG Energy finalized its purchase of roughly 1,500 MW of utility-scale solar and wind projects from bankrupt SunEdison for \$183 million. NRG bought SunEdison's 265-MW interest in a portfolio of seven fully contracted solar plants in Utah with a total capacity of 530 MW. NRG also acquired a 154-MW fully contracted but partially built solar park in Texas, and 1,100 MW of solar and wind projects in various stages of development, including 111 MW of construction-ready assets in Hawaii. Additionally, outside of the bankruptcy process, NRG bought a 29-MW portfolio of distributed generation and community solar projects from SunEdison.

**W4.1b**

Please choose the option that best explains why water does not present your organization with any opportunities that have the potential to provide substantive benefit

Primary reason	Please explain
----------------	----------------

**W4.1c**

Please choose the option that best explains why you do not know if water presents your organization with any opportunities that have the potential to provide substantive benefit

Primary reason	Please explain
----------------	----------------

---

**Further Information**

**Attachments**

[https://www.cdp.net/sites/2017/62/13562/Water 2017/Shared Documents/Attachments/Water2017/W4.WaterOpportunities/2016 NRG Yield 10-K.pdf](https://www.cdp.net/sites/2017/62/13562/Water%202017/Shared%20Documents/Attachments/Water2017/W4.WaterOpportunities/2016%20NRG%20Yield%2010-K.pdf)

**Module: Accounting**

**Page: W5. Facility Level Water Accounting (I)**

---

**W5.1**

**Water withdrawals: for the reporting year, please complete the table below with water accounting data for all facilities included in your answer to W3.2a**

Facility reference number	Country	River basin	Facility name	Total water withdrawals (megaliters/year) at this facility	How does the total water withdrawals at this facility compare to the last reporting year?	Please explain
Facility 1	United States of America	Brazos River	Limestone Generating Station	18511.61	Much lower	In 2016 water withdrawal decreased by 28%, while electricity production remained the same, service hours increased by 5% compared to 2015. The decrease water withdrawal is due to increased condenser efficiency on the generating units.
Facility 2	United States of America	Brazos River	WA Parish Generating Station	60800.92	Much lower	In 2016 water withdrawal decreased by 23%, while electricity production decreased by 16%, service hours decreased by 9% compared to 2015. The decrease in water withdrawal is due to decreased demand.
Facility 3	United States of America	Colorado River (Pacific Ocean)	South Texas Project, Nuclear Station	21520.22	Much lower	In 2016 water withdrawal decreased by 61%, while electricity production increased by 11%, service hours increased by 12% compared to 2015. The decreased withdrawal is due to the cooling lake level being full in at the end of 2015 and remaining full in 2016.
Facility 4	United States of America	Mississippi River	Cheswick Generating Station	151036.62	Much lower	In 2016 water withdrawal decreased by 18%, while electricity production remained the same, service hours decreased by 14% compared to 2015. The decrease in water withdrawal is due to the decrease in service hours.
Facility 5	United States of America	Mississippi River	Big Cajun 2 Generating Station	396598.80	About the same	In 2016 water withdrawal remained the same, while electricity production decreased by 16%, service hours decreased by 6% compared to 2015. The station operation was very similar to the previous year and water withdrawal remained the same.
Facility 6	United States of America	Mississippi River	Will County Generating Station	276634.65	Much lower	In 2016 water withdrawal decreased by 62%, while electricity production decreased by 24%, service hours decreased by 35% compared to 2015. The decrease in withdrawal is due to lower demand and management of cooling water pumps to reduce auxiliary power

Facility reference number	Country	River basin	Facility name	Total water withdrawals (megaliters/year) at this facility	How does the total water withdrawals at this facility compare to the last reporting year?	Please explain
						usage.
Facility 7	United States of America	Mississippi River	Joliet Generating Station	967768.59	Much lower	NRG converted the 3 Joliet coal units to natural gas beginning 2015 and completing the conversion the first quarter of 2016. In 2016 water withdrawal decreased by 43%, while electricity production decreased by 73%, service hours decreased by 69% compared to 2015. The reduction in withdrawal is due the reduction in power demand.
Facility 8	United States of America	Mississippi River	Powerton Generating Station	19084.49	Much lower	In 2016 water withdrawal decreased by 35%, while electricity production increased by 22%, service hours decreased by 24% compared to 2015. The reduction in withdrawal is due the reduction in power demand.
Facility 9	United States of America	Potomac River	Dickerson Generating Station	312128.92	About the same	In 2016 water withdrawal remained the same, electricity production remained the same, service hours remained the same compared to 2015. The station operation was very similar to the previous year and water withdrawal remained the same.
Facility 10	United States of America	Other:	Chalk Point Generating Station	538523.92	Much lower	In 2016 water withdrawal decreased by 34%, while electricity production increased by 33%, service hours increased by 19% compared to 2015. The reduction in withdrawal is due to managing the cooling water pumps to reduce auxiliary power usage and water withdrawal.
Facility 11	United States of America	Other:	TH Wharton Generating Station	1612.85	Lower	In 2016 water withdrawal decreased by 7%, while electricity production remained the same, service hours remained the same compared to 2015. The decrease in water withdrawal is related to efficient operation of the water supply wells.

Facility reference number	Country	River basin	Facility name	Total water withdrawals (megaliters/year) at this facility	How does the total water withdrawals at this facility compare to the last reporting year?	Please explain
Facility 12	United States of America	Other:	Cottonwood Generating Station	4802.13	Much lower	In 2016 water withdrawal decreased by 33%, while electricity production decreased by 31%, service hours decreased by 32% compared to 2015. The decrease in water withdrawal is due to the generating plant being impacted by a flood in 2016 and was out of service for repairs for 4 months.
Facility 13	Turkey	Other:	Doga Generating Station	109.96	Much lower	In 2016 water withdrawal decreased by 17%, while electricity production remained the same, service hours remained the same compared to 2015. The decrease in water withdrawal is due to improvements to the reverse osmosis treatment system allowing the reuse of water.

---

**Further Information**

**Page: W5. Facility Level Water Accounting (II)**

---

**W5.1a**

**Water withdrawals: for the reporting year, please provide withdrawal data, in megaliters per year, for the water sources used for all facilities reported in W5.1**

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
Facility 1	18510.83	0	0	0	0.78	0	0	0	The Limestone Generating Station withdraws fresh surface water from Lake Limestone as make-up to cooling towers. Ground water is used for potable water and steam generation. The station uses coal as a fuel source.
Facility 2	39116.40	0	18852.65	0	2831.87	0	0	0	The WA Parish Generating Station withdraws fresh surface water from the Brazos River as make-up to a cooling lake (Smithers Lake) for cooling water and make-up to cooling towers. Ground water is used for potable water and steam generation. Rainwater that falls on station property is diverted to Smithers Lake for cooling water. The station uses coal and natural gas as a fuel source. The

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
									station added carbon capture and it began operating in 2017.
Facility 3	0	8369.46	12448.62	0	702.14	0	0	0	NRG owns 44% of the South Texas Project. This generating station withdraws water from the Colorado River to maintain a cooling lake. The facility only withdraws water when there is above average water in the river. Groundwater is used for potable water and steam generation. Rainwater that falls on station property is diverted to cooling lake. The South Texas Project is a nuclear power station.
Facility 4	148220.14	0	0	2590.89	222.13	0	3.46	0	The Cheswick Generating Station uses water from the Allegheny River for once through cooling. Groundwater is used for steam

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
									generation. Municipal water supply is used for potable water. The station uses coal as a fuel source.
Facility 5	396112.40	0	0	0	486.40	0	0	0	The Big Cajun II Generating Station withdraws fresh surface water from the Mississippi River for condenser cooling. Groundwater is used for steam generation and potable water. The station has two coal and one natural gas powered electric generating units.
Facility 6	276553.23	0	0	0	81.42	0	0	0	The Will County Generating Station withdraws fresh surface water for once through cooling and coal as a fuel source. Ground water is used for steam generation and potable water. This station was slated to be decommissioned in 2015, but due to power demand one

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
									unit at the station continues to operate.
Facility 7	967126.17	0	0	0	642.42	0	0	0	The Joliet Generating Station withdraws fresh surface from water from the Des Plaines River for once through cooling. Groundwater is used for steam generation and potable water. The station switch from coal to natural gas as a fuel source in the first quarter of 2016.
Facility 8	18557.55	0	0	0	526.94	0	0	0	The Powerton Generating Station withdraws fresh surface water from the Illinois River to supply a cooling lake. Ground water is used for steam generation and potable water. The station uses coal as a fuel source.
Facility 9	312119.61	0	0.86	0	8.45	0	0	0	The Dickerson Generating Station withdraws fresh surface water from

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
									the Potomac River for once through cooling and steam generation. Ground water is used for potable water. Small amounts of rainwater is captured and used in station processes. The station uses coal and natural gas as fuel sources.
Facility 10	0	537005.18	0	0	1518.74	0	0	0	The Chalk Point Generating Station withdraws brackish surface water from the Patuxent River for once through cooling. Ground water is used for steam generation. The station uses coal and natural gas as fuel sources.
Facility 11	0	0	158.23	0	1454.62	0	0	0	The TH Wharton Generating Station withdraws fresh groundwater water that is used as make-up to cooling towers, potable water and steam generation. The station uses natural

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
Facility 12	4794.32	0	0	0	0	0	7.81	0	gas as a fuel source. The Cottonwood Generating Station withdraws fresh surface water from the Sabine River as make-up to cooling towers and steam generation. Municipal water is used for potable water. The station uses natural gas as a fuel source.
Facility 13	0	0	0	0	0	0	109.96	0	The Doga Generating Station uses municipal water for make-up to cooling towers, potable water and steam generation. The station uses natural gas as a fuel source.

**W5.2**

**Water discharge:** for the reporting year, please complete the table below with water accounting data for all facilities included in your answer to W3.2a

Facility reference number	Total water discharged (megaliters/year) at this facility	How does the total water discharged at this facility compare to the last reporting year?	Please explain
Facility 1	0	About the same	The Limestone Generating Station maintains an NPDES permit; it did not discharge in 2015 or 2016. This station has operated as a zero discharge facility for 10 years.
Facility 2	31477.41	Higher	The WA Parish Generating Station discharge was 6% higher in 2016. The increase in discharge is related to increased rainfall. The station has a cooling lake that captures rainwater, excess rainwater will be monitored and discharged through a permitted outfall.
Facility 3	12.09	Much lower	The South Texas Project discharge was 98% less in 2016. The decrease in discharge is related to increased rainfall. The station has a cooling lake that captures rainwater. The cooling lake filled in 2016 from the increase in rainwater.
Facility 4	146004.80	Much lower	The Cheswick Generating Station discharge was 21% less in 2016. This is consistent with the 18% reduction in water withdrawal. The station used less water because it operated 14% less service hours.
Facility 5	384511.62	About the same	The Big Cajun II Generating Station discharge was 5% less in 2016. This is about the same as 2015. The service hours were about the same for 2016.
Facility 6	275861.85	Much lower	The Will County Generating Station discharge was 62% less in 2016. This is consistent with the 62% reduction in water withdrawal. The station used less water because it 35% less service hours.
Facility 7	964425.63	Much lower	The Joliet Generating Station discharge was 43% less in 2016. This is consistent with the 43% reduction in water withdrawal. The station used less water because it 69% less service hours.
Facility 8	0	About the same	The Powerton Generating Station maintains an NPDES permit; it did not discharge in 2015 or 2016. This station has operated as a zero discharge facility.
Facility 9	311973.75	About the same	The Dickerson Generating Station discharge was about the same in 2016 as 2015. The service hours and amount of power generation were about the same for 2016.
Facility 10	531925.01	Much lower	The Chalk Point Generating Station discharge was 34% less in 2016. This is consistent with the 34% reduction in water withdrawal. The station used less water because it 19% less service hours.
Facility 11	1252.86	Much higher	The TH Wharton Generating Station discharge was 19% higher in 2016. The increase in discharge is related to increased rainfall. The station has a series of ponds that cool the water prior discharge through a permitted outfall. The ponds capture rainwater, excess rainwater will be monitored and discharged through a permitted outfall.
Facility 12	372.17	Much lower	The Cottonwood Generating Station discharge was 64% less in 2016. This Station was flooded in 2016 and did not operate for 5 months for recondition the station.
Facility 13	15.77	Lower	The Doga Generating Station discharge was 11% less in 2016. This is consistent with the 17% reduction in water withdrawal. The station used less water because it completed upgrades to the reverse osmosis system.

W5.2a

Water discharge: for the reporting year, please provide water discharge data, in megaliters per year, by destination for all facilities reported in W5.2

Facility reference number	Fresh surface water	Municipal/industrial wastewater treatment plant	Seawater	Groundwater	Wastewater for another organization	Comment
Facility 1	0	0	0	0	0	The Limestone Generating Station maintains an NPDES permit; it did not discharge in 2015 or 2016. This station has operated as a zero discharge facility for 10 years.
Facility 2	31477.41	0	0	0	0	The WA Parish Generating Station discharged fresh surface water in 2016 through permitted outfalls. All discharges were within permit limits.
Facility 3	0	0	12.09	0	0	The South Texas Project discharged brackish surface water in 2016 through permitted outfalls. All discharges were within permit limits. Water is discharge back to the Colorado River, the same water body as the withdrawal.
Facility 4	145990.54	14.26	0	0	0	The Cheswick Generating Station discharged fresh surface water in 2016 through permitted outfalls. All discharges were within permit limits. Water is discharge back to the Allegheny River, the same water body as the withdrawal. The station discharges WASH to the municipal treatment system.
Facility 5	384511.62	0	0	0	0	The Big Cajun II Generating Station discharged fresh surface water in 2016 through permitted outfalls. All discharges were within permit limits. Water is discharge back to the Mississippi River, the same water body as the withdrawal.
Facility 6	275861.85	0	0	0	0	The Will County Generating Station discharged fresh surface water in 2016 through permitted outfalls. All discharges were within permit limits. Water is discharge back to the Des Plaines River, the same water body as the withdrawal.
Facility 7	964425.63	0	0	0	0	The Joliet Generating Station discharged fresh surface water in 2016 through permitted outfalls. All discharges were within

Facility reference number	Fresh surface water	Municipal/industrial wastewater treatment plant	Seawater	Groundwater	Wastewater for another organization	Comment
						permit limits. Water is discharge back to the Des Plaines River, the same water body as the withdrawal.
Facility 8	0	0	0	0	0	The Powerton Generating Station maintains an NPDES permit; it did not discharge in 2015 or 2016. This station has operated as a zero discharge facility.
Facility 9	311973.75	0	0	0	0	The Dickerson Generating Station discharged fresh surface water in 2016 through permitted outfalls. All discharges were within permit limits. Water is discharge back to the Potomac River, the same water body as the withdrawal.
Facility 10	1052.63	0	530872.15	0	0	The Chalk Point Generating Station discharged brackish surface water in 2016 through permitted outfalls. All discharges were within permit limits. Water is discharge back to the Patuxent River, the same water body as the withdrawal. A small volume of fresh water is discharged into the Patuxent River.
Facility 11	1252.86	0	0	0	0	The TH Wharton Generating Station discharged fresh surface water in 2016 through permitted outfalls. All discharges were within permit limits. Fresh water is discharge to Greens Bayou.
Facility 12	364.36	7.81	0	0	0	The Cottonwood Generating Station discharged fresh surface water in 2016 through permitted outfalls. All discharges were within permit limits. Water is discharge back to the Sabine River, the same water body as the withdrawal.
Facility 13	0	15.77	0	0	0	The Doga Generating Station discharged fresh water to the municipal water treatment plant.

### W5.3

**Water consumption: for the reporting year, please provide water consumption data for all facilities reported in W3.2a**

Facility reference number	Consumption (megaliters/year)	How does this compare to the last reporting year?	Please explain
Facility 1	18511.61	Much lower	The Limestone Generating Station consumption decreased 28% in 2016. Freshwater is pumped from the Lake Limestone to supply water to cooling towers. The amount of water consumed is related to the withdrawal decrease of 28%. The decrease water withdrawal is due to increased condenser efficiency on the generating units.
Facility 2	29323.51	Much lower	The WA Parish Generating Station consumption decreased 40%. Freshwater is pumped from the Brazos River to a cooling lake. The amount of water pumped to the lake varies from year to year and can increase or decrease depending on rainfall and station operations.
Facility 3	21508.13	Much lower	The South Texas Project consumption decreased 60%. Brackish water is pumped from the Colorado River to a cooling lake. The amount of water pumped to the lake varies from year to year and can increase or decrease depending on rainfall.
Facility 4	5031.82	Lower	The Cheswick Generating Station consumption decreased 8%. The station uses freshwater from the Allegheny River for once through cooling. The decrease in consumption is related to the reduction of 14% in service hours.
Facility 5	12087.18	Higher	The Big Cajun II Generating Station consumption increased 11%. Freshwater is pumped from the Mississippi River for once through cooling or make-up to Unit 3 cooling tower. The increase in consumption is due to an increase in operation of the cooling tower.
Facility 6	772.80	Much higher	The Will County Generating Station consumption increased in 2016. Freshwater is pumped from the Des Plains River for once through cooling. This is the first year that an evaporation factor was applied to the once through cooling.
Facility 7	3342.96	Much higher	The Joliet Generating Station consumption increased in 2016. Freshwater is pumped from the Des Plains River for once through cooling. This is the first year that an evaporation factor was applied to the once through cooling.
Facility 8	19084.49	Much lower	The Powerton Generating Station consumption decreased 35% in 2016. Freshwater is pumped from the Illinois River to supply a cooling lake. The amount of water consumed is related to the withdrawal decrease of 33%. The station did not discharge water in 2016.
Facility 9	155.17	Much lower	The Dickerson Generating Station consumption decreased 51%. Freshwater is pumped from the Potomac River. The consumption is calculated using an evaporation factor for water temperature when it is returned to the river.
Facility 10	6598.91	Higher	The Chalk Point Generating Station consumption increased 12%. Brackish water is pumped from the Patuxent River. The consumption is calculated using an evaporation factor for water temperature when it is returned to the river.
Facility 11	359.99	Much lower	The TH Wharton Generating Station consumption decreased 48%. Freshwater is pumped from groundwater wells to a cooling tower. The amount of water consumed is based on evaporation from the

Facility reference number	Consumption (megaliters/year)	How does this compare to the last reporting year?	Please explain
			cooling tower.
Facility 12	4429.96	Much lower	The Cottonwood Generating Station consumption decreased 27%. Freshwater is pumped from the Sabine River to a cooling tower. This Station was flooded in 2016 and did not operate for 5 months for reconditioning the station; this was responsible for the reduction in consumption.
Facility 13	94.19	Much lower	The Doga Generating Station consumption decreased 19%. The station receives freshwater from the municipal water supply system. The water is used for steam makeup. The decreased in consumption is related to the improvements in the reverse osmosis system.

#### W5.4

For all facilities reported in W3.2a what proportion of their water accounting data has been externally verified?

Water aspect	% verification	What standard and methodology was used?
Water withdrawals- total volumes	76-100	The review was conducted in accordance with the attestation standards established by the American Institute of Certified Public Accountants. Total water withdrawals-total volumes include total withdrawals. Municipal water utility is determined from invoices. Surface water and ground water is determined by company owned metering devices, pump operating characteristics with pump operating logs, water balance engineering estimates, rainfall data applied to surface areas with run-off coefficients.
Water withdrawals- volume by sources	76-100	The review was conducted in accordance with the attestation standards established by the American Institute of Certified Public Accountants. The review includes total withdrawals from surface water (lakes, rivers or oceans), ground water, rainwater and municipal water utilities. Municipal water utility is determined from invoices.
Water discharges- total volumes	76-100	The review was conducted in accordance with the attestation standards established by the American Institute of Certified Public Accountants. Total water discharge is the total of all water discharge reported by each facility in its monthly Discharge Monitoring Report (DMR) to maintain compliance with the National Pollution Discharge Elimination System permits and discharges to publicly owned treatment works determined by volumes indicated on water/sewer invoices.

Water aspect	% verification	What standard and methodology was used?
Water discharges- volume by destination	76-100	The review was conducted in accordance with the attestation standards established by the American Institute of Certified Public Accountants. Total water discharge is the total of all water discharge reported by each facility in its monthly Discharge Monitoring Report (DMR) to maintain compliance with the National Pollution Discharge Elimination System permits and discharges to publicly owned treatment works determined by volumes indicated on water/sewer invoices.
Water discharges- volume by treatment method	76-100	All discharges are regulated by state environmental agencies and are regulated by NPDES permits. Permits require water testing to meet EPA and/or Standard Methods. Water testing laboratories are required to be NELAC accredited.
Water discharge quality data- quality by standard effluent parameters	76-100	All discharges are regulated by state environmental agencies and are regulated by National Pollutant Discharge Elimination System. Permits require water testing to meet EPA and/or Standard Methods. Water testing laboratories are required to be NELAC accredited.
Water consumption- total volume	76-100	The review was conducted in accordance with the attestation standards established by the American Institute of Certified Public Accountants. The difference between total quantity of water withdrawn and total quantity of water discharged in cubic meters for the year ending December 31, 2015 at the Company's facilities under operational control.

#### Further Information

### Module: Response

### Page: W6. Governance and Strategy

#### W6.1

Who has the highest level of direct responsibility for water within your organization and how frequently are they briefed?

Highest level of direct responsibility for water issues	Frequency of briefings on water issues	Comment
---	--	---------

Highest level of direct responsibility for water issues	Frequency of briefings on water issues	Comment
Board of individuals/Sub-set of the Board or other committee appointed by the Board	Scheduled - twice per year	NRG water resources, compliance, regulatory issues are discussed with the board.

**W6.2**

**Is water management integrated into your business strategy?**

Yes

**W6.2a**

**Please choose the option(s) below that best explains how water has positively influenced your business strategy**

Influence of water on business strategy	Please explain
Alignment of public policy positions with water stewardship goals	NRG is committed to the long-term stewardship of water resources. In Texas NRG supported House Bill 4, which lays the foundation for meeting Texas' future water needs. The legislation supports stakeholders working together to ensure water stability. The outcome of this support resulted in the passage of the bill by voters in November 2013, creating a \$2 million state water fund. 20% of the associated projects are dedicated to water conservation and reuse. This policy aligns with NRG water stewardship to ensure adequate fresh water supply for all stakeholders. In California, all facilities have processes to conserve water, with a focus on fresh water. The generating stations have Drought Contingency plans to identify stakeholders and additional outreach. In 2016 NRG established a goal to reduce water withdrawal by 40% by 2030, using 2014 as a baseline.
Investment in staff/training	NRG employees are engaged in water stewardship and their knowledge of water use at the facilities through training on water management. Employees have identified and implemented projects in 2013, 2014, 2015 and 2016 that will save over 1.2 billion gallons of water annually.

Influence of water on business strategy	Please explain
Water resource considerations are factored into location planning for new operations	The NRG Engineering and Construction group that develops and plans new projects created a Sustainability Manual in 2014. The objective of the manual is to design and build sustainable projects that strike an appropriate balance among project economics, environmental impact and community benefits. Options that are considered for construction: 1) Technologies that reduce water consumption 2) Technologies that minimize effluent discharges 3) Incorporate dry or closed-cycle cooling systems 4) Reduce intake impacts 5) Reduce discharge impacts 6) Recycle on-site process water 7) Use reclaim or alternative water sources 8) Low-impact designs for landscaping and stormwater. NRG Engineering and Construction project development identified 674,074 million gallons per year of water reductions in location planning for new operations.
Tighter operational performance standards	Per NRG's Environmental Policy & Procedures Manual and its "Environment Over Production" policy, environmental compliance is always a priority at NRG. Operators are empowered to make decisions to maintain compliance, including shutting down a unit if necessary.
Water resource considerations are factored into new market exploration	NRG purchased SunEdison assets in 2016. Some of these renewable assets are located in a new market for NRG, where fresh water is scarce. For example, NRG Energy, Inc. and Hawaiian Electric Company reached power purchase agreements (PPAs) for Hawaiian Electric to buy electricity generated by two Oahu grid-scale solar facilities. The 14.7 megawatt (MW-AC) Lanikuhana Solar plant will provide electricity at 11.4 cents per kilowatt-hour (kWh) and the 45.9-MW Waipio Solar plant, which will be the state's largest, will provide electricity at 10.4 cents per kWh. The prices assume the estimated Hawaii State Tax Credit applicable to the projects. NRG and Hawaiian Electric are also continuing plans for execution of a PPA for the 49-MW Kawailoa Solar facility, also on Oahu. All three projects are targeted to come online in 2019. The three projects were originally proposed by SunEdison and were acquired by NRG at the end of November 2016 during SunEdison's bankruptcy proceedings. In February 2016, as a result of SunEdison missing contract milestones and SunEdison's financial condition, Hawaiian Electric terminated the original PPAs for the three projects.
Introduction of water management KPIs	NRG established water management KPIs for its Gulf Coast Region in 2012. NRG began the process of expanding these KPIs across the fleet in November 2013. NRG expanded the program in 2014 to create a Water Champion at every NRG generating station. The Water Champion reports and tracks water data for the station and assists in identifying water reduction/conservation projects. NRG continued to mature our water sustainability program in 2015. NRG has 4 operations sustainability champions that lead their regional efforts to implement, track and document water conservation efforts. NRG created a water visualization dashboard in 2016 using Spotfire. The water dashboard shows current water use at various levels of the company and models future water use.
Establishment of sustainability goals	NRG established a water withdrawal goal in 2016. The water withdrawal reduction goal is based on a 2014 baseline and seeks to reduce total water withdrawal by 40% by 2030.

**W6.2b**

**Please choose the option(s) below that best explains how water has negatively influenced your business strategy**

Influence of water on business strategy	Please explain
Increased capital expenditure	Regulations such as 316(b), Steam Effluent Guidelines and Coal Combustion Residual regulations will potentially increase cost. In August 2014, the EPA finalized the regulation regarding once through cooling from existing facilities to address impingement and entrainment concerns. Despite the current administration, NRG anticipates that more stringent requirements will be incorporated into some of its water discharge permits over the next several years and this may increase CAPEX. NRG is evaluating the regulation, working with state regulators and estimating the total cost of compliance.
Closure of operations	The proposed regulations mentioned above have the potential to add costs, change operations or potentially even result in closing down generating units. The design, timing and stringency of these regulations will affect the framework for the retrofit or retirement of existing fossil plants and deployment of new, cleaner technologies in the next decade.

**W6.2c**

Please choose the option that best explains why your organization does not integrate water management into its business strategy and discuss any future plans to do so

Primary reason	Please explain

**W6.3**

**Does your organization have a water policy that sets out clear goals and guidelines for action?**

Yes

**W6.3a**

Please select the content that best describes your water policy (tick all that apply)

Content	Please explain why this content is included
Company-wide Performance standards for direct operations Incorporated within group environmental, sustainability or EHS policy Other: Incorporated within group environmental, sustainability or EHS policy	<p>NRG is committed to operating its facilities to ensure its operations provide benefit to communities and minimize its impacts. Water availability and quality are material sustainability issues for NRG. Listed below is the response to the questions about NRG's water policy. • Publicly available - NRG's water policy is not publicly available. • Company-wide – NRG's water policy is for operations. NRG's power generating operations account for 99% of water withdrawn. • Select facilities only – NRG's water policy is for all NRG Operations. • Performance standards for direct operations – NRG's water policy sets performance standards for all direct operations. • Performance standards for supplier, procurement and contracting best practice – NRG's water policy does not set performance standards for suppliers, but does include water considerations in procurement and contracting best practices for development projects. • Commitment to customer education – NRG's water policy does not include a commitment to customer education. • Incorporated within group environmental, sustainability or EHS policy – NRG's water policy is incorporated with the environmental policy. • Acknowledges the human right to water, sanitation and hygiene – NRG's water policy does not acknowledge the human right to water, sanitation and hygiene. NRG's operations are in the United States and it is a federal requirement to provide safe drinking water and access to sanitary facilities for all employees.</p>

**W6.4**

How does your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) during the most recent reporting year compare to the previous reporting year?

Water CAPEX (+/- % change)	Water OPEX (+/- % change)	Motivation for these changes
343.93	-0.66	The water OPEX remained nearly constant. The water CAPEX was increased by 343.93% due to the completion of several large stormwater and wastewater projects in 2016 to address environmental regulations. Water CAPEX changes year to year based on compliance with new or modified regulations.

---

**Further Information****Page: W7. Compliance**

---

**W7.1**

**Was your organization subject to any penalties, fines and/or enforcement orders for breaches of abstraction licenses, discharge consents or other water and wastewater related regulations in the reporting year?**

Yes, significant

---

**W7.1a**

**Please describe the penalties, fines and/or enforcement orders for breaches of abstraction licenses, discharge consents or other water and wastewater related regulations and your plans for resolving them**

Facility name	Incident	Incident description	Frequency of occurrence in reporting year	Financial impact	Currency	Incident resolution
Chalk Point Generating Station	Enforcement order	On January 25, 2013, Food & Water Watch, the Patuxent Riverkeeper and the Potomac Riverkeeper sent GenOn Mid-Atlantic a letter alleging that the Chalk Point, Dickerson and Morgantown generating facilities were violating the terms of the NPDES permits by discharging nitrogen and phosphorous in excess of the limits in each permit. On June 11, 2013, the Maryland Attorney General on behalf of the MDE filed a	1	2000000.00	USD(\$)	In August 2016, the court approved a consent decree to settle the matter. The consent decree requires: (1) improving the wastewater treatment systems at the Chalk Point and Dickerson facilities which was completed in October 2016; (2) completing supplemental environmental projects worth \$1 million; and (3) paying a civil penalty of \$1 million. The Company has improved the wastewater treatment systems at the Chalk Point and Dickerson facilities and paid the

Facility name	Incident	Incident description	Frequency of occurrence in reporting year	Financial impact	Currency	Incident resolution
		complaint in the U.S. District Court for the District of Maryland.				civil penalty of \$1 million.
Dickerson Generating Station	Enforcement order	On January 25, 2013, Food & Water Watch, the Patuxent Riverkeeper and the Potomac Riverkeeper sent GenOn Mid-Atlantic a letter alleging that the Chalk Point, Dickerson and Morgantown generating facilities were violating the terms of the NPDES permits by discharging nitrogen and phosphorous in excess of the limits in each permit. On June 11, 2013, the Maryland Attorney General on behalf of the MDE filed a complaint in the U.S. District Court for the District of Maryland.	1	2000000.00	USD(\$)	In August 2016, the court approved a consent decree to settle the matter. The consent decree requires: (1) improving the wastewater treatment systems at the Chalk Point and Dickerson facilities which was completed in October 2016; (2) completing supplemental environmental projects worth \$1 million; and (3) paying a civil penalty of \$1 million. The Company has improved the wastewater treatment systems at the Chalk Point and Dickerson facilities and paid the civil penalty of \$1 million.

#### W7.1b

**What proportion of your total facilities/operations are associated with the incidents listed in W7.1a?**

1.6%

#### W7.1c

**Please indicate the total financial impacts of all incidents reported in W7.1a as a proportion of total operating expenditure (OPEX) for the reporting year. Please also provide a comparison of this proportion compared to the previous reporting year**

Impact as % of OPEX	Comparison to last year
.02	Higher

#### Further Information

**Page: W8. Targets and Initiatives**

#### W8.1

Do you have any company wide targets (quantitative) or goals (qualitative) related to water?

Yes, targets and goals

#### W8.1a

Please complete the following table with information on company wide quantitative targets (ongoing or reached completion during the reporting period) and an indication of progress made

Category of target	Motivation	Description of target	Quantitative unit of measurement	Base-line year	Target year	Proportion of target achieved, % value
Improvement in monitoring of water use	Cost savings	NRG has an initiative to automate water monitoring to make our water data transparent and accessible. The goal is to have a single software program for facilities fully implemented by 2020.	% increase in employee productivity	2013	2020	15%

Category of target	Motivation	Description of target	Quantitative unit of measurement	Base-line year	Target year	Proportion of target achieved, % value
Water pollution prevention	Risk mitigation	Water pollution prevention is an annual target; each facility has a goal of zero permit exceedances. NRG has 78 facilities with NPDES permits; the fleet goal for NPDES permit exceedances is 100% compliance.	Other: % Regulatory Permit Compliance	2015	2016	99.9%
Absolute reduction of water withdrawals	Water stewardship	NRG set a water goal in 2016 to reduce total water withdrawal 40% by 2030 from a 2014 baseline. In 2016, we reduced water withdrawal from the previous year by 23 percent (2.392 million cubic meters) through plant efficiencies, water management strategies and a net decrease in generation at coal plants due to market conditions. All NRG U.S. and international operating facilities have a written water management plan and established water management best practices.	Other: % Reduction in all water withdrawals	2014	2030	77%

**W8.1b**

**Please describe any company wide qualitative goals (ongoing or reached completion during the reporting period) and your progress in achieving these**

Goal	Motivation	Description of goal	Progress
Watershed remediation and habitat restoration, ecosystem preservation	Water stewardship	NRG voluntarily supports wetland restoration, shoreline erosion protection, water stewardship and habitat protection. To promote this, in 2017 NRG set a goal to grow 250,000 stems of cord grass at our EcoCenter, located in Baytown Texas. This goal was set based on anticipated need from the Deepwater Horizon funding, which did not occur in 2015 or 2016. The restoration from the Deepwater Horizon is expected to begin in 2017. NRG's goal for amount of cord grass grown is set annually and is based on donation requests from our wetland conservation partners. NRG has operations in the Texas Gulf Coast and the restoration	In 2014, NRG donated 132,350 plugs of smooth cordgrass which restored approximately 28 acres. In 2015, NRG donated 104,043 which restored 22 acres of intertidal wetlands. In 2016, NRG donated 185,625 plugs of smooth cordgrass which restored approximately 39 acres. No success criteria or independent verification is performed for these voluntary restoration efforts since the restorations are non-migratory and the habitats are dynamic. A standard measurement of 3 feet between plants is used to determine hectares restored. NRG's donations are critical to the restoration directives of the following third party

Goal	Motivation	Description of goal	Progress
		maintains a positive impact on the ecosystems. NRG's donations are critical to the restoration directives of the following third party conservation organizations: US Fish and Wildlife Service, Texas General Land Office Texas Parks & Wildlife Department, National Marine Fisheries Service, The Galveston Bay Foundation, Natural Resource Conservation Service, Audubon Texas, Ducks Unlimited, The Student Conservation Association, Galveston Bay Estuary Program.	conservation organizations: US Fish and Wildlife Service Texas General Land Office Texas Parks & Wildlife Department National Marine Fisheries Service The Galveston Bay Foundation Natural Resource Conservation Service Audubon Texas Ducks Unlimited The Student Conservation Association Galveston Bay Estuary Program.
Strengthen links with local community	Brand value protection	Board service and support of regional and local water interest groups.	NRG serves on the Board of 4 water groups and is a member of 11 water interest groups.
Educate customers to help them minimize product impacts	Shared value	Implement an electricity plan through our Green Mountain Energy brand that promotes saving water. This goal was set to provide electric customers a choice to reduce carbon emissions and conserve water.	For Texas customers, choosing renewable energy is an easy and important thing they can do to help protect the environment – and save water! Green Mountain is the only electricity provider in Texas working to help consumers conserve water by giving them an easy way to live a greener lifestyle. Choose 100% wind energy and get FREE water saving products – whether to conserve water indoors, or outdoors.

W8.1c

Please explain why you do not have any water-related targets or goals and discuss any plans to develop these in the future

**Further Information**

**Module: Linkages/Tradeoff**

**Page: W9. Managing trade-offs between water and other environmental issues**

**W9.1**

**Has your organization identified any linkages or trade-offs between water and other environmental issues in its value chain?**

Yes

**W9.1a**

**Please describe the linkages or trade-offs and the related management policy or action**

Environmental issues	Linkage or trade-off	Policy or action
<p>Once through cooling is a very energy efficient and cost effective method to cool the steam cycle for power generation. Dry-cooling systems use air instead of water to cool the steam exiting a turbine. Dry cooled systems use no water and can decrease total water consumption by an average of 90%. The trade-off to water savings is higher costs and lower efficiencies. Low efficiency requires more fuel to produce the same amount of electricity, which will increase air emissions.</p>	Trade-off	<p>The NRG Engineering and Construction Sustainability Manual (Policy) was created to establish the objective to design and build sustainable projects that strike an appropriate balance among project economics, environmental impact and community benefits. The policy is signed by all Engineering and Construction Vice Presidents. The manual provides guidance and list of options to consider for water consumption and discharge. The project checklist includes the review of water reducing technologies, reduction of intake and discharge impacts, recycling and reuse of water, and low-impact designs for landscaping and stormwater.</p>
<p>Electricity is necessary to operate water pumps and other components in the treatment of wastewater and drinking water. The traditional production of electricity requires water for cooling. Water for human needs can be in competition with water for generating power. Water for human needs requires power for pumping and treatment.</p>	Linkage	<p>NRG has a business unit named "Business Solutions". NRG recognizes that traditional power generation uses large amounts of water. Renewable power lessens the dependence on water from traditional power production and maintains the reliability of the water system. Business Solutions, making sustainable attainable is a big part of what we provide our business customers through a wide range of solutions in four main categories: renewables, services, distributed and thermal. From a sustainability perspective, these products and services give businesses greater reliability, cleaner power and other benefits they can't get from the grid.</p>

---

**Further Information**

**Module: Sign Off**

**Page: Sign Off**

---

**W10.1**

**Please provide the following information for the person that has signed off (approved) your CDP water response**

<b>Name</b>	<b>Job title</b>	<b>Corresponding job category</b>
Mauricio Gutierrez	President & CEO	Chief Executive Officer (CEO)

---

**W10.2**

**Please indicate that your organization agrees for CDP to transfer your publicly disclosed data regarding your response strategies to the CEO Water Mandate Water Action Hub.**

**Note: Only your responses to W1.4a (response to impacts) and W3.2c&d (response to risks) will be shared and then reviewed as a potential collective action project for inclusion on the WAH website.**

**By selecting Yes, you agree that CDP may also share the email address of your registered CDP user with the CEO Water Mandate. This will allow the Hub administrator to alert your company if its response data includes a project of potential interest to other parties using water resources in the geographies in which you operate. The Hub will publish the project with the associated contact details. Your company will be provided with a secure log-in allowing it to amend the project profile and contact details.**

Yes

---

**Further Information**

**CDP 2017 Water 2017 Information Request**