

W0.1

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

Owens Corning is a global leader in engineered materials for insulation, roofing, and composites. Our market-leading businesses deliver a broad spectrum of innovative and high-quality products and services. Our products range from glass fiber used to reinforce composite materials for transportation, building and construction, marine, infrastructure, wind-energy, and other high-performance markets, to insulation and roofing for residential, commercial, and industrial applications. Global in scope and human in scale, we use our deep expertise in materials, manufacturing, and building science to develop products and systems that save energy and improve comfort in commercial and residential buildings. Through our glass reinforcements business, the company makes thousands of products lighter, stronger, and more durable. Ultimately, Owens Corning people and products make the world a better place. Owens Corning was founded in 1938 in Toledo, Ohio, and we are still based there today. The company has been on the Fortune® 500 list for 63 consecutive years.

W0.2

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

	Start date	End date
Reporting year	January 1 2017	December 31 2017

W0.3

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

Belgium
Brazil
Canada
Chile
China
Czechia
France
India
Italy
Mexico
Netherlands
Republic of Korea
Russian Federation
Singapore
Spain
United Kingdom of Great Britain and Northern Ireland
United States of America

W0.4

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

USD

W0.5

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

Companies, entities or groups over which operational control is exercised

W0.6

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

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Leased real estate, including warehouses and small offices are not included. Note: All manufacturing locations, major research and development sites and corporate headquarters are included in reporting.	These are very small users of water. They use water for sanitary purposes for a small number of employees.

W1. Current state

W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Important	Important	Direct- Sufficient quantity & quality of fresh water necessary as many plants require water for process & cooling so we selected important rating. Our 2020 goal focuses on high users. We reduce water consumption & consider any potential contaminations from use/disposal of product. Quality water is critical in our process. In most cases, we maintain quality above specified minimums. Indirect- We conduct annual supplier assessment to determine water risks. Many of our suppliers are in the extraction industry which require water to remove minerals from the earth. Given the importance of water to our suppliers' processes we selected the use rating of important. Through our annual assessments, we track if our Tier 1 supplier base has environmental goals, including water. We have determined crude oil extraction as a hotspot for water use in our supply chain. We do not expect a change in future dependency for direct/indirect since supplier processes and ours will remain similar
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Important	Direct- Recycled water must meet standards for different processes. Using recycled water reduces fresh water consumption. The % of water recycled to water withdrawn is 5%, total water re-circulated is 1987%. Recirculated water is used in our cooling systems while reused water has a variety of uses including irrigation & in our processes, why we selected the important rating. Since the initiation of our water goal in 2002 we look for ways to increase water recycling & re-circulation. Indirect- It is difficult to track recycled water in our supply chain, however we influence our suppliers to set environmental goals and improve recycling standards to reduce fresh water use. Mining operations in particular have a large opportunity to use recycled water as process water to remove minerals from the earth, which is why we chose the use rating of important. We do not expect a change in future dependency for direct/indirect since supplier processes and ours will remain similar.

W1.2

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

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	100% of sites are monitored on a monthly basis for withdrawal data by total volume through a combination of municipal and Owens Corning meters in place.
Water withdrawals – volumes from water stressed areas	100%	100% of sites - including water stressed areas as identified during our risk assessment, are monitored on a monthly basis for withdrawal data by total volume through a combination of municipal and Owens Corning meters in place.
Water withdrawals – volumes by source	100%	100% of sites are monitored for withdrawal data on a monthly basis by sources: Municipal water- utility bills, Onsite wells- estimated and/or pump meters, Water purchased from commercial third party- invoices, Surface water bodies- pump meters, Storm water- pump meters and estimations based on the collection methods

	% of sites/facilities/operations	Please explain
Produced water associated with your metals & mining sector activities - total volumes	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes	<Not Applicable>	<Not Applicable>
Water withdrawals quality	26-50	Our well water withdrawals are monitored for water quality on an ongoing basis using a variety of measures including PH, TDS, BOD & COD. Samples are taken and tested both on site and by independent labs. The majority of our water withdrawal is sourced from municipal supplies which has historically not required ongoing quality monitoring by us, as the municipalities monitor water quality.
Water discharges – total volumes	100%	100% of sites are monitored on a monthly basis for discharge data by total volume through discharge meters, calculations and estimation.
Water discharges – volumes by destination	100%	100% of sites are monitored on a monthly basis for discharge data by destination Water discharges to a municipality (standalone facility) - through sewer bills and city meters where installed, Water discharges to a municipality (Multi-tenant building)- estimate of sanitary sewer discharge based on total sewer discharge for building and number of tenants in building, Water discharges to an offsite surface water body- an estimate of process water discharged based on site specific calculations.
Water discharges – volumes by treatment method	100%	100% of sites are monitored on a monthly basis for discharge data by treatment method based on estimations, invoices, and meters and methodology used for treatment
Water discharge quality – by standard effluent parameters	51-75	Where necessary, sites are monitored on a monthly basis for water discharge quality data – quality by standard effluent parameters (BOD, COD, TSS) through sampling and laboratory analysis. Discharge quality monitoring is irrelevant at our zero discharge facilities. Water discharge quality is reported using Resource Advisor - which tracks performance at the site level.
Water discharge quality – temperature	1-25	Where required our facilities monitor the temperature of discharge water on an ongoing basis through sampling. This is not a requirement at the majority of our facilities. Discharge temperature monitoring is irrelevant at our zero discharge facilities.
Water consumption – total volume	76-99	We recently began monitoring water consumption separately from water withdrawal by calculating water evaporated based on site specific process knowledge. This is measured on a monthly basis. Historically we used water intake as our water consumption value. We have invested in meters to gain a better understanding of our evaporation levels at our roofing and asphalt plants.
Water recycled/reused	26-50	While the majority of our sites recycle and/or re-use water our method for quantifying the amount recycled/reused is dependent on site specific calculations. These calculations have only been completed for some of our facilities - mainly our insulation facilities where reused and recycled water is more relevant to the processes. These calculations are completed on an annual basis using monthly monitoring data from meters and invoices.
The provision of fully-functioning, safely managed WASH services to all workers	100%	100% of sites providing fully-functioning WASH services to all workers measured on an ongoing basis. We discuss our commitment to WASH services annually in our sustainability report. As part of our formal EHS assessment process our assessors check the status of WASH services during their on site assessments using targeted questions and

	% of sites/facilities/operations	Please explain
		observations. Each site is targeted for an assessment every 3 years to verify ongoing measurement.

W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	11033.34	Higher	From 2016 to 2017, our absolute water withdrawal increased due to increased production, but our water use intensity decreased by 8%. We expect water withdrawals to increase in future years as production requiring water use increases.
Total discharges	5946.76	Higher	Compared to 2016, we experienced a slight increase of 2.5% in water discharge, primarily due to increased production. However, we achieved 6% reduction in water discharge intensity as compared to 2016. We expect water withdrawals to increase in future years as production requiring water use increases and as water use increases our water discharge does as well.
Total consumption	4491.26	Higher	Consumption is based on calculated evaporation data. The higher our production, the higher our consumption. Evaporated water is calculated based on knowledge of processes rather than discharge amounts - resulting in slightly different balance than discharge + consumption. We expect water withdrawals to increase in future years as production requiring water use increases. As water use increases so does our evaporation (consumption). As we increase the coverage of monitoring for water consumption we expect this number to increase as well.

W1.2d

(W1.2d) Provide the proportion of your total withdrawals sourced from water stressed areas.

	% withdrawn from stressed areas	Comparison with previous reporting year	Identification tool	Please explain
Row 1	2	About the same	WRI Aqueduct	In 2016 3% of our water use came from water stressed areas. In 2017 this decreased to 2%. In 2016 10 of our sites were in stressed areas, in 2017 it dropped to 8. Operations at a few plants require a significant quantity of water. Therefore, water related risks have the potential to cause substantial change in direct business operations. Depending on severity and the likelihood of water challenges derived from the watershed/basin, it might impact local business units as well as revenue or expenditure at global level. To determine the included facilities we identify all sites listed as having "high" or "extremely high" overall water risk from the Aqueduct Tool. We chose this tool since because of the wide variety of impacts measured, the global focus of the tool, and as we have been using it for several years, it allows us to compare results over time. We then cross reference that with our water use and production levels at each of those sites. To be considered significant the total amount of production from those sites within the basin must be above 3%. Once plants cross both the high risk and 3% production in the basin threshold they are considered to have the potential of substantive change on our business.

W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	470.61	Higher	Increased production increased our fresh water use. Since all of our production processes require some amount of water use, as we grow our business and increase production we expect this water source to increase as well. We will continue to focus on efficiency to decrease our water use intensity. Where possible we use rainwater as a way to reduce municipal water demand making this source a small, but relevant for our company. This source is particularly useful in replacing municipal water for irrigation, although that is not it's only use.
Brackish surface water/seawater	Not relevant	<Not Applicable>	<Not Applicable>	We do not use this source of water as it does not meet necessary quality for our production processes. This water source is not available at many of our sites due to their locations. We do not anticipate using this source of water in the future since it will still not meet our quality standards and will not be available at most of our sites.
Groundwater – renewable	Relevant	2978.82	About the same	We use renewable groundwater when available. Renewable groundwater is our second most used source of water, following municipal sources, so managing this source is important to reducing our overall water usage. Increased production increased our overall water use, but since only select sites use groundwater, use of this specific source did not change significantly. Since all of our production processes require some amount of water use, as we grow our business and increase production we expect this water source to increase as well. We will continue to focus on efficiency to decrease our water use intensity.
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	We do not use this source of water as it is not ideal based on community impact. We do not anticipate using this source of water in the future.
Produced water	Not relevant	<Not Applicable>	<Not Applicable>	We do not use this source of water as water is not produced during our production processes. We do not anticipate using this source of water in the future.
Third party sources	Relevant	7583.9	About the same	The majority of our water use is third party water - specifically municipal sources. Ensuring we properly manage our municipal water intake has the biggest impact on our total water usage. Increased production increased our overall water use, Since all of our production processes require some amount of water use, as we grow our business and increase production we expect this water source to increase as well. We will continue to focus on efficiency to decrease our water use intensity.

W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	1028.23	About the same	Due to increased production our water use and therefore water discharge increased. Fresh surface water discharge is only applicable at a few sites and has not changed significantly accordingly. We discharge to surface water destinations for about a 5th of our water discharge, making this destination relevant for our waste water management. As production increases in the future we expect this discharge destination to increase as well. However, we will continue to focus on water efficiency and recycling/reuse.
Brackish surface water/seawater	Not relevant	<Not Applicable>	<Not Applicable>	This type of water discharge is not available in most of our facilities and not the preferred discharge destination for any of our sites, it is therefore not relevant to our wastewater management activities. We do not anticipate using this destination in the future.
Groundwater	Not relevant	<Not Applicable>	<Not Applicable>	This type of water discharge is not available in most of our facilities and not the preferred discharge destination where it is available. Therefore it is not relevant to our wastewater management activities. We do not anticipate this changing in the future.
Third-party destinations	Relevant	4918.53	Higher	Due to increased production our water use and therefore water discharge increased. Third party destinations, specifically POTW is our most common discharge source and has gone up accordingly. Since the majority of our wastewater is discharged to 3rd party destinations it is critical we manage this destination as part of our management strategy. As production increases in the future we expect discharge to increase as well. However, we will continue to focus on water efficiency and recycling/reuse.

W1.2j

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

	% recycled and reused	Comparison with previous reporting year	Please explain
Row 1	2-10	Higher	Increasing the recycling and reuse of water is part of our strategy to increase our water use efficiency through decreasing the amount of required freshwater intake. In 2017 we increased the amount of reused water by 2% compared to 2016. At the site and corporate level we continuously look for new technologies and opportunities to increase our water reuse. Requirements at certain facilities demand that we meet a certain percentage of reuse. As a result we have and are working to install additional water treatment processes that allow us to reuse additional water. As water use increases, we continue to invest in water efficiency. As reuse requirements increase, we expect water reuse to increase as well.

W1.4

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

Yes, our suppliers

Yes, our customers or other value chain partners

W1.4a

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

Row 1

% of suppliers by number

1-25%

% of total procurement spend

76-100

Rationale for this coverage

Key criteria used to identify supplier risk includes a variety of factors including sustainability footprint. & willingness to adhere to our Supplier Code of Conduct. The top 87% of spend is analyzed for risk impact to prioritize engagement & active management. Suppliers are ranked using various criticalities & risk based questions, then weighted & scored on impact & risk, resulting in 4 classifications. We utilize these assessments to award suppliers for outstanding environmental performance during our annual supplier week celebration and no supplier can be nominated without answering the survey - thus an incentive to complete the survey and take steps to increase water management. The awards ceremony is held at our WHQ during our supplier summit, ensuring a large audience.

Impact of the engagement and measures of success

This group is also assessed annually using a 21 question survey that addresses performance in safety, environmental, productivity, labor and human rights policies and adherence to our supplier code of conduct. Including if they have water intake/discharge goals & if they report to CDP. The results from the 2017 survey were based on 328 responses: 71% reported having set goals for environmental aspects; 28% reported that they have goals for water use reduction; 1% submit reports to CDP Water; and 32% reported that they have goals for waste water discharge reduction. Questions in the survey are used in the segmentation tool and assist us in measuring a suppliers risk. Based on the level of risk, corrective actions are established to reduce the risk, which could include the supplier establishing missing goals. The results are used to ensure they are meeting our CoC requirements.

Comment

W1.4b

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

Type of engagement

Innovation & collaboration

Details of engagement

Educate suppliers about water stewardship and collaboration

% of suppliers by number

Less than 1%

% of total procurement spend

1-25

Rationale for the coverage of your engagement

We invited several of our larger suppliers to attend our sustainability summit. Part of this summit focused on water risk and opportunity, sustainability goals (including water related) and CDP water. In order to ensure a higher level of engagement we limited suppliers invited to those large suppliers that could have the greatest impact through collaboration.

Impact of the engagement and measures of success

We measure success by a reduction in risk. One way to measure risk is if our suppliers have and/or report on environmental goals. We track this information through our annual supplier survey. As a result of this engagement we have established ongoing relationships with these suppliers around sustainability topics- including water when relevant.

Comment

W1.4c

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

As part of our 2020 goals related to product sustainability, we committed to evaluate, and be transparent about, our core products' impacts throughout their life cycles. We have adopted the following two-part methodology to calculate and show the full cradle-to-grave environmental impacts of our core building products: • We conduct a life cycle assessment (LCA) according to the ISO 14040, 14044, and 14025 standards, followed by an external, third-party review and verification on products sold to our customers; • We develop an environmental product declaration (EPD) from the LCA, and implement continuous and measurable improvements related to those impacts. An EPD is an independently verified and registered document that communicates transparent information about a product's environmental impacts throughout its life cycle. Owens Corning® issued the first North American EPD for fiberglass insulation in November 2012, followed by the first North American extruded polystyrene (XPS) foam insulation EPD in November 2013. EPD's of all core building products were certified and issued by UL Environment by the end of 2015. EPD data is public and shared with our customers to show them the amount of water used in our products during the manufacturing phase. This allows our customers to make a more informed decision and measure the impact of our products in their value chain. Certain customers request specific information or targets related to the environmental impacts of the products we sell to them. In these instances we work with our customers to meet these transparency and impact targets.

W2. Business impacts

W2.1

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

No

W2.2

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

No

W3. Procedures

W3.3

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

Yes, water-related risks are assessed

W3.3a

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

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as a standalone issue

Frequency of assessment

Annually

How far into the future are risks considered?

6 to 10 years

Type of tools and methods used

Tools on the market

Enterprise Risk Management

International methodologies

Other

Tools and methods used

WRI Aqueduct

Environmental Impact Assessment

Life Cycle Assessment

Internal company methods

External consultants

Other, please specify (Annual plant level survey)

Comment

Supply chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed as a standalone issue

Frequency of assessment

Annually

How far into the future are risks considered?

6 to 10 years

Type of tools and methods used

Tools on the market

Other

Tools and methods used

WRI Aqueduct

Internal company methods

Comment

Given the huge number of suppliers we have, performing a risk analysis on each supplier is not feasible nor valuable. We perform a risk analysis on the suppliers that make up the top 87% of our spend using the WRI Aqueduct Tool, supplier surveys, and supplier segmentation tool . This allows us to effectively manage the process and results in an impactful manner.

Other stages of the value chain

Coverage

None

Risk assessment procedure

<Not Applicable>

Frequency of assessment

<Not Applicable>

How far into the future are risks considered?

<Not Applicable>

Type of tools and methods used

<Not Applicable>

Tools and methods used

<Not Applicable>

Comment

W3.3b

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

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	Owens Corning manufacturing processes, specifically our composites division, require water of a certain quantity and quality. If our quality and quantity parameters cannot easily be met in a given area, it can require significant investment so this is an essential part of our water risk assessments. Since 2012, when we partnered with World Resources Institute to test the improved WRI Aqueduct Risk Map Tool we have used it to evaluate the baseline water risk of all our facilities. We use the results of this tool to get an understanding of what the water risk is at each of our sites based on location. We combine that with our water use and production levels at each site to determine which sites pose a high level of risk to our company and their communities based on water risk. Out of all our facilities assessed 1 was found to have high levels of water stress risk that could substantially impact our business. Our Life cycle assessments identify the amount of water used during production, use, and end of life for our products. This knowledge helps us identify potential water risks in our supply chain and processes. Our annual plant level surveys collect local knowledge about water availability at the basin level.
Water quality at a basin/catchment level	Relevant, always included	Through our annual plant level surveys and the WRI Aqueduct Tool we assess water quality risk at the water basin level. Our assessment looks at current water risk as well as anticipated future risk for the building materials industry. When determining if a water risk has the potential to substantially impact our business we look at all plants in the basin. Our site level surveys gather local knowledge about sensitive species, regulatory risk, future rate changes, and any upcoming changes that are expected around water use from our 100+ facilities.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	Stakeholder engagement is necessary to stay abreast of current and future water risks- reputational risk and regulatory risk in particular. We proactively engage with local stakeholders during new builds, during our materiality assessments and on an as needed basis. The internal company knowledge gathered during these processes is used in our water risk assessments. Our materiality process, completed over several years, was benchmarked against the most recent generation of Global Reporting Initiative (GRI) guidelines – GRI-Standards, which emphasize stakeholders as the primary driver for materiality. Through this initiative, we aim to report the positive and negative impact of all our business operations on the economy, environment, and society. Our process consisted of four steps: Revisiting old materiality grid, redefining materiality and aspect identification, aspect prioritization, and DMA maturity assessment. In 2015 we gathered stakeholder feedback and conducted stakeholder interviews. Interviewed internal and external stakeholders to identify material aspects impacting our performance and that of our stakeholders. Internal stakeholders included vice presidents of various departments, top management, and employees. External stakeholders included customers, suppliers, investors, and NGOs. Identified material aspects, including water, were based on the feedback received through 54 interviews conducted between 2014 and 2015. Our sites are expected to engage directly with stakeholders at the basin and local level with organizations such as Cascade Wellhead Protection Program, local Chamber of Commerce's, and Wyandotte County and State of Kansas water pollution prevention programs.

	Relevance & inclusion	Please explain
Implications of water on your key commodities/raw materials	Relevant, always included	Owens Corning conducts detailed life cycle assessments for its building material product line (insulation, shingles), which also enables the derivation of the virtual content of water in products. Risk assessment results are overlapped with virtual water content to estimate the impact on water intensive products and associated increase or decrease in revenue. This internal company knowledge gained from the LCA's informs our risk assessment. We also request information from our suppliers on their environmental performance, including water goals and if they disclose water information to CDP. We utilize these assessments to award suppliers for outstanding environmental performance during our annual supplier week celebration and no supplier can be nominated without answering the survey.
Water-related regulatory frameworks	Relevant, always included	Regulatory requirements regarding water are tracked by Owens Corning's Corporate Law Department and Business Unit environmental experts and also handled at the plant level with Business Unit and Corporate Law Department oversight. Annually each plant is required to complete a site level survey, which includes questions about current and future water regulatory or rate changes. This information is combined with knowledge from our Corporate Law Department to provide a complete view- from high to local levels. This is the internal knowledge used for this aspect of our risk assessment. Environmental impact assessments are completed for all new builds and acquisitions. In alignment with our growth strategy we have had several acquisitions globally as well as new builds in the US. These assessments include local water regulations we need to follow in our operations.
Status of ecosystems and habitats	Relevant, always included	We conduct annual evaluations of all our facilities to determine proximity to sites listed as ecologically sensitive or of significant importance related to biodiversity using RAMSAR Convention on Wetlands, Natura 2000, and UN Biosphere Sites. The WRI Aqueduct Tool also gives us a baseline of our risk associated with protected areas and threatened amphibians at the river basin level. This data is reported internally to all at risk sites and externally to interested stakeholders. In 2015 we also began a partnership with Wildlife Habitat Council. In 2015 they completed habitat assessments on two of our sites. In 2016 they assessed one additional plant and we achieved Gold Level certification at our Ohio R&D facility. In 2017 we achieved Gold Level certification at our WHQ. Environmental impact assessments are completed for all new builds and acquisitions. In alignment with our growth strategy we have had several acquisitions globally as well as new builds in the US. These assessments include local ecosystems and habitats and the potential impact of operations on them.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	To improve health and hygiene of all employees, it is critical for Owens Corning to provide fully functioning WASH services at all our facilities. Where these services have been found to be lacking through our internal company knowledge (for example internal due diligence and safety assessment processes), they are installed at not only our facilities, but in some areas where these services are also lacking, such as near our plants in India and China, into the surrounding communities as well. In these areas we have built kitchens and washrooms to provide access to clean cooking and bathroom facilities.
Other contextual issues, please specify	Please select	

W3.3c

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

	Relevance & inclusion	Please explain
Customers	Relevant, always included	Owens Corning's risk assessment approach mainly focuses on direct operations and suppliers, where the majority of our water consumption occurs, however where relevant we include customers in our water risk assessments. Within our composites business, as we are an input material provider, Owens Corning has worked with several customers to assist them with life cycle assessments to determine their water use/risk. LCA's give customers an idea of potential hot spots of water use in their value chain. Through LCA's on our own products we are able to determine the water impacts from use and disposal of our products. Additionally, through our materiality study we interviewed and surveyed customers on a range of topics, including our environmental impacts/performance. Water was found to be a material aspect during this assessment.
Employees	Relevant, always included	We provide training to employees to improve water efficiency within the facilities. In facilities with high water risk additional training is provided. In 2015 several employees attended the Association of Energy Engineers Water Efficiency training to learn strategies for water conservation and network with other water efficiency professionals. Three employees also completed the requirements to be named Certified Water Efficiency Professionals through the Association of Energy Engineers. We also hold internal summits to share best practices and establish relationships between employees with responsibility for water at their sites. In 2015 we held one such summit in Kansas City, Kansas, U.S. with attendees from throughout North America. In 2016 we held an EHS summit in Orlando, FL that was attended by employees from throughout the world. Water use, best practices for reducing water use, progress on our 2020 water goal, and water risk were all covered during the summit. Water use, risk and goals, including CDP Water, were presented during our 2017 Sustainability Summit, available to all Owens Corning employees. Our employees at the corporate level and plant level are responsible for identifying and managing certain aspects of water risk. Environmental impact assessments - identifying potential water risk at new sites is done by our regulatory law employees at the corporate level. Local level leadership is responsible for identifying local water risks including regulatory and pricing changes as well as potential issues with local community members/organizations. Employees were also included in our materiality study, which surveyed them on the importance of environmental impacts/performance, including water, to Owens Corning.
Investors	Relevant, always included	We are reporting our water risks in Dow Jones Sustainability Index, GRI report, CDP submissions, on our sustainability website, and through other investor requests sent directly to us. Many of our investors use these reports and rankings as a tool to determine continued investment in Owens Corning. Through our materiality study we interviewed and surveyed investors on a range of topics, including our environmental impacts/performance - specifically asking them to rate the importance of a variety of topics to Owens Corning, including water.
Local communities	Relevant, always included	Through our plant leaders and site EHS leaders Owens Corning is committed to establishing relationships with stakeholders, including community members, NGOs and neighbors. Through these interactions we have developed site based processes to engage our local communities. The methods of engagement are determined on a site by site basis depending on what is most effective in a given community, but commonly include community meetings and attendance at local forums and NGO hosted events. To improve health and hygiene in areas where fully functioning WASH services are lacking they are installed at not only our facilities, but also into some of the surrounding communities as well. In recent years we have made the community improvements in the communities in which we operate in both India and China.
NGOs	Relevant, always included	Given the global nature of our business and the varying needs of the communities in which we operate, our engagement with NGOs is often local in nature. Through our partnership with United Way we perform local needs assessments and partner to meet the identified needs in a given community. Through our materiality assessment and our day to day business Owens Corning is committed to understanding topics raised by NGOs as well as partnering with these stakeholders where relevant. Through our 2015 materiality assessment we surveyed and interviewed several NGOs. In 2015 we also began a partnership with the Wildlife Habitat Council to better understand and mitigate our impacts on local habitats and ecosystems. In 2015 they completed habitat assessments on two of

	Relevance & inclusion	Please explain
		our sites. In 2016 they assessed one additional plant and we achieved Gold Level certification at our Ohio R&D facility. We partnered with WHC to provide our employees habitat and native species education at a global level.
Other water users at a basin/catchment level	Relevant, always included	Given that water is essential to our processes, it is in our best interest and our responsibility to ensure water systems are maintained in our areas of operation. Our water risk assessments are done at the basin level, taking into account water stress from other users in those basins. Through our involvement with initiatives such as the Kansas Water Office's 50 Year Water Vision Plan, which addresses water use throughout the state of Kansas, we interact with other major water users at the local level.
Regulators	Relevant, always included	All our facilities must comply with national, state and local regulations and permits regarding water withdrawals and wastewater discharges. Through meeting with and calls to regulators our plant leaders and site EHS leaders are committed to establishing relationships with regulators that keep us up to date on current and future regulations relating to water
River basin management authorities	Relevant, always included	We become aware of river basin management plans and their goals through interactions with our stakeholders (sometimes during our materiality assessments) and through local knowledge at the facility level. Examples of this include: Our French facilities that are involved in techno-economic analysis with relation to the European Water Framework Directive and our Kansas City, Kansas, U.S. facility which has been very active with the 50-Year Water Vision Plan proposed by the Kansas Water Office. Through these engagements our sites participate in speaking engagements, sharing of best practices, and coordinated effort within their communities. River basin management plans are targeted at specific areas with specific goals in mind. Therefore a more localized approach to establishing relevant partnerships with local organizations and stakeholders is effective. Local leadership often has the most knowledge of local needs and the best way to meet them.
Statutory special interest groups at a local level	Relevant, always included	We become aware of local special interest groups and their goals through interactions with our stakeholders (sometimes during our materiality assessments) and through local knowledge at the facility level. Examples of this include: Our French facilities that are involved in techno-economic analysis with relation to the European Water Framework Directive and our Kansas City, Kansas, U.S. facility which has been very active with the 50-Year Water Vision Plan proposed by the Kansas Water Office. Through these engagements our sites participate in speaking engagements, sharing of best practices, and coordinated effort within their communities. Given the local nature of these groups, a localized approach is most effective.
Suppliers	Relevant, always included	A supplier list is generated from a spend analysis and the suppliers on this list are subjected to a ranking process by each commodity leader who rates the supplier on various criticality and risk based questions. The suppliers are then weighted and scored on impact and risk resulting in 4 quadrant segmentation. This group of suppliers is also assessed annually using a 21 question survey that addresses performance in safety, environmental, productivity, innovation, labor and human rights policies and adherence to our supplier code of conduct. We utilize these assessments to award suppliers for outstanding environmental performance during our annual supplier week celebration and no supplier can be nominated without having provided answers to the survey. The results from the 2017 survey were based on 328 responses: 71 percent reported having set goals for environmental aspects; 28 percent reported that they have goals for water use reduction; 1 percent (or 4 companies) submit reports to CDP Water; and 32 percent reported that they have goals for waste water discharge reduction.

	Relevance & inclusion	Please explain
Water utilities at a local level	Relevant, always included	Our supplier risk assessment also includes local water utilities/suppliers that are critical to our operations. In addition to the supplier risk assessment we establish relationships at the local level with our utilities. These relationships are important to ensure our quality and quantity requirements can be met, that we maintain a positive relationship with them, and that we remain within our permit levels.
Other stakeholder, please specify	Please select	

W3.3d

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

Given the global nature of our business and our need for significant amounts of high quality water for our processes, particularly our composites business, we chose to use the WRI Water Risk Atlas Aqueduct Tool to conduct a detailed water risk assessment and stress mapping for direct operations and supply chain. Geographical water risk was measured based on local-level water risk indicators in addition to physical water availability. We have surveyed our sites and used the tool to screen our sites and top 87% of supplier spend suppliers for high baseline water supply stress, future projections of water supply stress changes (year 2025), frequency of drought, and upstream water quality in combination with our own knowledge of our facilities in high stress areas or where supply issues may arise. The top 87% of our supplier spend is analyzed for risk and impact. They were also asked to provide an annual self-assessment. In 2014, we updated our supplier segmentation process to deploy a more transparent and detailed assessment of suppliers that should be "actively managed". Given the large number of suppliers we have, this strategy allows us to focus our efforts where we can have the biggest impact. The supplier list as generated from the spend analysis is subjected to a ranking process by each commodity leader who rates the supplier various criticality and risk based questions. The suppliers are then weighted and scored on impact and risk resulting in 4 quadrant segmentation. In addition to the centralized approach using the aqueduct tool we also use site level surveys, LCAs, external consultants, environmental impact assessments and a variety of other methods to locally assess water risk on an as needed and ongoing basis.

W4. Risks and opportunities

W4.1

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

Yes, only within our direct operations

W4.1a

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

Operations at a few plants require a significant quantity of water. Therefore, water related risks have the potential to cause substantial change in direct business operations. Depending on severity and the likelihood of water challenges derived from the watershed/basin, it might impact local business units as well as revenue or expenditure at global level. To determine the included facilities we identify all sites listed as having "high" or "extremely high" overall water risk from the Aqueduct Tool. This takes quality, quantity, flooding, endangered species, seasonal variability and other impacts into consideration. We then cross reference that with our water use and production levels at each of those sites. To be considered significant the total amount of production from those sites within the basin must be above 3%. Once plants cross both the high risk and 3% production in the basin threshold they are considered to have the potential of substantive change on our business. We use our supplier segmentation process to identify those suppliers that are critical to our operations based on a variety of risk factors including availability of substitutions and level of spend. Based on the results of the segmentation process suppliers representing 87% of our spend go through additional water risk assessments including the Aqueduct Tool.

W4.1b

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

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	1	Less than 1%	

W4.1c

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

United States of America

River basin

Ca

Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

% company's total global revenue that could be affected

1-25

Comment

W4.2

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

Country/Region

United States of America

River basin

Ca

Type of risk

Physical

Primary risk driver

Declining water quality

Primary potential impact

Increased operating costs

Company-specific description

The largest water risk at our facility that meets our threshold of substantive impact is declining water quality. Owens Corning's processes require high quality water. At this time we are able to use intake water with our currently available processes to meet our quality standards, but should this change additional investment in water processing equipment will be required. This would increase our initial capital costs as well as ongoing maintenance costs and effort.

Timeframe

1 - 3 years

Magnitude of potential impact

Medium-low

Likelihood

Likely

Potential financial impact

1550000

Explanation of financial impact

Estimated cost of installing and maintaining additional water intake treatment processes so water meets the quality necessary for our processes, based on past water treatment projects. This would be a one time cost separate from ongoing process costs.

Primary response to risk

Adopt water efficiency, water re-use, recycling and conservation practices (Reuse/reuse/recycle water when possible)

Description of response

Our top priority has been to increase our water use efficiency through leak detection and repair, process improvements, water reuse and recycling. Increasing our water efficiency ensures that we are able to best use natural resources, reduce wear on our equipment and reduce operating costs. In sites where we need to treat water prior to use, it is in our best interest (financially and maintenance related) to minimize the amount of water that needs to be treated by minimizing the amount of water we use.

Cost of response

1550000

Explanation of cost of response

Estimated cost of installing additional water treatment processes to increase the amount of water reused and recycled so water meets the quality necessary for our processes, based on past water treatment projects. This would be a one time cost separate from ongoing process costs.

Country/Region

United States of America

River basin

Ca

Type of risk

Physical

Primary risk driver

Increased water scarcity

Primary potential impact

Increased operating costs

Company-specific description

A secondary water risk that has the potential to substantively impact our business is increased water scarcity. Our manufacturing processes require water. Declining water quantity could disrupt our water supply which would cause production delays, require us to find alternative suppliers or pay an increased price for our current supply. We currently do not have conflicts with our communities or local stakeholders in relation to water. However, if water scarcity becomes a larger issue where we do business, we would expect an increase in the likelihood of local conflicts over water availability.

Timeframe

4 - 6 years

Magnitude of potential impact

Medium-low

Likelihood

Likely

Potential financial impact

6000

Explanation of financial impact

Increased cost of trucking in water from a third party rather than the municipal supply or increased cost of municipal supply. Cost of response strategy is based on our knowledge of current water costs and estimated increase.

Primary response to risk

Adopt water efficiency, water re-use, recycling and conservation practices (Reuse/reuse/recycle water when possible)

Description of response

Our top priority has been to increase our water use efficiency through leak detection and repair, process improvements, water reuse and recycling. Increasing our water efficiency ensures that we are able to best use natural resources, reduce wear on our equipment and reduce operating costs. In sites where we need to treat water prior to use, it is in our best interest (financially and maintenance related) to minimize the amount of water that needs to be treated by minimizing the amount of water we use. We regularly monitor our intake water to stay abreast of any potential quantity issues. Our system is designed so that we can shift production to unaffected plants to avoid delays if an issue arises.

Cost of response

1550000

Explanation of cost of response

Estimated cost of installing additional water treatment processes to increase the amount of water reused and recycled so water meets the quality necessary for our processes, based on past water treatment projects. This would be a one time cost separate from ongoing process costs.

W4.2c

(W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	We evaluate water risk throughout our supply chain on an annual basis through our supplier survey and using the WRI Aqueduct Tool. Based on the results of the survey and these tools, while there are water risks identified (flooding, declining quality and quantity) at this time we do not anticipate substantive impacts associated with any water risks. The results of our 2017 analysis indicate that less than 2% of our segmented suppliers are located in areas with high water stress (3 or above from the tool). Through our risk analysis, supplier survey, and relationships with suppliers we are confident in the ability of our suppliers to properly manage any water risks should they arise. Both our supplier survey and Aqueduct tool analyses will be repeated for 2018 and 2019.

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

W4.3a

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

Type of opportunity

Efficiency

Primary water-related opportunity

Cost savings

Company-specific description & strategy to realize opportunity

Lower costs for plant operations and less dependency on local or regional water sources by recirculating and recycling water and investing in water efficiency programs and equipment. By increasing the recycling/recirculating ratio at plants Owens Corning has reduced its fresh water purchases resulting in financial benefits. Additionally, water efficiency programs including leak detection, meter installation, and water mapping have increased water efficiency at many of our plants. Our long term strategy is to use lessons learned from our US plants and expand water recycling to all plants possible. Decreased water use not only decreases our intake costs, but also decreases costs associated with treating water to meet our quality standards and discharging costs. We are seeing increased water recycling requirements outside of the US which will help us reduce water intake as we meet these requirements. In 2016 and 2017 we installed a rainwater reuse project and wastewater reuse project at one of our sites. These projects combined will be saving us over \$80,000 annually.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Medium

Potential financial impact

3900000

Explanation of financial impact

Using our 2010 water efficiency rate and 2017 production levels we estimate that we have saved over 12 million cubic meters of water since 2010. Using our estimated average cost of water this has saved us over \$9.2 million. In a 3 year period our estimated savings from water conservation efforts is approximately \$3.9 million from intake savings alone. Decreased water treatment and discharge costs would increase these savings.

W5. Facility-level water accounting

W5.1

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

Facility reference number

Facility 1

Facility name (optional)

Country/Region

United States of America

River basin

Ca

Latitude

33.9

Longitude

-118.2

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

37.6

Comparison of withdrawals with previous reporting year

Much lower

Total water discharges at this facility (megaliters/year)

33.7

Comparison of discharges with previous reporting year

Much lower

Total water consumption at this facility (megaliters/year)

3.9

Comparison of consumption with previous reporting year

Much lower

Please explain

For a portion of 2016 there was a water leak that resulted in increased water withdrawals for the year. This leak was corrected so our water use is much lower in 2017 compared to 2016. Water consumption and discharge are tied to withdrawals.

W5.1a

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

Facility reference number

Facility 1

Facility name

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

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced water

0

Third party sources

37.6

Comment

W5.1b

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

Facility reference number

Facility 1

Facility name

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

33.7

Comment

W5.1c

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

Facility reference number

Facility 1

Facility name

% recycled or reused

Not monitored

Comparison with previous reporting year

About the same

Please explain

Our recycled and reused water monitoring is based on site specific calculations. These calculations have not yet been developed for every facility. So while water is recycled/reused it is not yet monitored at 100% of our facilities.

W5.1d

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

Water withdrawals – total volumes

% verified

76-100

What standard and methodology was used?

ISAE 3000

Water withdrawals – volume by source

% verified

76-100

What standard and methodology was used?

ISAE 3000

Water withdrawals – quality

% verified

Not verified

What standard and methodology was used?

NA

Water discharges – total volumes

% verified

Not verified

What standard and methodology was used?

NA

Water discharges – volume by destination

% verified

Not verified

What standard and methodology was used?

NA

Water discharges – volume by treatment method

% verified

Not verified

What standard and methodology was used?

NA

Water discharge quality – quality by standard effluent parameters

% verified

Not verified

What standard and methodology was used?

NA

Water discharge quality – temperature

% verified

Not verified

What standard and methodology was used?

NA

Water consumption – total volume

% verified

76-100

What standard and methodology was used?

ISAE 3000

Water recycled/reused

% verified

Not verified

What standard and methodology was used?

NA

W6. Governance

W6.1

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

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

W6.1a

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

	Scope	Content	Please explain
Row 1	Company-wide	<p>Description of business impact on water</p> <p>Company water targets and goals</p> <p>Commitment to align with public policy initiatives, such as the SDGs</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to stakeholder awareness and education</p> <p>Commitment to water stewardship and/or collective action</p> <p>Recognition of environmental linkages, for example, due to climate change</p>	<p>Water is a valuable resource becoming increasingly scarce in many geographic locations. When water scarcity increases, cost of water also increases, impacting operating costs. Reduction of overall water usage therefore reduces our footprint and operating costs. In order to reduce water usage, we must understand the water balance of the entire company. Owens Corning's 2020 sustainability goals include a 35% intensity reduction in water consumption. Incorporated within group policies: Both our Environmental Health Safety and Product Stewardship Policy, Supplier CoC and Climate Change Statement share our commitment to water stewardship Publicly Available: These policies are available publicly on our website. As we have made public sustainability commitments, we felt making our formal policies publicly available would increase accountability and transparency. Our policies include commitments to stakeholder involvement. We have mapped our commitments to the SDGs most relevant to us.</p>

W6.2

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

Yes

W6.2a

(W6.2a) Identify the position(s) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Chief Executive Officer (CEO)	<p>The complete Board of Directors, including the CEO, monitors Owens Corning's progress against sustainability and our sustainability goals. We have a 2020 water goal of reducing water intensity by 35% from 2010 levels. This goal is stated and reported on publicly. Our CEO and board approved these goals and have overall responsibility for ensuring we meet these goals. Sustainability is embedded in the company from the products we make to the actions we drive within the communities we operate. The Audit Committee of the Board of Directors also has accountability for sustainability. The CEO is also the Chair of the board. The CEO also receives regular updates from the Chief Sustainability Officer on our sustainability progress, goals, and strategy.</p>
Director on board	<p>The complete Board of Directors monitors Owens Corning's progress against sustainability. Sustainability is embedded in the company from the products we make to the actions we drive within the communities we operate. The Audit Committee of the Board of Directors also has accountability for sustainability. We have a 2020 water goal of reducing water intensity by 35% from 2010 levels. This goal is stated and reported on publicly. Our CEO and board approved these goals and have overall responsibility for ensuring we meet these goals.</p>

W6.2b

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

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Overseeing acquisitions and divestiture Overseeing major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding risk management policies Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives	The complete Board of Directors monitors Owens Corning's progress against sustainability including water use. Sustainability is embedded in the company from the products we make to the actions we drive within the communities we operate. Water reduction is one of our 2020 sustainability goals. The board oversees our performance related to these goals, was part of the CSR strategy that set them, and approves annual financial incentive of high level employees - including those tied to sustainability goals. Major acquisitions, capital projects and innovation are all reviewed by the board. Impact on our CSR strategy is considered in each of these areas through our product stewardship review process. The audit committee is responsible for risk management policies - including those related to potential water risk, including regulation changes.

W6.3

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

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

Chief Sustainability Officer (CSO)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Annually

Please explain

In 2007 Owens Corning appointed Frank O'Brien-Bernini as the Chief Sustainability Officer (CSO). Mr. O'Brien-Bernini reports directly to the Chairman and CEO with accountability for the Company's compliance with environmental, safety, health, and sustainability matters - including water reduction, compliance with water related regulations and managing our water risk. Reporting directly to the CSO is a sustainability organization with over 40 employees who are accountable for product and supply sustainability, building science, operations sustainability and environmental, health and safety. This team works with the sites and business units on water reduction and compliance projects. The board is briefed on water related issues at minimum once a year, with additional reporting as needed. This brief includes progress on our 2020 water goal, major changes, and if there were to be any major issues, they would be covered here as well.

W6.5

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

Yes, trade associations

Yes, other

W6.5a

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

Our climate policy is stated on our sustainability website and is clearly in favor of reducing water use. Our policy work and engagement with trade groups is focused on these same goals - to facilitate the ease of consumers and industry professionals to

employ water efficiency practices in conjunction with Owens Corning or using Owens Corning's expertise and products. In addition, "engaging our impact through sustainability" is a company value. Our company values underpin our company operations, and all decisions are made through the lens of those corporate values, including sustainability. When engaging with policy makers, our Government Affairs team controls all aspects of our communications and ensures that these activities are completely aligned with our climate policy. If they are not, we reconsider the engagement with the possibility of ending it if an acceptable resolution cannot be met. We regularly review language and activities with both external affairs and sustainability and conduct legal reviews of all external communications including letters, testimony and activities with outside advocates or NGOs.

W7. Business strategy

W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	16-20	The results of our materiality study identified water as significant to both stakeholders and Owens Corning. Continuing to monitor, report, and responsibly manage our water usage is an important part of meeting company and stakeholder expectations. As a result, water use goals were included in our most recent set of 10 year sustainability goals. Water was also included in our first set of 10 year sustainability goals. Our business/financial objectives are to implement practices and technologies that reduce water use and provide financial performance that, at a minimum, provides a neutral return on the investment. This has worked well for us for 15 years, as is evident in our ambitious goal setting and reported attainment.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	16-20	Owens Corning is trying to achieve more efficient water consumption for direct operations. The results of our materiality study identified water as significant to both stakeholders and Owens Corning. Continuing to monitor, report, and responsibly manage our water usage is an important part of meeting company and stakeholder expectations. We have a long term strategy to drive down our consumption of water through employee engagement, focus, conservation, recycling/reuse, treatment, process innovation and product/product design. Our strategy is delivered by setting ambitious long term (e.g., 10 year) goals, achieving them and then setting new goals. We recently reported that we have met our second set of 10 year goals, reporting a 41% intensity reduction since 2010.
Financial planning	Yes, water-related issues are integrated	16-20	Water use, treatment, and discharge are ongoing costs associated with our manufacturing processes that will not be going away. In order to accurately plan for financial requirements we need to include water related costs. Our business/financial objectives are to implement practices and technologies that reduce water use and provide financial performance that, at a minimum, provides a neutral return on the investment. This has worked well for us for 15 years, as is evident in our ambitious goal setting and reported attainment.

W7.2

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

	Water-related CAPEX (+/- % change)	Anticipated forward trend for CAPEX (+/- % change)	Water-related OPEX (+/- % change)	Anticipated forward trend for OPEX (+/- % change)	Please explain
Row 1	-27	20	10.4	10	Our water related CAPEX varies year to year based on necessary replacements, upgrades, and acquisitions. Given the decrease from 2016-2017 we expect an increase from 2017-2018. Less work was done in 2017 so we would expect more to be needed in 2018. Our OPEX is dependent on production. Given our growth strategy and recent acquisitions, we would expect OPEX to grow from 2017-2018.

W7.3

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

	Use of climate-related scenario analysis	Comment
Row 1	Yes	

W7.3a

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

No

W7.4

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

Row 1

Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

Please explain

We are evaluating what benefit an internal price of water would have on our businesses as well as the feasibility of implementing one.

W8. Targets

W8.1

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

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Country level targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	The results of our materiality study identified water as significant to both stakeholders and Owens Corning. Continuing to monitor, report, and responsibly manage our water usage is an important part of meeting company and stakeholder expectations. Our 2020 goals were set based on this stakeholder feedback for the company as a whole. While we track and monitor water use at the site level, this data is rolled up to the corporate level to be tracked against our company wide corporate goals.

W8.1a

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

Target reference number

Target 1

Category of target

Product water intensity

Level

Company-wide

Primary motivation

Reduced environmental impact

Description of target

Reduce company wide water intensity (cubic meters of water per metric ton of production) by 35% by 2020 from 2010 levels. Since our production volumes can vary significantly year to year an intensity target allows us to separate production impacts from our water goal. We do not want to meet our water reduction goal by simply reducing production.

Quantitative metric

% reduction per unit of production

Baseline year

2010

Start year

2012

Target year

2020

% achieved

100

Please explain

In 2017 we reached our goal early, achieving a 41% reduction in water intensity compared to 2010 levels.

W8.1b

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

Providing access to safely managed Water, Sanitation and Hygiene (WASH) in local communities

Level

Country level

Motivation

Shared value

Description of goal

In India and China, where many rural families migrate to urban centers to find work, many migrant families and their children live in villages and communities surrounding our plants. The children trail their peers academically and face a variety of challenges including lack of basic sanitation and clean water. It is our goal to partner with local communities and organizations to ensure the communities in which we operate have sufficient access to sanitary water. As access to safe WASH services is a more country specific need, this goal is set at a country level - targeting India and China. Our measure of success for this goal is to see an increase in the number of communities with access to WASH services year over year. This is an ongoing goal that is re-evaluated annually - once a project is installed we need to ensure it is maintained and as our company grows, the communities in which we operate and their needs will grow as well. Through acquisitions we are expanding into new areas with new needs. Our company is committed to high standards at all our facilities, globally. This includes high quality WASH services for our employees and their communities even where this may not be the norm.

Baseline year

2012

Start year

2013

End year

2030

Progress

In India, the Owens Corning Foundation partnered with United Way Mumbai in 2013 to complete community needs assessments for our facilities in that country. Since that time, Owens Corning has been highly active in these communities in India, where our efforts are aligned with United Nations Sustainable Development Goal #3, Good Health and Wellbeing and Goal #6, Clean Water and Sanitation. In fact, our India operations are among the most active and engaged facilities in all of Owens Corning. The Owens Corning Foundation has worked with United Way Mumbai and the HOPE Foundation to provide basic health services, clean water facilities, and basic sanitation in villages and schools. In 2016, a total of 800 people in these communities in India benefited directly from our sanitation facilities, more than 2,000 gained access to clean water. In 2017, a total of 550 students in these communities gained access to basic sanitation facilities and to clean water. Four families received toilet facilities as work began providing residents with sanitation. The program also provided communication and education regarding appropriate toilet use and positive hygiene practices for those families. Our threshold for success is to continuously increase WASH access in our communities based on local needs. This met our threshold for 2017 of increasing the number of communities with access to WASH water, but as this is an ongoing goal, it is not yet complete.

W9. Linkages and trade-offs

W9.1

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

Yes

W9.1a

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

Tradeoff

Type of linkage/tradeoff

Increased energy use

Description of linkage/tradeoff

Enhancement of water treatment initiatives (to reuse water reducing our consumption and to get water to the quality level needed for our production processes) within the organization has resulted in an increase in electricity consumption for some facilities which increases scope 2 emissions. In 2017 our scope 2 emissions were 1,024,570MT - less than half our total emissions. The portion of those emissions associated with increased wastewater treatment is small. We are parallel investing in energy efficiency measures to optimize the impact of trade off. We are also increasing rainwater utilization for cooling purpose which requires minimal treatment. We have not seen any significant changes in this tradeoff and do not expect to see one in future years.

Policy or action

Part of our EHS & Product Stewardship policy requires that all new products and significant process changes go through the product review process that identifies sustainability gains and losses (including water and GHG emissions). This process allows people to take these trade-offs into account when making decisions. Our sustainability reporting metrics allow users the opportunity to model the impact changes will have on water and emissions performance to our goals and determine if it should be implemented or not.

Linkage or tradeoff

Tradeoff

Type of linkage/tradeoff

Increased wastewater treatment

Description of linkage/tradeoff

As we reduce our water intake through increasing the amount of water reused in our processes it requires us to increase the volume of wastewater treated and level treatment required at our sites. The water we are reusing is water that has already been used in our processes. After being used in our processes the water contains chemicals from our processes that must be removed in order for the water to be high enough quality to be reused. On-site wastewater treatment requires ongoing maintenance and costs in addition to up front construction and investment. The more water we recycle, the higher these costs and maintenance levels. We try to minimize the amount of chemical treatment required though using bio-based treatment methods and optimizing our processes. Costs associated with ongoing wastewater treatment make up a large portion of our overall water related costs. We have not seen any significant changes in this tradeoff and do not expect to see one in future years.

Policy or action

Part of our EHS & Product Stewardship policy requires that all new products and significant process changes go through the product review process that identifies sustainability gains and losses (including water). This process allows people to take these trade-offs into account when making decisions. At the corporate level we have engineers focused on making our wastewater treatment processes as efficient and effective as possible. They assist our sites whenever necessary with data, research, planning, and site visits to ensure the wastewater treatment processes will work with as little maintenance and cost as possible. Our sustainability reporting metrics allow users the opportunity to model the impact changes will have on water and emissions performance to our goals and determine if it should be implemented or not.

W10. Verification

W10.1

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

Yes

W10.1a

(W10.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module	Data verified	Verification standard	Please explain
W6. Governance	Owens Corning’s materiality processes and systems for stakeholder engagement. Tested mechanisms by calling and interviewing staff and contractors responsible for collecting and responding to stakeholder concerns. Material performance data collected at the corporate and site-levels to identify any material misstatements or process calculation errors. Conducted interviews of relevant managers and process owners at the company; and reviewed the Sustainability Report for material misstatements and its alignment to the requirements of the Global Reporting Initiative (GRI) Standards.	AA1000AS	SCS Global Services’ (SCS) responsibility was to carry out a moderate level of assurance on the report in adherence to AccountAbility’s Principles of Inclusivity, Materiality and Responsiveness. A Type 2 Assurance Engagement was performed to evaluate Owens Corning against the AA1000 Principles to a moderate level.
W3. Procedures	Data to measure and calculate water usage for high risk facilities, as described in the CDP water use framework.	AA1000AS	SCS Global Services evaluated to a limited/moderate level of assurance the reasonableness of the data that Owens Corning has prepared in order to measure and calculate their water usage for high risk facilities, as described in the CDP water use framework.

Disclosure module	Data verified	Verification standard	Please explain
W4. Risks and opportunities	Data to measure and calculate water usage for high risk facilities, as described in the CDP water use framework.	AA1000AS	Evaluate to a limited/moderate level of assurance the reasonableness of the data that Owens Corning has prepared in order to measure and calculate their water usage for high risk facilities, as described in the CDP water use framework.

W11. Sign off

W-FI

(W-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

W11.1

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

	Job title	Corresponding job category
Row 1	Mike Thaman, Chairman of the Board and Chief Executive Officer	Chief Executive Officer (CEO)

W11.2

(W11.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes