CDP 2015 Climate Change 2015 Information Request Owens Corning

Module: Introduction

Page: Introduction

CC0.1

Introduction

Please give a general description and introduction to your organization.

Owens Corning was founded in 1938. Since then, the Company has continued to grow as a market-leading innovator of glass fiber technology. A Fortune® 500 company for 60 consecutive years, the company is committed to driving sustainability by delivering solutions, transforming markets, and enhancing lives. Owens Corning has earned its reputation as a market-leading innovator of glass-fiber technology by consistently providing new solutions that deliver a strong combination of quality and value to its customers across the world. Owens Corning is a world leader in composite and building materials systems, delivering a broad range of high-quality products and services. Our products range from glass fiber used to reinforce composite materials for transportation, electronics, marine, infrastructure, wind-energy and other high-performance markets to insulation and roofing for residential, commercial and industrial applications.

In the fourth quarter of 2014, Owens Corning announced organizational changes to streamline the Company's management structure and reduce costs. As a result of this action, the Building Materials Group organizational structure was eliminated. The new management structure contains three reporting segments: Composites, which includes our Reinforcements and Downstream businesses, Insulation and Roofing. Our Composites, Insulation and Roofing reportable segments accounted for approximately 36%, 32% and 32% of our total reportable segment net sales, respectively, in 2014.

SUSTAINABILITY Owens Corning is committed to balancing economic growth with social progress and environmental stewardship as it delivers sustainable solutions to its building materials and composites customers around the world. Owens Corning is striving to be a net-positive company by reducing the environmental footprint from its operations while growing its handprint – or positive impacts the company causes or enables to happen. Owens Corning's ability to deliver on this commitment has earned the company membership on the Dow Jones Sustainability World Index and recognition as the Building Products Industry Group Leader by the RobecoSam 2014 Sustainability Yearbook.

SAFETY: Owens Corning's commitment to safety is unconditional. In its quest for an injury-free workplace, the company has a long history of improvement as evidenced by safety improvement in 10 of the past 12 years. Over this period, Owens Corning has reduced the number of injuries by more than 90 percent. The company had 88 percent fewer injuries than the average manufacturing company when measured against the rates published by the U.S. Department of Labor. The Company has been recognized by the National Safety Council with the 2014 Green Cross Medal Award.

Owens Corning reported sales of \$5.3 billion in 2014 and employs approximately 15,000 people in 26 countries on five continents. Additional information is available

CDP

at: www.owenscorning.com.

CC0.2

Reporting Year

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

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that	t will be disclosed
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Wed 01 Jan 2014 - Wed 31 Dec 2014

CC0.3

Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country					
Belgium					
Brazil					
Canada					

Select country

Chile
China
France
India
Italy
Japan
South Korea
Mexico
Netherlands
Russia
Singapore
Spain
United Kingdom
United States of America

CC0.4

Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

USD(\$)

CC0.6

Modules

As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sub-industries, companies in the oil and gas sub-industries, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco industry group should complete supplementary questions in addition to the main questionnaire. If you are in these sector groupings (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will not appear below but will automatically appear in the navigation bar when you save this page. If you want to query your classification, please email respond@cdp.net. If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see https://www.cdp.net/en-US/Programmes/Pages/More-questionnaires.aspx.

Further Information

Module: Management

Page: CC1. Governance

CC1.1

Where is the highest level of direct responsibility for climate change within your organization?

Board or individual/sub-set of the Board or other committee appointed by the Board

CC1.1a

Please identify the position of the individual or name of the committee with this responsibility

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. In 2007 Owens Corning appointed Frank O'Brien-Bernini as the Chief Sustainability Officer (CSO). Mr. O'Brien-Bernini reports directly to the CEO with accountability for the Corporation's compliance with environmental, safety, health, and sustainability matters. Reporting directly to the CSO within Owens Corning is a sustainability organization with approximately 35 employees including of the Vice President of Environmental Health and Safety and Operations Sustainability. These employees are accountable for product and supply sustainability, building science, corporate toxicology, product stewardship, operations sustainability and Environmental Health and Safety.

CC1.2

Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment			
All employees	Recognition (non- monetary)	Emissions reduction project	The Environmental Excellence award is designed to recognize sustained excellence in environmental stewardship and areas of regulatory or public interest. This award was granted to one team within Owens Corning in 2014 for their work optimizing our eco-touch platform resulting in energy savings and emissions reductions.			
All employees	Recognition (non- monetary)	Other: Environmental Outreach	The environmental outreach award is designed to recognize those that made a difference in the lives of employees, communities, and the performance of Owens Corning. This award was granted to one employee within Owens Corning in 2014 for her work with local and state environmental agencies and pollution prevention plan outreach.			
All employees	Monetary reward	Energy reduction project	Our Composites business has an annual contest designed to drive participation for the Plant Energy Teams each year with cash awards which managed by the Energy Efficiency Program Manager. This program evaluates, among other items: (1) site energy meetings with minutes generated, (2) low cost/no cost savings projects implemented, (3) kaizen events and assessments completed, (4) best practices shared across the network, (5) capital projects being implemented, (5) energy network meetings attended.			
Energy managers	Monetary reward	Energy reduction target	Monetary rewards for energy managers are based on progress to our 2020 energy reduction goals.			
Environment/Sustainability managers	Monetary reward	Emissions reduction target Energy reduction target Efficiency target Behaviour change related indicator	Monetary rewards for environmental and sustainability managers are based on progress to our 2020 energy reduction goals.			
Corporate executive team	Monetary reward	Emissions reduction target Energy reduction target Efficiency target	Monetary rewards for the corporate executive team are based on progress to our 2020 energy reduction goals.			

Please provide further details on the incentives provided for the management of climate change issues

Further Information

Page: CC2. Strategy

CC2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

CC2.1a

Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Annually	Board or individual/sub-set of the Board or committee appointed by the Board	All countries of operation	> 6 years	Risk assessments over a varied time frame of three, five & ten year projections. The annual risk assessments are reviewed annually to add or delete any impacts.

CC2.1b

Please describe how your risk and opportunity identification processes are applied at both company and asset level

The company manages risk at the corporation level & at the business unit (BU) level. The various types of risks are outlined as follows:

• Risks retained (risk exposure is accepted without further mitigation): raw material inflation, employment practices, political risks, trade credit & privacy & cyber liability

• Risks reduced/transferred (risk exposure is reduced or transferred to others or consequences are reduced): Property Damage, Product Liability, Cargo, General/Casualty Liability, Directors & Officers, Fiduciary, & Crime

• Risks avoided (risk exposure will be eliminated entirely, e.g., through ceasing a business): liquidity risk-refinanced debt

The company has a risk committee that considers significant risk. The business units create business specific risk registers which are used in their Strategic & Operational Planning processes. These risk registers are reviewed with the corporate risk team & are instrumental in creating the corporate level risk register.

The company and BUs use risk maps as a risk analysis tool. They also use correlation analysis, sensitivity analysis & stress testing. Risk are retained, reduced/transferred or avoided.

There are also efforts for identifying risks & opportunities with respect to climate change that are coordinated through the Sustainability organization by on-going work with each BU to identify & address opportunities & identify & reduce risk through:

1. Operations Sustainability

- 2. Product & Supply Chain Sustainability
- 3. Innovation & collaboration to deliver energy efficiency & durable material solutions at scale
- 4. Employee safety, health & engagement & community vitality

Outcomes have included reduction in company energy & GHG emissions footprint over time, implementing new technology to reduce GHG emissions, & advocacy for better energy codes & standards. We are very active in building science & developing solutions in the areas of building scaling & insulation that saves energy & reduces emissions.

CC2.1c

How do you prioritize the risks and opportunities identified?

The company has a risk committee that considers significant risk to the corporation. They have a process in which they:

1. Review the Owens Corning Risk Register substantiated by business and functional reviews. The risks are prioritized based on their placement on the register. The Y-axis is a measure of financial impact and the X-axis is a measure of probability of occurrence. A risk, for example, located toward the upper left of the risk map would be indicative of risk that is high in financial impact but low in probability. Additional prioritization is provided by color coding. Risks plotted in green indicates that level of exposure is acceptable, while yellow indicates mitigation plans are actively in place, and red indicates that improved risk mitigation is needed.

2. Align around key mitigation programs – Based on the Risk assessment register outputs, the risk committee identifies the various mitigation actions to be taken and a planned approach is taken towards implementing the same through businesses.

3. Review Risk Register with Executive Committee – All risk assessment results and outputs are reviewed by the executive committee and feedback received is incorporated in the action register and also reflected in the mitigation planning.

4. Meet yearly as a Risk Committee – The risk committee meets annually to review the existing risk aspects, add any new risks being identified from internal or external sources and update any risks which are no longer considered applicable the businesses. The risk committee also reviews the mitigation actions and outputs for the annual cycle.

5. Provide yearly update to Owens Corning Board of Directors

CC2.1d

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment
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CC2.2

Is climate change integrated into your business strategy?

Yes

CC2.2a

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

I. Owens Corning's business strategy has been influenced by climate change risks and opportunities that have been identified and managed by our risk organization as well as within our distinct business units. All risk assessment results and outputs are reviewed by the executive committee (including the CEO). Subsequently feedback received is incorporated in the action register and also reflected in the mitigation planning. In addition, the strategy is influenced by our major stakeholders, which include NGO's, customers, suppliers, investors, as well as through our interactions with universities and business groups. The internal processes identifying our corporate footprint and handprint also influence the decisions made by our business leaders.

II. There are several aspects of climate change that have influenced our business strategy. The climate change influence on increasing frequency and severity of storms, as well as changing weather patterns over regions of the world has driven changes to our strategy that have improved our company's products. In recent years we have made it a priority to develop roofing products with higher wind resistance and greater durability.

o Opportunities to partner with companies who drive programs which are forward thinking on topics such as progressing building standards and safety has influenced our business strategy. One major strategy of the company is to participate at the board level at the Residential Energy Services Network (RESNET), BPI, NAHB, BICAP, EBA, NSC, and the Campbell Institute. We are members of BICEP and on the advisory board of SASB.

o Another climate change driver to Owens Corning's business strategy is regulatory change. We are supporting regulation to eliminate GHG emissions. Other factors of climate change that influence our strategy include water shortages and the need to reduce greenhouse gas emissions and energy use. We have committed to perform Life Cycle Analyses (LCA) to continue to develop our footprint and handprint.

III. There are several short term strategies that have developed from climate change. Owens Corning has instituted in the last two years a conversion process of the blowing agent used in manufacturing our foam products. This new blowing agent will dramatically reduce greenhouse gas emissions. We published a residential builders' guide on how to build a net zero home for all climate zones. Other initiatives have included instituting a sustainability mapping tool that influences and measures the positive sustainability aspects of 100% of our R&D projects, new products, and new processes, an increase in the amount of renewable energy sources, and reduced energy usage in automobiles, energy, and buildings. Due to the financial impact of increasing energy costs and the political reality of potential carbon taxes, we are striving to reduce energy use and emissions throughout Owens Corning.

IV. There are also several aspects to our long term strategy that have changed due to the reality of climate change.

o Power Supply Sourcing – Owens Corning has moved from a mindset of 1 to 3 years of power supply to 15 to 20 years to access renewable energy in a cost effective manner.

o Impending water shortages in water stressed areas now is part of our evaluation of suppliers and customers.

o R&D Portfolio – Our R&D portfolio is guided by our sustainability mapping tool and our focus to ultimately be a net positive company. Innovation and sustainability are key drivers of our long term strategy. Owens Corning's products make the world a better place.

V. Owens Corning sees a strategic advantage over its competitors through its integration of climate change in its long term strategy in several important ways. Our focus on sustainability has led to many new product and process developments, for example, the formaldehyde free EcoTouch insulation and Sustaina veil products, the sustainability R&D mapping tool, reduced energy intensity and related GHG emissions and increasing use of renewable energy. Owens Corning EcoTouch™ insulation is a new class of high-performance residential and light commercial insulation made with a certified minimum of 30 percent post-consumer recycled content and 50 percent total recycled content, and a formaldehyde-free formulation. This combines high performance with sustainable attributes. These product qualities give us a competitive advantage in the marketplace, particularly in the green building space. Another competitive advantage is our shingle recycling program, which lowers disposal costs for our customers and helps construction projects gain LEED credits.

VI. Several key business decisions made during 2014 were a direct result of climate change influence. In 2014, Owens Corning carriers fueled by natural gas moved product 13 million miles, 30% more than the previous year. The reality of increased storm activity due to climate change resulted in Owens Corning's development and launch of shingles with greater wind and hail resistance. The importance of reducing GHG also led Owens Corning to perform a preliminary analysis on supply chain GHG including raw materials. We increased our number of board positions in major energy efficiency organizations. Finally the closure of some of our composites plants were influenced by energy and GHG concerns.

CC2.2b

Please explain why climate change is not integrated into your business strategy

CC2.2c

Does your company use an internal price of carbon?

Yes

CC2.2d

Please provide details and examples of how your company uses an internal price of carbon

We consider scope 1, 2 and 3 emissions, and have both internal and externally published reduction goals. We use our aligned and committed reduction goals to drive strategy and action, not an actual carbon charge such as an internal carbon tax. For use in internal decision making and risk analysis, we place an economic value on carbon emissions to help frame the challenges and opportunities in monetary, more broadly understood terms than simply tons of emissions. This includes considering the impact on our operations and our supply chain. Quantifying these added costs, in the event that a price is put on carbon in regions around the world where a current price or trading scheme is not in place, provides additional insight into our business decisions. We bracket this analysis, on the low end at \$10/metric ton and a high of \$60/metric ton.

CC2.3

Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

Direct engagement with policy makers Trade associations Funding research organizations

CC2.3a

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution	
Other: Ohio State Renewable	Oppose	Letters and meetings with state representatives, other manufacturers and energy service companies opposing	Although we and others opposed, the legislation was passed and the renewable energy standards requirements were frozen in Ohio.	

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Energy Standards to be frozen, SB310		SB310. SB310 was legislation to put statewide efficiency efforts on hold. Owens Corning believed it would effectively repeal incentives for energy reduction and efficiency. It would also negatively impact programs local utilities run to trim energy consumption, and help stabilize the state's electricity grid and prices.	We support policies that promote energy efficiency through efficiency and reduction incentives and utility programs that trim usage while stabilizing the grid and pricing. [see attachment CDP2.3a_SenateBill310Letter.pdf]

CC2.3b

Are you on the Board of any trade associations or provide funding beyond membership?

Yes

CC2.3c

Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
NAIMA	Consistent	NAIMA works closely with worldwide manufacturers of fiber glass, rock wool and slag wool insulation products and other allied organizations to advance sustainable development through activities that promote the following as they relate to insulation: 1.Pollution reduction through increased insulation 2. Energy efficiency awareness 3. Natural resource preservation NAIMA, along with other international organizations, unite to inform government agencies, environmental building organizations, manufacturing companies, consumers and academia around the globe about the role insulation plays in energy efficient construction, the reduction of greenhouse gas emissions and mitigating climate change.	We are active on the board and committees to further these goals.
RESNET	Consistent	The Residential Energy Services Network (RESNET) was founded in 1995 as an independent, non- profit organization committed to helping homeowners reduce the cost of their utility bills by making their homes more energy efficient. RESNET is a supporter of expanded use of renewable energy to	We are active on the board and committees to further these goals.

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
		improve energy efficiency and reduce greenhouse gas emissions.	
BICEP	Consistent	BICEP is an advocacy coalition of businesses committed to working with policy makers to pass meaningful energy and climate change legislation that will enable a rapid transition to a low-carbon, 21st century economy that will create new jobs and stimulate economic growth while stabilizing our planet's fragile climate. BICEP offers a new arena for business involvement in advancing climate and energy policies to counter the far reaching risks and challenges posed by global climate change.	We are a member and active supporter.
ASHRAE	Consistent	ASHRAE, founded in 1894, is a global society advancing human well-being through sustainable technology for the built environment. The Society and its members focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability within the industry. ASHRAE/AIRAH JOINT RESOLUTION ON CLIMATE CHANGE acknowledges the reality of climate change and its human causes	Previously members of the board and currently an active supporter.
AWEA	Consistent	The American Wind Energy Association (AWEA) is the national trade association for the U.S. wind industry – the country's fastest growing energy industry. With thousands of wind industry members and wind policy advocates, AWEA promotes wind energy as a clean source of electricity for American consumers.	We are a member and active supporter

CC2.3d

Do you publicly disclose a list of all the research organizations that you fund?

No

CC2.3e

Do you fund any research organizations to produce or disseminate public work on climate change?

Yes

CC2.3f

Please describe the work and how it aligns with your own strategy on climate change

Through our trade associations, such as NAIMA, we have funded research on the effects of reduced energy use and how insulation plays a role in reducing emissions, GHG and others, and the resultant benefits to the environment and human health. We funded an ongoing study with the School of Public Health, Harvard on this topic. Our climate change strategy focuses on both reducing our emissions and increasing our handprint (the positive impact we have). Increased use of our insulation, and other products, reduces energy use and therefore emissions. Our work with research organizations helps us to quantify our handprint.

CC2.3g

Please provide details of the other engagement activities that you undertake

CC2.3h

What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Our climate policy is stated on our sustainability website and is clearly in favor of reducing energy use and greenhouse gas emissions. 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 energy efficiency and renewable energy 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. The Owens Corning company values underpin our company operations, and all decisions are made through the lens of our corporate values, including sustainability. From the standpoint of 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.

CC2.3i

Please explain why you do not engage with policy makers

CC2.4

Would your organization's board of directors support an international agreement between governments on climate change, which seeks to limit global temperature rise to under two degree Celsius from pre-industrial levels in line with IPCC scenarios such as RCP2.6?

Yes

CC2.4a

Please describe your board's position on what an effective agreement would mean for your organization and activities that you are undertaking to help deliver this agreement at the 2015 United Nations Climate Change Conference in Paris (COP 21)

Yes. Owens Corning is a member and signatory to the Business for Innovative Climate and Energy Policy (BICEP) which urges US and International policy action on climate change. The RCP2.6 is aligned with this position. http://www.ceres.org/bicep

Further Information

Attachments

https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC2.Strategy/CDP2.3c_awea - what we do.pdf

https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared

Documents/Attachments/ClimateChange2015/CC2.Strategy/CDP2.3a_SenateBill310Letter.pdf

https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared

Documents/Attachments/ClimateChange2015/CC2.Strategy/CDP2.3c_20090428_ashraeairah.pdf

https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared

Documents/Attachments/ClimateChange2015/CC2.Strategy/CDP2.3h_OCStory_Handout.pdf

https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC2.Strategy/CDP2.3c_About BICEP — Ceres.pdf

https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC2.Strategy/CDP2.3c_NAIMA Global Issues Involvement.pdf

Page: CC3. Targets and Initiatives

Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?

Intensity target

CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
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CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
Int1	Scope 1+2+3	100%	20%	metric tonnes CO2e per metric tonne of product	2010	4682713	2020	Owens Corning has a 2020 goal to reduce its GHG intensity by 20%. We follow the World Resource Institute (WRI) GHG protocol to account Scope 1, 2 and 3 emissions. In 2015, we will be evaluating the process to update to the new Scope 2 guidelines, released by WRI. Based on interviews with internal and external stakeholders, and the influence of the WBCSD Vision 2050 and past goals, reduction of GHG is a material topic for Owens Corning. We measure our impact through our GHG intensity goals. Our biggest contributor to this intensity is the blowing agent we use in our foam production process. In 2014, we have already exceeded our targets to reduce 20% from base year. Through continued steady progress toward meeting our

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
								ambitious 2020 greenhouse gas goal, including an intensity reduction of 34 percent in greenhouse gas from our 2010 baseline. We have now achieved our 2020 goal and will soon announce even more ambitious targets.

CC3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	Decrease	20	No change	0	Owens Corning recognizes that greenhouse gas (GHG) emissions are the main cause of climate change and is committed to doing its part to reduce emissions within the company as well as through our suppliers and customers. Owens Corning has a 2020 goal to reduce its greenhouse gas intensity by 20 percent. We follow the World Resource Institute (WRI) GHG protocol to account Scope 1, 2 and 3 emissions. In 2014, we are reporting a 34 percent reduction in GHG intensity from our base year 2010. Going forward as a company we expect the majority of our reductions to be realized in Scope 1 and Scope 2 although we will continue to implement changes to our organization to reduce our Scope 3 emissions where appropriate. During 2014, SCS Greenhouse Gas Verification program has conducted a verification of Owens Corning's end of year 2014 emissions against the requirements of the Carbon Disclosure Project and the WRI/WBCSD GHG Protocol. The verification of Scope 3 emissions. The statement

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
					attests the SCS Global Services provides reasonable assurance.

CC3.1d

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
Int1	50%	100%	Owens Corning has a 2020 goal to reduce its greenhouse gas intensity by 20 percent. In 2014, we have registered a reduction of 34 percent from our base year exceeding our target by 14 percent five years early. This can be attributed to our diligent efforts around the reduction in our blowing agent emissions and beginning the journey of converting to a renewable energy portfolio. Owens Corning reported a 20 percent reduction in absolute Scope 1 emissions in the year 2014. The majority of Owens Corning's scope 1 emissions are attributable to the foam production process from blowing agent as well as fuel stationary combustion across the company. We reduced our absolute emissions from our foam blowing based operations by 31 percent from our base year by reducing the usage of high GWP foam blowing agent per product produced. Through continued steady progress toward meeting our ambitious 2020 greenhouse gas goal, including an intensity reduction of 34 percent in greenhouse gas from our 2010 baseline. We have now achieved our 2020 goal and will soon announce even more ambitious targets.

CC3.1e

Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

CC3.2

Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?

Yes

CC3.2a

Please provide details of how the use of your goods and/or services directly enable GHG emissions to be avoided by a third party

Owens Corning insulation products are designed to save energy in buildings. Information below is an estimate of energy savings in North America based on a typical residential building insulated with our products sold in 2014.

We are limiting our response to North America where the majority of our insulation sales are currently concentrated. We do have additional sales of fiberglass and extruded polystyrene foam insulation in the Asia Pacific region that are not included in this analysis due to a lack of specific information required for the analysis.

Methodology:

Using the methodology described below, our building insulation products sold in North America during the calendar year 2014 were estimated to reduce the GHG emissions for home owners by approximately 9.44 million metric tons CO2-e a year and 566 million metric tons over the building's lifetime. During the calendar years 2010-2014, we estimate that the GHG emissions reductions for the annual sales each year were nearly 38 million metric tons CO2-e. The total weight of fiberglass insulation and extruded polystyrene foam insulation products was used in the calculations. The avoided emissions were determined based on installing insulation using fiberglass and rigid foam board versus not insulating an average (2400 square ft.) 2-story home in St. Louis, Missouri, USA. The 2400 square foot used for an average size home in North America is based on past data used by architects, builders and United States Government data. St. Louis, Missouri is representative of an average home in terms of heating and cooling days for the building zone requirements of North America.

It was assumed that the home was insulated with R11, R13, and R38 fiberglass insulation and some homes had R5 rigid foam board. The insulation specifications for each home were set to match the IECC (International Energy Conservation Code). A U.S. Department of Energy (DOE) approved building energy consumption and cost software, REM/DesignTM was used to determine the amount of natural gas and electricity saved. It was assumed that the life of a home would be 60 years, a number being used by experts in proposed international sustainable building standard setting activities. All of our conversions rates were pulled from official standards or government sources. For example, the conversion factor for pounds of CO2 per Million Btu of Natural Gas was pulled from the US Energy Information Administration website (http://www.eia.gov/tools/faqs/faq.cfm?id=74&t=11).

On average, electricity sources emit 1.341 pounds (lbs) of carbon dioxide (CO2) per kWh from the U.S. Energy Information Administration (U.S. Department of Energy and U.S. Environmental Protection Agency), Carbon Dioxide Emissions from the Generation of Electric Power in the United States, 2000.

https://www.americanforests.org/assumptions-and-sources/#electricity

Sources: Owens Corning, Toledo, Ohio REM/DesignTM V12 for Energy Analysis - Architectural Energy Corporation, Boulder, Colorado Carbon Factors for Power Grid, Appendices B, and C: The United States Department of Energy (DOE), Washington, D.C. ASTM International Technical Committee E60, West Conshohocken, Pennsylvania

Non-Residential Product Applications:

Our reinforcement fiberglass materials are used in various product applications by other manufacturers to reduce weight, add strength, and durability to their products. Depending upon the particular application, such as in the transportation sector and in wind turbine blades, our reinforcement products provide energy savings and therefore corresponding greenhouse emissions avoidance for their customers.

Owens Corning also sells fiberglass and foam insulation in the commercial and industrial sectors, such as duct board and duct media. These products provide energy savings and their associated greenhouse gas emission avoidance.

CC3.3

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

Yes

CC3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	24	0
To be implemented*	52	15928
Implementation commenced*	8	4417

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Implemented*	93	22415
Not to be implemented	41	0

CC3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Processes	Installed a new and more efficient air compressor	531	Scope 1 Scope 2	Voluntary	91240	250000	1-3 years	6-10 years	voluntary project in Composites business for natural gas and electricity
Energy efficiency: Processes	Installed a more efficient heat exchanger on the furnace waste heat recovery system	689	Scope 2		60480	78239	1-3 years	3-5 years	Voluntary project in Composites business for electricity
Energy efficiency: Processes	Installed a variable frequency drive and eliminated throttling	556	Scope 2	Voluntary	113907	46603	<1 year	1-2 years	Voluntary project in Composites business for electricity
Energy	Installed a new waste heat	694	Scope	Voluntary	212000	97245	<1 year	6-10 years	Voluntary project in

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
efficiency: Processes	recovery system		1						Composites business for natural gas
Energy efficiency: Processes	Reconfigured the chilled water system for higher efficiency eliminating several pumps	931	Scope 2	Voluntary	312130	529701	1-3 years	6-10 years	Voluntary project in Composites business for electricity
Energy efficiency: Processes	Installed more efficient burners in ovens	560	Scope 1	Voluntary	168480	340600	1-3 years	6-10 years	Voluntary project in Composites business for natural gas
Energy efficiency: Processes	Installed an efficient chiller size matched to the winter season	903	Scope 2	Voluntary	145100	467805	1-3 years	6-10 years	Voluntary project in Composites business for electricity
Energy efficiency: Processes	Installed a new and more efficient heater	618	Scope 2	Voluntary	58000	908000	16-20 years	16-20 years	Voluntary project in Insulation business for electricity
Energy efficiency: Building services	Installed energy efficient lighting/LEDs	861	Scope 2	Voluntary	75000	118078	1-3 years	6-10 years	Voluntary project in Insulation business for electricity
Energy efficiency: Processes	Installed VFD on a large forming fan	4388	Scope 2	Voluntary	950000	358400	1-3 years	6-10 years	Voluntary project in Insulation business for electricity
Energy efficiency: Processes	Modified furnace design for improved energy efficiency improvement	1586	Scope 2	Voluntary	0	57000		6-10 years	Voluntary project in Insulation business for electricity
Energy efficiency: Processes	Improved efficiency of transport fan	444	Scope 2	Voluntary	357100	225000	1-3 years	6-10 years	Voluntary project in Insulation business for electricity
Other	Low Cost/No Cost actions including utility rebates,	18289	Scope 1	Voluntary	4643874	0	<1 year	6-10 years	Voluntary low cost/no cost projects in

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	setpoint modifications, turning off unused equipment		Scope 2						composites business for electricity and natural gas

CC3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	Within Owens Corning we have implemented an Environmental Management System (EMS) that is implemented at 89 percent of our sites; the remaining sites are acquisitions which we expect to be implemented the following year. Our EMS is based on ISO guidelines and is internally self-audited as well as through our EHS audit team. 30% of our sites are ISO certified 14001 or 18001.
Dedicated budget for energy efficiency	Owens Corning has a dedicated energy budget within each business unit managed by the corresponding Energy Efficiency Program Managers. The portfolios are built through completing an evaluation form, evaluation of ROI, location, impact of CO2 reductions, MWH reductions, and the ability to propagate initiatives across the company.
Employee engagement	All Owens Corning plants have designated energy leaders. Although this is not their full-time responsibility, they do spend a portion of their time engaging the plant in energy efficiency projects/activities, identifying opportunities, developing and implementing energy projects, etc. Energy calls are held monthly between the individual business units to report monthly energy intensity performance against goals, share best practices and discuss new, innovative technologies. Owens Corning has forward reaching Sustainability Goals that include reductions in energy intensity and GHG, which in turn become goals for each plant as well.
Internal price of carbon	We consider scope 1, 2 and 3 emissions, and have both internal and externally published reduction goals. We use our

Method	Comment						
	aligned and committed reduction goals to drive strategy and action, not an actual carbon charge such as an internal carbon tax. For use in internal decision making and risk analysis, we place an economic value on carbon emissions to help frame the challenges and opportunities in monetary, more broadly understood terms than simply tons of emissions. This includes considering the impact on our operations and our supply chain. Quantifying these added costs, in the event that a price is put on carbon in regions around the world where a current price or trading scheme is not in place, provides additional insight into our business decisions. We bracket this analysis, on the low end at \$10/metric ton and a high of \$60/metric ton.						
Internal incentives/recognition programs	Owens Corning has annual global EHS Awards which are available to all employees. Two of these awards are Environmental Impact Improvement and Environmental Outreach which were announced during a global CEO Town Hall. The Environmental Excellence Award was granted to a group of Insulation Science and Technology members who played a key role in developing, troubleshooting and optimizing the EcoTouch® platform. This change in glass batch and binder systems has resulted in an energy savings and reduced emissions. Also, this award was granted to our Summit Roofing & Asphalt site who implemented standards and governance to ensure compliance with internal environmental metrics which will assist in managing excess energy usage and excess environmental emissions. Additionally, the Environmental Outreach Award was granted to one of our employees in Irving, Texas who exudes the behaviors and characteristics we feel are instrumental in an EHS Leader. She not only shows a dedication to the Irving plant but as to the community at large. She made presentations for city leaders and area companies. In additional she helped other companies with their pollution prevention plans. Finally, the Composites business has an annual contest designed to drive participation for the Plant Energy Teams each year with cash awards with are managed by the Energy Efficiency Program Manager. This program evaluates, among other items: (1) site energy meetings with minutes generated, (2) low cost/no cost savings projects implemented, (3) kaizen events and assessments completed, (4) best practices shared across the network, (5) capital projects being implement, and (6) energy network meetings attended.						
Partnering with governments on technology development	Owens Corning opposed legislation to freeze the Ohio State Renewable Energy Standards- SB310. Opposition was expressed through letters and meetings with state representatives, other manufacturers and energy service companies also opposing SB310. SB310 was legislation to put state-wide efficiency efforts on hold. Owens Corning believed it would effectively repeal incentives for energy reduction and efficiency. It would also negatively impact programs local utilities run to trim energy consumption, and help stabilize the state's electricity grid and prices.						
Other	Partnering with the Environmental Defense Fund (EDF) Climate Corps. Owens Corning has focused with the EDF Fellows to focus on reducing our environmental impact. In 2014 we were able to realize a 5 percent reduction in electricity at our Waxahachie facility through their efforts. In 2015 we will partner with the EDF Fellows in China.						

CC3.3d

If you do not have any emissions reduction initiatives, please explain why not

Further Information

Page: CC4. Communication

CC4.1

Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)

Publication	Status	Page/Section reference	Attach the document
In voluntary communications	Underway - previous year attached	ALL	https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared Documents/Attachments/CC4.1/OwensCorning_2013_GRI3.1.pdf

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation Risks driven by changes in physical climate parameters Risks driven by changes in other climate-related developments Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Air pollution limits	Recent interpretation of the Clean Air Act could limit or even prohibit the use of specific raw materials in select products due to GHG emissions	Reduction/disruption in production capacity	1 to 3 years	Direct	About as likely as not	Medium- high	\$5 million - \$20 Million	Our management action plan is to proactively expend R&D resources to either deliver revised product formulations or to have additional engineering solutions in place prior to the enforcement date of the tighter restrictions. The goal of this plan would be to prevent government fines or loss of sales, and it may have the potential to change this risk into an opportunity for increased market share if our competition is behind in modifying their products.	\$1 million - \$3 million
Air pollution limits	Broad and gradual tightening of limits on emissions by the Federal or State run EPAs	Reduction/disruption in production capacity	>6 years	Direct	Likely	Low	\$1 million - \$5 million	Our management action plan is to proactively expend R&D resources to either deliver revised product formulations or to have additional engineering solutions in	Up to \$5 million

CC5.1a

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								place prior to the enforcement date of the tighter restrictions. The goal of this plan would be to prevent government fines or loss of sales, and it may have the potential to change this risk into an opportunity for increased market share if our competition is behind in modifying their products	

CC5.1b

Please describe your inherent risks that are driven by change in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other physical climate drivers	Many of our business activities involve substantial investments in manufacturing facilities and many products	Reduction/disruption in production capacity	1 to 3 years	Direct	More likely than not	Low	Estimated financial implication is \$5 million to \$10 million per incident net of insurance	Insurance, loss prevention and business continuity programs are in place. The loss prevention program focuses on proactively	Up to \$2 million for administration of programs and for physical loss prevention improvements. Owens Corning has a dynamic

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	are produced at a limited number of locations. These facilities could be materially damaged by natural disasters such as floods, tornados, hurricanes and earthquakes or by sabotage. We could incur uninsured losses and liabilities. In addition, natural disasters pose a significant threat to the safety of our employees, contractors, and customers.						recovery	preventing or mitigating damages. Our business continuity program is an integrated approach that involves supply chain and product stewardship to enable redundant production at alternate locations and the means to deliver to customers. This program is expected to ensure customer delivery with a minimum of delay/disruption, as well as shorter production down times at our facilities to minimize production losses. Owens Corning's commitment to safety is unconditional. As such, we continuously review and update our emergency procedures throughout all our	safety program that maintains and executes safety strategies, so there is minimal incremental cost to offset the risk of severe weather with respect to employee and visitor safety.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								facilities. Owens Corning facilities also maintain backup generators, tornado and storm shelters, and rigorous drill schedules to ensure employee and visitor safety.	

CC5.1c

Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	Many of Owens Corning's products are made from heavy manufacturing processes. While Owens Corning continuously strives to be better than regulatory requirements, our factories do produce pollutants.	Other: Reduction in sales	Up to 1 year	Direct	About as likely as not	Low	\$1 million to \$5 million. Negative public perceptions of Owens Corning's products and production process could impact our sales and profitability. With sales of over \$5 billion in	Our Sustainability organization actively and broadly promotes our company's stand for sustainability in the community, throughout our company, and publicly through our sustainability website and annual GRI report. The	Up to \$5 million. Owens Corning invests in the communities where we operate at the plant level, corporately, and through the Owens Corning Foundation. These investments include product donations,

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	This exposes the company to reputational risk in areas with active environmental advocacy groups. There is additional reputational risk for Owens Corning if the potential effects of climate change worsen.						2014, even a very small impact on sales could cost Owens Corning \$5 million or more.	company invests continuously in the reduction of our environmental footprint. Lastly, at the local level, our plants reach out to their neighbors to cultivate strong relationships with residents and community leaders. Overall, our company works hard to promote the value of our products in reducing greenhouse gas emissions and in reducing energy consumption, as well as clearly communicating our efforts to be a net- positive company by reducing our footprint and increasing our environmental handprint.	employee volunteering, and direct financial support. Owens Corning also has a variety of energy and greenhouse gas reduction projects ongoing and in the pipeline.

CC5.1d

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC5.1e

Please explain why you do not consider your company to be exposed to inherent risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC5.1f

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Further Information

Page: CC6. Climate Change Opportunities

CC6.1

Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation Opportunities driven by changes in physical climate parameters Opportunities driven by changes in other climate-related developments

CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Product efficiency regulations and standards	More aggressive building codes and regulations regarding energy efficiency drive the use of insulation and other energy savings products and systems. Increased transportation industry related energy efficiency regulations help drive the use of lighter and stronger materials like glass-fiber reinforcements. Demand for products in our roofing business is generally driven by both residential repair and remodeling activity and by new residential	Increased demand for existing products/services	Up to 1 year	Direct	More likely than not	Medium	Up to \$200 million	Owens Corning actively lobbies the U.S. Department of Energy and other legislative bodies through its Governmental Affairs organization for increased energy conservation requirements. Additionally, Owens Corning actively forecasts demand to ensure product will be on hand to service increased volume.	Up to \$1 million

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
(construction.								

CC6.1b

Please describe the inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in precipitation extremes and droughts	Demand for products in our roofing business is generally driven by both residential repair and remodeling activity and by new residential construction. Roofing damage from strong storms can significantly increase demand in this business.	Increased demand for existing products/services	Up to 1 year	Direct	About as likely as not	Medium	Up to \$100 million	Owens Corning has a strong network of facilities throughout the United States. Through sophisticated supply chain planning, production from each of these locations can be redirected to serve a storm damage market.	\$0 incremental management costs. Increased freight costs are easily passed through in price when serving storm ravaged areas.

Please describe the inherent opportunities that are driven by changes in other climate-related developments

Opportun ity driver	Descriptio n	Potential impact	Timefra me	Direct / Indire ct	Likeliho od	Magnitu de of impact	Estimated financial implicatio ns	Management method	Cost of managem ent
Reputatio n	As the awareness of environme ntal deterioratio n increases, Owens Corning's products become more important to consumers and to builders who market energy efficient structures. Our products are significant to the reduction of GHG from buildings, and thus Owens	Increased demand for existing products/servi ces	Up to 1 year	Direct	More likely than not	Medium	Up to \$50 million	Owens Corning recognizes the importance of sustainability and has embedded building science professionals into the business. We understand the impacts of our products and aim to innovate solutions that provide positive impacts on the building envelope. Our sustainability organization and our sales force actively and broadly promote our company's stand for sustainability and trains professionals on how to achieve maximum environmental benefits using our products. Additionally, the company is a significant user of recycled content and even created a mainstream market for recycling asphalt roofing shingles. For more information on our building science program and certifications of our products please visit our sustainability and building science website: http://www.owenscorning.com/ocbuildingspec/Su stainability/	Up to \$1 million

Opportun ity driver	Descriptio n	Potential impact	Timefra me	Direct / Indire ct	Likeliho od	Magnitu de of impact	Estimated financial implicatio ns	Management method	Cost of managem ent
	Corning stands to benefit from the reputation of promoting sustainabili ty.								

CC6.1d

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC6.1e

Please explain why you do not consider your company to be exposed to inherent opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Further Information

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: CC7. Emissions Methodology

CC7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Wed 01 Jan 2014 - Wed 31 Dec 2014	3154873
Scope 2	Wed 01 Jan 2014 - Wed 31 Dec 2014	1508185

CC7.2

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

CC7.2a

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

CC7.3

Please give the source for the global warming potentials you have used

Gas	Reference	
CO2	IPCC Third Assessment Report (TAR - 100 year)	
HFCs	IPCC Third Assessment Report (TAR - 100 year)	
HFCs	Other: USEPA Global Warming Potentials of ODS Substitutes	
CH4	IPCC Third Assessment Report (TAR - 100 year)	
N2O	IPCC Third Assessment Report (TAR - 100 year)	
Other: HCFC	IPCC Third Assessment Report (TAR - 100 year)	
Other: HCFC	Other: USEPA Global Warming Potentials of ODS Substitutes	

CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
Natural gas	117.08	Other: lb CO2 per dekatherm	US Energy Information Administration (EIA) 1605(b)
Distillate fuel oil No 1	159.535	Other: lb CO2 per dekatherm	US Energy Information Administration (EIA) 1605(b)
Distillate fuel oil No 2	161.386	Other: lb CO2 per dekatherm	US Energy Information Administration (EIA) 1605(b)
Distillate fuel oil No 6	173.906	Other: lb CO2 per dekatherm	US Energy Information Administration (EIA) 1605(b)
Propane	139.178	Other: lb CO2 per dekatherm	US Energy Information Administration (EIA) 1605(b)
Liquefied petroleum gas (LPG)	139.039	Other: lb CO2 per dekatherm	US Energy Information Administration (EIA) 1605(b)
Other: Gasoline	156.425	Other: lb CO2 per dekatherm	US Energy Information Administration (EIA) 1605(b)
Electricity		lb CO2 per MWh	EGRID for US States, IPCC for non-US countries

Further Information

Attachments

https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC7.EmissionsMethodology/CDP7.4_IPCC2006_Emission-Factors-from-Cross-Sector-Tools-(August-2012).xlsx https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC7.EmissionsMethodology/CDP7.4_V2_2_Ch2_Stationary_Combustion.pdf https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC7.EmissionsMethodology/CDP7.4_EIA_EmissionFactors.pdf https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC7.EmissionsMethodology/CDP7.4_US_EPA_gwps.pdf https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC7.EmissionsMethodology/CDP7.4_eGRID_9th_edition_V1-0_year_2010_GHG_Rates.pdf

Page: CC8. Emissions Data - (1 Jan 2014 - 31 Dec 2014)

CC8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

2535719

CC8.3

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

1514945

CC8.4

Are there are any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of Scope 2 emissions excluded from this source	Explain why the source is excluded
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CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	Less than or equal to 2%	No Sources of Uncertainty	Owens Corning for the last two years has undergone an extensive and rigorous process to get its Scope 1 emissions certified by a third party auditor. This was conducted with reasonable assurance of Owens Corning's 2014 emissions against the requirements of the Carbon Disclosure Project and the WRI/WBCSD GHG Protocol: A Corporate Accounting and Reporting Standard, Revised Edition. The verification conducted activities in compliance with ISO 14064-3. We state no sources of uncertainty as the accuracy range (or percentage of confidence) on our emissions have been stated at 99.9% by a third party provider.
Scope 2	Less than or equal to 2%	No Sources of Uncertainty	Owens Corning for the last two years has undergone an extensive and rigorous process to get its Scope 2 emissions certified by a third party auditor. This was conducted with reasonable assurance of Owens Corning's 2014 emissions against the requirements of the Carbon Disclosure Project and the WRI/WBCSD GHG Protocol: A Corporate Accounting and Reporting Standard, Revised Edition. The verification conducted activities in compliance with ISO 14064-3. We state no sources of uncertainty as the accuracy range (or percentage of confidence) on our emissions have been stated at 99.9% by a third party provider.

CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

Third party verification or assurance complete

CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Reasonable assurance	https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared Documents/Attachments/CC8.6a/CDP-Entity_OC_EY2014_Veri_Statement_V3.pdf	1	ISO14064-3	100

CC8.6b

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission

CC8.7

Please indicate the verification/assurance status that applies to your reported Scope 2 emissions

Third party verification or assurance complete

CC8.7a

Please provide further details of the verification/assurance undertaken for your Scope 2 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Reasonable assurance	https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared Documents/Attachments/CC8.7a/CDP-Entity_OC_EY2014_Veri_Statement_V3.pdf	1	ISO14064-3	100

CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
Other: Global stationary and mobile energy sources	Energy consumption amount for both stationary and mobile sources are verified in compliance with ISO 14064-3. The statement attests the SCS Global Services provides reasonable assurance.

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2014 - 31 Dec 2014)

CC9.1

Do you have Scope 1 emissions sources in more than one country?

Yes

CC9.1a

Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e
Belgium	222
Brazil	65122

Country/Region	Scope 1 metric tonnes CO2e
Canada	190630
Chile	151
China	483721
France	75425
India	150056
Italy	46206
Japan	35951
South Korea	46933
Mexico	226368
Netherlands	19263
Russia	36315
Spain	5790
United Kingdom	2473
United States of America	1151093

CC9.2

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By business division By GHG type

CC9.2a

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)
Corporate	9711
Foam	1349601
Insulation Systems Business	336334
Composites Solutions Business	683419
Roofing & Asphalt	156654

CC9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
----------	--	----------	-----------

CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	1185629
HFCs	667862
CH4	2168
N2O	705
Other: HCFC	679353

CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)

CC9.2e

Please break down your total gross global Scope 1 emissions by legal structure

Legal structure	Scope 1 emissions (metric tonnes CO2e)

Further Information

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2014 - 31 Dec 2014)

CC10.1

Do you have Scope 2 emissions sources in more than one country?

Yes

CC10.1a

Country/Region	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted for in CC8.3 (MWh)
Belgium	351	1621	0
Brazil	3371	52563	0
Canada	40867	24448	0
Chile	30450	81676	0
China	111375	150175	0
France	7616	149907	0
India	83376	87660	0
Italy	22519	58393	0
Japan	15796	38097	0
South Korea	46881	94377	0
Mexico	81996	180498	0
Netherlands	7409	19864	0
Russia	16726	52960	0
Singapore	854	1646	0
Spain	2823	9476	0
United Kingdom	2613	5813	0
United States of America	1039922	1758540	0

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

CC10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By business division

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 emissions (metric tonnes CO2e)
Corporate	110041
Foam	28662
Insulation Business	633759
Composites Solution Business	673028
Roofing & Asphalt	69456

CC10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 emissions (metric tonnes CO2e)

CC10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2 emissions (metric tonnes CO2e)

CC10.2d

Please break down your total gross global Scope 2 emissions by legal structure

Legal structure	Scope 2 emissions (metric tonnes CO2e)

Further Information

Page: CC11. Energy

CC11.1

What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

CC11.2

Please state how much fuel, electricity, heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Fuel	5669459
Electricity	2987714
Heat	0
Steam	0
Cooling	0

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Natural gas	5464572
Distillate fuel oil No 1	65
Distillate fuel oil No 2	15121
Distillate fuel oil No 6	109021
Propane	33726
Liquefied petroleum gas (LPG)	32680
Diesel/Gas oil	13356
Other: Gasoline	918

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the Scope 2 figure reported in CC8.3

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comment
No purchases or generation of low carbon electricity, heat, steam or cooling accounted with a low carbon emissions factor	0	NA

Further Information

Page: CC12. Emissions Performance

CC12.1

How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Decreased

CC12.1a

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	.1	Decrease	Reductions directly attributable to the use of GHG blowing agents with lower GWP factors
Divestment			
Acquisitions			
Mergers			
Change in output	.2	Decrease	Decrease in scope 1 and 2 for stationary energy sources, indirect energy sources, and raw material inputs are directly related to year over year changes in production output.
Change in methodology			
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other			

CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
744	metric tonnes CO2e	unit total revenue	1	Decrease	Improved our GHG footprint, utilizing normalized sales, by reducing the GHG emissions intensity of our manufacturing facilities while reducing our absolute and intensity based emissions. Various projects were implemented across the composites and insulation business to enable the reduction of the GHG emissions. The descriptions of the projects are provided section 3.2b, which contributed to the reduction in our combined scope 1 and 2 emissions.

CC12.3

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
290	metric tonnes CO2e	FTE employee	3	Increase	We registered a 3% increase in the GHG intensity over full time equivalent (FTE). This is essentially due to the decrease in our full time equivalent in 2014.

CC12.4

Please provide an additional intensity (normalized) metric that is appropriate to your business operations

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
1.76	metric tonnes CO2e	metric tonne of product	2	Decrease	Improved our greenhouse gas intensity, GHG divided by units of products produced, by reducing the GHG emissions intensity of our manufacturing facilities while reducing our absolute emissions. Various projects were implemented across the composites and insulation business to enable the reduction of the resultant GHG emissions. The descriptions of the projects are provided section 3.2b, which contributed to the reduction in our combined scope 1 and 2 emissions.

Further Information

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

Yes

CC13.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership
European Union ETS	Wed 01 Jan 2014 - Wed 31 Dec 2014	137444	0	142123	Facilities we own and operate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership
Other: Quebec Cap & Trade	Wed 01 Jan 2014 - Wed 31 Dec 2014	205883	30000	135751	Facilities we own and operate

CC13.1b

What is your strategy for complying with the schemes in which you participate or anticipate participating?

Owens Corning implemented a global strategy to reduce emissions of greenhouse gas across our operations. This strategy is represented in our greenhouse intensity goal of a 20% reduction from 2010 to 2020. As a company, we focus on reducing the emissions from our raw materials and processing, increasing renewable energy sources, while also implementing low cost/no-cost solutions to drive reductions. Additionally in prior years we have reorganized operations by loading and upgrading the most efficient assets. Owens Corning has a long-term strategy to manage its CO2 allowances focused on compliance with regulations and then driving cost reductions while taking advantage of market opportunities in areas where trading schemes are in existence.

CC13.2

Has your organization originated any project-based carbon credits or purchased any within the reporting period?

No

CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits cancelled	Purpose, e.g. compliance
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Further Information

Page: CC14. Scope 3 Emissions

CC14.1

Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluatio n status	metric tonnes CO2e	Emissions calculation methodology	Percentag e of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, calculated	376426 2	Scope 3 emissions for purchased goods and services were determined using an EIO-LCA based method. The calculation was performed using the EIO-LCA on-line tool developed by Carnegie Mellon University1. The respective NAICS manufacturing industry sectors associated with Owens Corning's three major business operations were identified, and Net Sales figures found in the 2015 Owens Corning Form 10-K Annual Report2 were used as indicators of and inputs for economic	100.00%	http://www.eiolca.net/cgi-bin/dft/use.pl http://investor.owenscorning.com/SEC- filings/2015/default.aspx?FormGroups=1 4

Sources of Scope 3 emissions	Evaluatio n status	metric tonnes CO2e	Emissions calculation methodology	Percentag e of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			activity in each of the three respective sectors. https://www.census.gov/eos/www/naics/		
Capital goods	Relevant, calculated	106674	Determination of scope 3 emissions associated with capital goods expanded on the methodology used for that of Purchased goods and services. Primary data was collected internally on 2014 total spend for capital expenditure. The spend data was categorized into five categories followed by identification of the NAICS industry sector associated with each category of spend data. Total spend in each category was used as the indicator of economic activity and used as the input in the EIO-LCA on-line tool.	100.00%	
Fuel-and- energy- related activities (not included in Scope 1 or 2)	Relevant, calculated	12574	Owens Corning is referencing factors from U.S. Energy Information Administration (EIA) 1605(b), IPCC 2006, and U.S. EPA eGRID where appropriate.	100.00%	Fuel and energy related activities, not accounted for in Scope 1 or Scope 2, are factored from mobile energy sources which are directly related to production output. These emissions are developed from energy use related to such items as on-site vehicles and forklifts.
Upstream transportatio n and distribution	Relevant, calculated	141752	Primary data was collected internally from Owens Corning logistic analysts for 2014 total spend associated with the inbound transportation of all purchased materials. Spend data was categorized based on the mode of transportation (i.e., passenger ground, tuck, rail, and water). After determining the NAICS industry sector for each of the four modes of transportation, total spend in each transportation category was used as the indicator of economic activity and used as the input in the EIO-LCA on-line tool.	100.00%	
Waste generated in operations	Not relevant, explanatio		Not Applicable as listed as not relevant		Our waste streams, which are primarily forms of glass, are inert and have negligible emissions.

Sources of Scope 3 emissions	Evaluatio n status	metric tonnes CO2e	Emissions calculation methodology	Percentag e of emissions calculated using data obtained from suppliers or value chain partners	Explanation
	n provided		Includes commercial sinterval and worthlass emissions		Owene Coming is showing a 220/
Business travel	Relevant, calculated	9459	Methodology: Owens Corning is using Climate Leaders protocol for calculating GHG emissions related to corporate travel.	100.00%	absolute reduction in business travel activities since base year 2010.
Employee commuting	Relevant, calculated	36331	Owens Corning used a simplified version of the Scope 3 Protocol's average-data method to calculate employee commuting emissions. We used the U.S. EPA Greenhouse Gas Emissions from a Typical Passenger Vehicle(http://www.epa.gov/otaq/climate/documents/420f14040a.p df) to determine an estimate of 411 grams of CO2 per mile. We used Worldmapper Commuting Time By Country (http://www.worldmapper.org/display.php?selected=141) data along with Owens Corning employees by country to estimate that our employees have an average round-trip commuting distance of 28.62 miles. These factors were multiplied by the 2013 OECD average number of days worked per year of 221.25 (taken from http://stats.oecd.org/index.aspx?DataSetCode=ANHRS) and Owens Corning's 2014 employee count (13960).	100.00%	Because this is a high level estimated calculation, Owens Corning assumes that these calculated emissions for employee commuting are overstated, since we assume that all employees are in a single car commuting daily. This does not take into account telecommuting, public transportation, carpooling, business travel days that would be accounted for separately, or other methods of commuting.
Upstream leased assets	Not relevant, explanatio n provided		Not Applicable as listed as not relevant		All our relevant leased assets have been accounted for under Scope 2 emissions. We account for both their estimated electricity usage and estimated GHG Emissions based on the square footage of space while utilizing factors from the Energy Star Portfolio Manager (1) Energy Star Portfolio Manager - Energy Star Score for Warehouses in the United States for warehouses, (2) Energy Star Portfolio Manager - Energy Use in Office

Sources of Scope 3 emissions	Evaluatio n status	metric tonnes CO2e	Emissions calculation methodology	Percentag e of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					Buildings for building types of office and other. The data is subsequently calculated using factors from the US EPA EGRID and the 2006 IPCC International Fuel-based Electricity Emission Factors for CO2 factors as appropriate.
Downstream transportatio n and distribution	Relevant, calculated	128057	Primary data was collected internally from Owens Corning logistic analysts for 2014 total spend associated with the outbound distribution and transportation for finished goods. For this calculation, scope 3 emissions were only calculated for the roofing and asphalt business. Transportation spend data was allocated entirely to truck transportation as the mode of distribution for a more conservative approximation. Total transportation spend was used as the indicator of economic activity and used as the input in the EIO-LCA on-line tool.	100.00%	
Processing of sold products	Relevant, calculated	439044	Scope 3 emissions were calculated and determined for Owens Corning's composites business, which primarily manufactures intermediate products. These glass fibers are, primarily, used by customers in order to make glass-fiber reinforced plastic (GFRP) materials. Calculation of Scope 3 emissions involved identifying the NAICS sector associated with GFRP manufacturing followed by developing a process scaling-factor based on the economic flow of the NAICS sector for glass fiber manufacturing within the sector for GFRP manufacturing.	100.00%	
Use of sold products	Not relevant, explanatio n provided		Not Applicable as listed as not relevant; LCA according to ISO 14040-44.		None of our products have end use energy consumption. The impact from the use of sold products is avoided emissions. Our building insulation

Sources of Scope 3 emissions	Evaluatio n status	metric tonnes CO2e	Emissions calculation methodology	Percentag e of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					products sold in North America during the calendar year 2014 were estimated to reduce the GHG emissions for home owners by approximately 9.44 million metric tons CO2-e a year and 566 million metric tons over the building's lifetime.
End of life treatment of sold products	Relevant, calculated	146125	Scope 3 emissions associated with the End-of-Life (EoL) of fiberglass insulation and XPS insulation products manufactured in 2014 were calculated. EoL emission factors were developed from cradle-to-grave LCAs on Owens Corning [™] fiberglass insulation and XPS insulation. The 3rd party verified LCAs were internally conducted for these products in 2012 and 2013, respectively. These factors were used in conjunction with 2014 production volumes for the two insulation materials to determine the scope 3 emissions when the production volume quantities are disposed as waste-to-landfill. Scope 3 EoL emissions were determined for Owens Corning insulation manufacturing operations, and, more specifically, only for fiberglass and XPS insulation,	100.00%	
Downstream leased assets	Not relevant, explanatio n provided		Not Applicable as listed as not relevant		Owens Corning does not have any downstream leased assets
Franchises	Not relevant, explanatio n provided		Not Applicable as listed as not relevant		Owens Corning has a small basement finishing system franchise business that is immaterial to the company.
Investments	Not relevant,		Not Applicable as listed as not relevant		Owens Corning is not a private or public financial institution. All investments in

Sources of Scope 3 emissions	Evaluatio n status	metric tonnes CO2e	Emissions calculation methodology	Percentag e of emissions calculated using data obtained from suppliers or value chain partners	Explanation
	explanatio n provided				new businesses are accounted for under scope 1 or scope 2.
Other (upstream)					
Other (downstream)					

CC14.2

Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

Third party verification or assurance complete

CC14.2a

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of Scope 3 emissions verified (%)
Reasonable assurance	https://www.cdp.net/sites/2015/32/14132/Climate Change 2015/Shared Documents/Attachments/CC14.2a/CDP- Entity_OC_EY2014_Veri_Statement_V3.pdf	Page 1 - the verification of Scope 3 is completed for only business travel and Fuel-and-energy-related activities (not included in Scope 1 or 2).	ISO14064- 3	1

CC14.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Business travel	Emissions reduction activities	7	Decrease	Reduction in Scope 3 for business travel related to commercial air travel and rental cars.
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Change in output	7	Increase	Increase in Scope 3 for mobile energy sources, indirect energy sources, and raw material inputs are directly related to year over year changes in production output.

CC14.4

Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

Yes, our suppliers Yes, our customers

CC14.4a

Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

Owens Corning has a Supplier Code of Conduct which has requirements for environmental performance which includes GHG and Climate change initiatives. Each year we ask our top tier suppliers to complete a survey indicating their compliance with our Code of Conduct.

Owens Corning hosts an Annual Supplier Day in September. Representatives from Owens Corning's top strategic and critical suppliers gather for a full-day of training, top-supplier awards and business strategy and conditions updates from Senior Management. Supplier recognition awards are presented for: Safety, Sustainability, Innovation, Value Creation, Risk Mitigation, Spirit of Partnership and Supplier of the Year. A separate, but very similar event is held for Owens Corning's transportation providers.

Owens Corning works with contracted upstream & downstream transportation service providers to improve fuel efficiency and reduce emissions. All service providers are asked to be USEPA's SmartWay Certified. We partner with Dillon Transport, Modern Transport and others on a fuel switch (diesel to natural gas) initiative to bring about energy efficiency and greenhouse gas reductions and other transport emissions. We asked all fleet companies to engage in this project.

Owens Corning, the New York State Energy Research and Development Authority (NYSERDA) and

Constellation completed of a 2.7-megawatt (DC) solar generation project at Owens Corning's thermal and acoustical insulation plant in late 2013. 2014 saw the first full year of operation The solar installation, which is the largest project to date under Governor Andrew M. Cuomo's NY-Sun initiative, is designed to supply approximately 6 percent of the plant's annual electricity needs. Constellation financed, built, owns and maintains the solar power system. Electricity generated by the system is purchased by Owens Corning under a 20-year power purchase agreement with Constellation.

We also work with both suppliers and customers in defining and minimizing the footprint of our products through Life Cycle Assessments and Environmental Product Declarations.

We regularly work with customers and influencers to the building industry to build more efficient and lower impact homes and buildings. NewTown builders case study is a great example of bringing the expertise and products together.

CC14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Number of suppliers	% of total spend	Comment
995	81%	Owens Corning's suppliers are weighted and scored accordingly on impact and risk (low to high) resulting in four quadrant segmentation defined as: Critical, Collaborative, Transactional & Constraint

CC14.4c

If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data

How you make use of the data	Please give details
Use in supplier scorecards	Owens Corning has an integrated supply chain assessment through a supplier survey every year to manage the impact of our suppliers. Key components of the survey include traceability, transparency, measuring the impact and collaborating with suppliers. The supplier survey gives us the opportunity to work with suppliers and stakeholders collaboratively to embed sustainable sourcing practices. Companies who supply goods and services to us are as much a part of the total supply chain of our business as our own operations. As a result, we use these strategic data in making our business imperative to work with and nurture relationships with suppliers to assure they are dedicated to upholding high standards in how they run their companies. We believe that every supplier should have sustainability goals as part of their performance objectives to utilize the index to measure progress against those goals. Based on suppliers' responses, we assess relative supplier risk for prioritizing supply chain monitoring and supplier engagement resources. Supply chain transparency has helped us to measure progress of our suppliers, foresee risks and identify opportunities for partnerships to improve social, environmental and economic results.
Identifying GHG sources to prioritize for reduction actions	Through the use of LCA modeling tools, we can generally quantify our upstream GHG emissions. In order to more specifically pinpoint where reductions can be made, we are using the LCA models created for particular products and will be engaging with the suppliers of those raw materials to identify future actions in addition to the supplier scorecards discussed above.

CC14.4d

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

Further Information

Module: Sign Off

Page: CC15. Sign Off

CC15.1

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

Name	Job title	Corresponding job category
Frank O'Brien-Bernini	Vice President & Chief Sustainability Officer	Other: Company Officer

Further Information

CDP 2015 Climate Change 2015 Information Request