

Module: Introduction**Page: Introduction**

CC0.1**Introduction**

Please give a general description and introduction to your organization.

M50 Concession Ltd (www.m50concession.com) is the company in charge of the operation and maintenance of the M50 motorway in Dublin, Ireland. The M50 is a 40 Km C-shaped ring around Dublin that connects all the National Primary Routes leaving the capital and carries more than 120,000 vehicles per day. In 2007, the Irish Government awarded M50 Concession Ltd the 35-year concession contract to construct, finance and operate the M50. M50 Concession Ltd shareholders are Globalvia Inversiones, a major worldwide infrastructure developer and operator (www.globalvia.com), and DIF, an independent fund management company (www.dif.eu).

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 will be disclosed

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

Ireland

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.

EUR(€)

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

M50 Concession Ltd aims to become the reference of the motorway operators in Ireland by conducting its business in a responsible and sustainable manner, respectful with the environment and committed to the society and its stakeholders. For this reason, M50 Concession Ltd operates under a Quality and Environmental Management System certified under ISO 14001, ISO 9001 and OHSAS 18001. As part of Environmental Policy (attached) we are committed to improve our environmental performance and minimise our adverse environmental impacts. In this sense, CDP represents a key element of our environmental strategy. We started to complete assessments on our carbon footprint in 2014 and set up a specific company objective to reduce our carbon emissions in the next years. In 2014, we joined the CDP and submitted a public response covering 2012 and 2013 reporting years.

Attachments

<https://www.cdp.net/sites/2015/60/53060/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC0.Introduction/M50 Concession Ltd's Environmental Policy Statement.pdf>

Module: Management

Page: CC1. Governance

CC1.1

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

Senior Manager/Officer

CC1.1a

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

The Board of Directors, chaired by Brendan McGinn, has overall responsibility for ensuring that the strategy for managing climate change aspects meets the needs of M50 Concession Ltd. and its stakeholders. The General Manager, Borja Santamaria, has the direct responsibility for implementing the climate change strategy and for the day-to-day management of climate change matters.

CC1.2

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

No

CC1.2a

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

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment

Further Information

2014 was the first year the Company assessed and reported its carbon footprint and so no targets or incentives regarding climate change issues were implemented. However, the Board of Directors is currently evaluating the future introduction of economic incentives for the management related to the attainment of the Company's carbon emissions target through its existing annual appraisal procedure.

Page: CC2. Strategy

CC2.1

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

There are no documented processes for assessing and managing risks and opportunities from climate change

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
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CC2.1b

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

CC2.1c

How do you prioritize the risks and opportunities identified?

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
Insufficient knowledge of climate change impacts	Yes	

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) How the business strategy has been influenced -

The business strategy is agreed by the Board of Directors on an annual basis. To define the business strategy, the Board of Directors takes into consideration any relevant risks and opportunities in the short and long term. In 2014, the Board of Directors decided to include among its considerations to define the business strategy all those relating to climate change and the General Manager was made responsible for their collection and reporting. Since then, the risks and opportunities related to climate change have been collected on an on-going basis through the QEMS Management Review Committee, which is chaired by the General Manager and comprises of the rest of the operating managers of the Company. Once the business strategy is agreed, then it is captured into the annual business plan which is reflected into the annual budget. The annual budget facilitates the appropriate planning, resourcing and implementation of any climate change related activities identified.

ii) What aspects of climate change have influenced the strategy –

The business strategy has been mainly influenced by the aim of the Company to improve our environmental performance and minimise our adverse impacts on climate change. For that reason, and although the Company has no legal or regulatory obligations in relation to climate change reporting or performance, the Board of Directors decided in 2014 that the Company should start identifying and implementing green business initiatives including reporting to CDP.

iii) The most important components of the short term strategy that have been influenced by climate change -

Our short-term business strategy responds to climate change in two main ways:

- Assessing the impact that our business has on climate change: This has translated into changes on our operational procedures to ensure an appropriate tracking of our GHGs emissions.
- Delivering specific initiatives to reduce our impact on climate change: Our initiatives are orientated on reducing our current level of GHG emissions and focused specially on our electricity consumption, which represents more than 80% of our current emissions.

iv) The most important components of the long term strategy that have been influenced by climate change –

The Company considers that material climate change risks are unlikely to materialise in the next twenty years. However, in terms of opportunities, the Company recognises that any climate change initiative must be evaluated on a long term perspective, taking into account the whole length of our Contract. As an example, our long term streetlighting strategy has been evaluated on the basis of a cost-benefit analysis where climate change has been taken into account. As a result, it has been decided to pursue the introduction of a new dimming technology which will represent a major investment for the Company in the short term but long term benefits in terms of GHG emissions reduction.

v) How this is gaining us strategic advantage over our competitors -

The integration of climate change into our business strategy is helping us to conduct our activity in a responsible and sustainable manner. This proves our commitment with society and enhances our relationships with our Authority and stakeholders, helping us to achieve our goal to be generally recognised as the lead

reference of the motorway operators in Ireland. We considered this recognition to be a key competitive advantage. In addition to this, the integration of climate change into our business strategy is encouraging us to set up targets and implement initiatives to reduce our emissions. We have found that most of the initiatives proposed represent also cost efficiencies that are improving the economic performance of the Company both in the short and in the long term.

vi) What have been the most substantial business decisions made during the reporting year that have been influenced by the climate change driven aspects of the strategy -

- The decision to carry out an assessment on the Company's carbon footprint as well as to join the CDP.
- The implementation of tools to ensure the on-going tracking of our GHGs emissions, like energy, waste and fuel trackers.
- The definition of environmental objectives related to the reduction of our GHGs emissions. Specifically, the objective to reduce energy use by a 5% in 2014 when compare to 2013.
- The decision to carry out research and investigations to define the best alternatives to achieve these objectives. Specifically, the Company has worked during the last whole year to define an action plan for its long term streetlighting strategy, based on the large experience which its shareholder Globalvia has gained from its involvement in various motorway projects around the world. The research resulted in a proposal to install power regulators and implement a dimming strategy in the motorway. Our long term winter maintenance strategy was also evaluated in 2014 on similar basis and as a result it was proposed to move from a dry-salt strategy to a pre-wet strategy.
- The decision to implement specific actions to make those proposals a reality, including the installation of power regulators in one stretch of the motorway to carry out a dimming trial and the retrofitting of all our gritters and acquisition of a brine plant to move to a pre-wet winter maintenance strategy. Those actions represented investments for 105,497 euros in 2014.

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?

No, and we currently don't anticipate doing so in the next 2 years

CC2.2d

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

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)

No

CC2.3a

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

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
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CC2.3b

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

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?
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CC2.3d

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

CC2.3e

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

CC2.3f

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

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?

CC2.3i

Please explain why you do not engage with policy makers

Currently there is no mandatory reporting policy on climate change in Ireland but it is expected that the Irish Government will implement such a scheme in the near future. M50 Concession Ltd aims to take part on the incoming discussions regarding the new government policy on climate change through our membership in IBEC (Irish Business and Employers Confederation). IBEC is the most relevant association representing Irish business and it works with government and policy makers, nationally and internationally, to shape business conditions and drive economic growth

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?

No opinion

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)

We are currently focused on our internal emission reduction activities and our board of directors has not considered yet their position on what an effective agreement at COP 21 would mean for our organisation.

Further Information

Page: CC3. Targets and Initiatives

CC3.1

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

No

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
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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
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CC3.1d

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

ID	% complete (time)	% complete (emissions)	Comment

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

- i) 2014 was our first year measuring our emissions and responding to CDP. However, a target has been already set up for 2015, consisting of reducing carbon emissions by 14% measured in absolute terms in relation to 2014 emissions, in terms of metric tonnes CO₂e.
- ii) Our overall emissions should ideally reduce over the coming 5 years on a 30% in absolute terms in relation to 2012 emissions, our base year, measured in terms of metric tonnes CO₂e.

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

- i) Explanation on how emissions are/were avoided by the third party;
 Transport is a significant contributor to GHG emissions. However motorways reduce the Scope 1 emissions associated with a specific trip. This is because free-flow travel produces lower emissions than a comparable trip in the stop-start conditions of major arterial roads. In our particular case, M50 Concession Ltd carried out between 2007 and 2010 major improvements on the M50 motorway as part of the M50 Upgrade Scheme works. These works included the construction of a third lane in each direction in a total distance of approximately 32km and the provision of auxiliary lanes in nearly 16km. Traffic circulation was further improved by upgrading all the interchanges to provide full or partial free flow lanes. Finally, the old toll barrier plaza was substituted with a fully electronic barrier-free tolling system.
 As a result of these upgrading works, travel times and congestion problems were improved in a very significant way in all the Dublin Metropolitan Area. It is

estimated than journey times on M50 were reduced roughly by a 50% during the day, thus benefiting an average of 120,000 customers who use the M50 motorway every day.

ii) An estimate of the amount of the emissions that are/were avoided over the time (must include timescale over which emissions are avoided or baseline year); M50 Concession Ltd has not available an accurate estimation of the avoided emissions by third parties.

iii) Methodology, assumptions, emission factors and GWPs (if figure given in CO₂e) used for the estimations. M50 Concession Ltd has not available an accurate estimation of the avoided emissions by third parties.

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 CO ₂ e savings in metric tonnes CO ₂ e (only for rows marked *)
Under investigation	2	105
To be implemented*	2	1100
Implementation commenced*	0	0
Implemented*	2	48
Not to be implemented	1	4

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	Reduction of the streetlighting consumption in the motorway: This initiative consists of the implementation of a policy of varying lighting levels on the M50 motorway to match the traffic volume, in compliance of the minimum standards defined by the EN 13201/BS 5489-1:2003 and the Technical Report 27 "Code of Practice for Variable Lighting Levels for Highways". In order to implement a varying lighting system on the motorway, centralised power controllers are installed on the meters. In order to test and verify the solution proposed, M50CL installed the system on one section of the motorway between Junction 4 Ballymun and Junction 5 N2 in November 2014. The section chosen has a total of 5 meters that feeds 149 lamps, 29 of them are 600W, 70 are 400 W, 30 are 250W and 20 are 100W. The results showed that the power control units are effective in reducing energy consumption by a 35% with no negative impact on road safety and attracting no complaints from the road users. Considering only the section of the trial, this initiative represents savings of 271,091 KWh per year. The Company intends to extend this	43	Scope 2	Voluntary	12963	21660	1-3 years	6-10 years	

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
	initiative to the entire M50 motorway during 2015, an action that we estimate will represent total savings of 1,131 tons (CO2e) per year in terms of Carbon Emissions.								
Process emissions reductions	Use of pre-wetted salting for Winter Maintenance: This initiative consisted of changing our winter maintenance strategy from using a dry salt gritting process to the use of a system that partially replaces some of the dry salt with a brine solution, known as a pre-wet system. The pre-wet system uses substantially less salt than the dry winter maintenance system. In order to use the pre-wet system, the Company undertook capital investments in 2014 to upgrade the existing gritters, provide brine storage tanks and undertake civils works to locate the storage tanks. The initiative was implemented in October 2014. Thanks to it, the consumption of salt will be reduced in the future by 16%. Taking into account that the average salt consumed in previous years was 1,000 tons, this initiative will represent annual savings of 160 tons of salt per year.	5	Scope 3	Voluntary	8592	83837	4-10 years	6-10 years	

CC3.3c

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

Method	Comment
Financial optimization calculations	Net Present Value (NPV) / pay back periods: Investment in emission reduction activities are driven by the long term cost-benefit analysis and pay-back periods.
Employee engagement	Staff engagement around emission reduction activities is promoted through our QEMS System and driven through the QEMS Management Review Committee meetings.

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
No			

Further Information

As a private Irish company, we don't have any legal or regulatory obligations in relation to publish our climate change performance. However, the Company decided in 2014 to measure and to voluntarily disclose our emissions to GDP as part of our climate change initiatives.

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

CC5.1a

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
Carbon taxes	Increase in the current carbon tax in Ireland aimed at reducing GHG emissions, including transport.	Increased operational cost	Unknown	Indirect (Supply chain)	Likely	Low	We anticipate low negative financial implications from the increase in Carbon taxes related to the fact that operating costs will increase as a result of the carbon	Setting up of targets and implementation of measures to reduce our GHG emissions in the short and long term, using the GDP reporting	These actions don't represent additional material management costs to the business.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							tax, the expansion of the renewable energy requirements and the consequential increases in CPI.	initiative as the main driver of this process.	
Uncertainty surrounding new regulation	The current uncertainty surrounding the future of Emission's Policy in Ireland	Increased operational cost	Unknown	Indirect (Supply chain)	Unknown	Unknown	Unkown	M50 Concession Ltd. carries out annual reviews and updates on legislation as part of our QEMS, including climate change legislative developments	These actions don't represent additional material costs to the business.
Emission reporting obligations	Introduction by the Irish Government of new regulations that demand the disclosure of data to private entities regarding energy reporting obligations as well as emissions reporting	Increased operational cost	Unknown	Direct	More likely than not	Low	Additional costs in order to put in place the necessary reporting processes and procedures	Anticipation of the potential requirements by joining the CDP in advance.	These actions don't represent additional material costs to the business.

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
Change in precipitation extremes and droughts	An increase in extreme rainfall events has the potential to increase the number of road incidents, landslips, flooding and deterioration of some infrastructure.	Increased operational cost	Unknown	Direct	Likely	Low	We anticipate a low increase in operating and maintenance costs	Implementation of climate change initiatives, like the CDP reporting initiative.	These actions don't represent additional material costs to the business.
Snow and ice	An increase in the severity and number of extreme ice and snow events will increase the winter maintenance requirements and could multiply the number of road incidents in the road, as well as accelerate the deterioration of the asphalt and some other infrastructure assets.	Increased operational cost	Unknown	Direct	Likely	Low	We anticipate low negative financial implications related to the increase in winter maintenance costs (salt consumption, gritting operations, etc)	Implementation of climate change initiatives, like the CDP reporting initiative.	These actions don't represent additional material costs to the business.
Change in temperature extremes	A significant increase in temperature may accelerate the deterioration rate of the asphalt. This may lead to traffic disruption and vehicle damage. Extreme temperatures may also lead to an increase in the	Increased operational cost	Unknown	Direct	Likely	Low	We anticipate low increases in pavement maintenance and replacement costs.	Implementation of climate change initiatives, like the CDP reporting initiative.	These actions don't represent additional material costs to the business.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	number of vehicles breaking down, which may lead to traffic flow disruption and road congestion.								

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
Other drivers	There may be fewer additional public funds available to improve our motorway as they would be used in favour of public transport and alternative land transport such as rail.	Reduced demand for goods/services	Unknown	Direct	Very unlikely	Low	We anticipate a reduction of additional revenues from operational variations to our contract.	Implementation of climate change initiatives, like the CDP reporting initiative.	These actions don't represent additional material costs to the business.

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 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
Fuel/energy taxes and regulations	Regulations aimed mainly at the consumption of fuel may lead to less travel on our motorway. As our revenues consist mainly of availability payments, they won't be affected by a reduction on traffic volumes. However, we will benefit from a positive impact in our operating and maintenance costs.	Reduced operational costs	Unknown	Indirect (Client)	Unknown	Low	We anticipate small reduction of operating and maintenance costs related to the fact that there will be less vehicles and heavy trucks using the motorway	Implementation of climate change initiatives, like the CDP reporting initiative.	These actions don't represent additional material costs to the business.

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
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CC6.1c

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behaviour	Government and community action to reduce GHG emissions from transport may lead to less travel on our motorway. As our revenues consist mainly of availability payments, they won't be affected by a reduction on traffic volumes. However, we will benefit from a positive impact in our operating and maintenance costs.	Reduced operational costs	Unknown	Indirect (Client)	Exceptionally unlikely	Low	We anticipate small reduction of operating and maintenance costs related to the fact that there will be less vehicles and heavy trucks using the motorway	Implementation of climate change initiatives, like the CDP reporting initiative.	These actions don't represent additional material costs to the business.

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

We have assessed the physical impacts from climate change and we don't consider that these will result in any significant opportunities for M50 Concession Ltd. In fact, we consider the potential physical impacts of climate change on our business as risks to be managed rather than opportunities to the business and these are addressed in the risk section of our submission

CC6.1f

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	Sun 01 Jan 2012 - Mon 31 Dec 2012	258
Scope 2	Sun 01 Jan 2012 - Mon 31 Dec 2012	1826

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
ISO 14064-1
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 Fourth Assessment Report (AR4 - 100 year)
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	IPCC Fourth Assessment Report (AR4 - 100 year)

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
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Further Information

Please, find attached an Excel spreadsheet with the emissions factors applied and their origin.

Attachments

[https://www.cdp.net/sites/2015/60/53060/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC7.EmissionsMethodology/M50CL Emission Factors 2014.xlsx](https://www.cdp.net/sites/2015/60/53060/Climate%20Change%202015/Shared%20Documents/Attachments/ClimateChange2015/CC7.EmissionsMethodology/M50CL%20Emission%20Factors%202014.xlsx)

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

259

CC8.3

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

1736

CC8.4

Are there 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	More than 2% but less than or equal to 5%	Metering/ Measurement Constraints	The Company has electronically controlled tanks for all their fuel but a minimum uncertainty is considered to allow for potential system errors.
Scope 2	More than 5% but less than or equal to 10%	Metering/ Measurement Constraints	Reliant on 3rd party supplier for data. Monthly energy consumptions are provided by the energy supplier and actual official meter readings carried out by ESB, the licensed operator of the electricity distribution system in Ireland, are only completed whenever there is a change in the energy supplier. For example, last official reading took place in October 2014.

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/2015/60/53060/Climate Change 2015/Shared Documents/Attachments/CC8.6a/M50 Concession Verification CDP 2015.pdf	Page 1 / verification report	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
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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/2015/60/53060/Climate Change 2015/Shared Documents/Attachments/CC8.7a/M50 Concession Verification CDP 2015.pdf	Page 1 / verification report	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
No additional data verified	

CC8.9

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?

No

CC9.1a

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

Country/Region	Scope 1 metric tonnes CO2e

CC9.2

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

By activity

CC9.2a

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

Business division	Scope 1 emissions (metric tonnes CO2e)
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CC9.2b

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

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
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CC9.2c

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

GHG type	Scope 1 emissions (metric tonnes CO2e)
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CC9.2d

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

Activity	Scope 1 emissions (metric tonnes CO2e)
Transport	230
Heating	29

CC9.2e

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

Legal structure	Scope 1 emissions (metric tonnes CO2e)
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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?

No

CC10.1a

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

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)
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CC10.2

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

By activity

CC10.2a

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

Business division	Scope 2 emissions (metric tonnes CO2e)
-------------------	--

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)
Streetlighting	1680
Office Lighting	56

CC10.2d

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

Legal structure	Scope 2 emissions (metric tonnes CO2e)
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Further Information

Page: CC11. Energy

CC11.1

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

More than 10% but less than or equal to 15%

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	1014
Electricity	3839
Heat	
Steam	
Cooling	

CC11.3

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

Fuels	MWh
Kerosene	112
Diesel/Gas oil	873
Motor gasoline	30

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		

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	0.2	Decrease	Gross Scope 1+2 emissions decreased by 0.2%, due to energy efficiency activities undertaken, mainly for our streetlighting. consumption. They implied the installation of a dimming system in one stretch of the motorway since 26th November 2014. As a result, we have achieved 4 tons of saving in 2014. As total S1 and S2 emissions in 2013 was 2,284, therefore we arrived at 0.2% through $(4 / 2,284) * 100 = 0.2\%$.
Divestment			
Acquisitions			
Mergers			
Change in output		No change	
Change in methodology	5.0	Decrease	Gross Scope 1+2 emissions decreased by 114 tons due to changes in the emissions factors used from 2013 to 2014 (Defra factors for Scope 1 emissions and CER factors for Scope 2 emissions). As total S1 and S2 emissions in 2013 was 2,284, therefore we arrived at 5.0% through $(114 / 2,284) * 100 = 5.0\%$
Change in boundary	3.7	Decrease	Gross Scope 1+2 emissions decreased by 83 tons due to the hand-over of 8km of the motorway to the Authority that took place on 27th September 2014, as stated in the PPP Contract. The hand-over represented the exclusion from the Scope 2 emissions of the streetlighting associated to that stretch of

Reason	Emissions value (percentage)	Direction of change	Comment
			motorway. As total S1 and S2 emissions in 2013 was 2,284, therefore we arrived at 3.7% through $(83/2,284)*100=3.7\%$
Change in physical operating conditions			
Unidentified	0.3	Decrease	Gross Scope 1+2 emissions decreased by 8 tons due to unidentified reasons, probably related to the levels of uncertainty associated to the metering of the emissions. As total S1 and S2 emissions in 2013 was 2,284, therefore we arrived at 0.3% through $(8/2,284)*100=0.3\%$
Other	3.5	Decrease	Gross Scope 1+2 emissions decreased by 80 tons related to the fact that an official full meter reading was carried out by ESB in October 2014 and it showed that the estimated readings for the previous 24 months done by the energy supplier accumulated an excess of consumption equivalent to 166,888 kWh. As total S1 and S2 emissions in 2013 was 2,284, therefore we arrived at 3.5% through $(80/2,284)*100=3.5\%$

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
0.0003	metric tonnes CO2e	unit total revenue	22.0	Decrease	Gross Scope 1+2 emissions decreased by 12.7% in absolute terms, as described in section CC12.1. The rest of the difference up to the 22.0% is related to an increase of 12.0% in the operating revenues, from 5.7 million euros to 6.4 million euros, as a consequence of a bigger amount of additional works carried out during 2014.

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
90.66	metric tonnes CO2e	FTE employee	4.7	Decrease	Gross Scope 1+2 emissions decreased by 12.7% in absolute terms, as described in section CC12.1. The number of FTE employees was reduced by 8.3%, from 24 to 22, as a consequence of the closure of the Control Room that took place in June 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
1.45	metric tonnes CO2e	Other: Million Vehicle km Travelled	13.3	Decrease	Gross Scope 1+2 emissions decreased by 12.7% in absolute terms, as described in section CC12.1. However, the number of Vehicle Km Travelled increased by 0.7% in 2014, from 1,370 to 1,380 million Vehicle Km Travelled. This increase was a result of an overall increase of traffic of 4% on the motorway that was offset by the hand-over of 8km of the motorway to the Authority on 27th September 2014.

Further Information

CC13.1

Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

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

CC13.1b

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

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

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	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, calculated	12	Ecoinvent 2014 data used to footprint salt and Defra 2014 factors used for Water footprint	100.00%	Use of Salt on Road for winter maintenance treatments and water for cleaning and sanitation
Capital goods	Not evaluated				
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Not evaluated				
Upstream transportation and distribution	Not evaluated				

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Waste generated in operations	Relevant, calculated	38	Defra 2014 factors applied to volumes provided by waste contractor	100.00%	Waste disposal and recycling
Business travel	Not relevant, explanation provided				Very small amount of business travel in the company
Employee commuting	Not relevant, explanation provided				Small number of employees, minimal impact on footprint.
Upstream leased assets	Not relevant, explanation provided				Minimum impact, only 2 vehicles of the entire fleet are leased.
Downstream transportation and distribution	Relevant, not yet calculated		3rd party contractors generate emissions in support of M50 motorway activities		We will review the opportunity to engage with our contractors on emissions reduction initiatives going forward.
Processing of sold products	Not relevant, explanation provided				No products sold, as the object of the company is the maintenance of a motorway
Use of sold products	Not evaluated				
End of life treatment of sold products	Not relevant, explanation provided				No products sold, as the object of the company is the maintenance of a motorway
Downstream leased assets	Not evaluated				
Franchises	Not relevant, explanation provided				No franchise
Investments	Not evaluated				
Other (upstream)	Not evaluated				
Other (downstream)	Not evaluated				

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/2015/60/53060/Climate Change 2015/Shared Documents/Attachments/CC14.2a/M50 Concession Verification CDP 2015.pdf	Page 1 / verification report	ISO14064-3	100

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
Purchased goods & services	Emissions reduction activities	1.8	Decrease	Gross Scope 3 emissions related to Salt and Water consumption decreased by 0.7 ton due to less salt used as a result of the introduction of the pre-wet system for winter maintenance since October 2014. As total S3 emissions in 2013 related to Salt and Water was 39, therefore we arrived at 1.8% through $(0.7/39)*100=1.8\%$.
Purchased goods & services	Change in physical operating conditions	65.1	Decrease	Gross Scope 3 emissions related to Salt and Water consumption decreased by 25.5 tons due to less salt used as a result of a milder winter season than previous year. As total S3 emissions in 2013 related to Salt and Water was 39, therefore we arrived at 65.1% through $(25.5/39)*100=65.1\%$.
Purchased goods & services	Change in boundary	2.3	Decrease	Gross Scope 3 emissions related to Salt and Water consumption decreased by 0.9 tons due to less salt used as a result of the hand-over of 8km of the motorway to the Authority that took place on April 2014, as stated in the PPP Contract. The hand-over represented the exclusion from the Scope 3 emissions of the salt associated with the winter maintenance treatment of that stretch of motorway. As total S3 emissions in 2013 related to Salt and Water was 39, therefore we arrived at 2.3% through $(0.9/39)*100=2.3\%$.
Waste generated in operations	Change in boundary	490.6	Increase	Gross Scope 3 emissions related to Waste increased by 31.3 tons due to the fact that in 2014 we have improved our emissions reporting system by including the management of landfill and recovery waste that were not considered in previous years. As total S3 emissions in 2013 related to Waste was 6.4, therefore we arrived at 490.6% through $(31.3/6.4)*100=490.6\%$.
Waste generated in operations	Change in output	12.1	Increase	Gross Scope 3 emissions related to Waste increased by 0.8 tons due to the increase in activity related to the additional works carried out in 2014, specially the sweeping, slot drain and gully cleaning of the M50 interchanges. As total S3 emissions in 2013 related to Waste was 6.4, therefore we arrived at 12.1% through $(0.8/6.4)*100=12.1\%$.

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 customers

CC14.4a**Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success**

M50CL works very closely with our client, the National Roads Authority (NRA), to develop strategies to reduce the carbon emissions of the M50 motorway. We meet on a monthly basis and as part of the agenda we review our environmental performance and discuss ways to improve our emissions performance. As a result of these meetings, specific collaborative projects may be identified and, in that case, a project team with specialists from both parties would be set up to coordinate the analysis and implementation of the project. An example of this approach is the project that was launched in 2014 to implement a policy of varying lighting levels in the M50 to match the hourly traffic volume. The project is a result of a joint effort to reduce the streetlighting consumption in the entire motorway. For that reason, the scope of the project not only includes those sections of the motorway which are part of the M50 Concession Ltd's contract, but also other stretches that are being operated by the NRA through separate contracts. Other examples of this approach are the changing of the M50 motorway winter maintenance strategy from a dry salt gritting process to a pre-wet system that took place in 2014 and the analysis of a tool developed by the CEREAL project to incorporate carbon emissions analysis into the M50 long term pavement strategy.

M50 Concession Ltd. operates the M50 motorway through a 35-year term PPP (Public Private Partnership) Contract. As such, the Company understands that the success of the project essentially depends on establishing a long term, collaborative and transparent relationship with our Grantor, the NRA. The structure of the PPP Contract requires the agreement and support of both parties, the concessionaire and the Grantor, to implement any significant initiative in relation to carbon emissions and climate change, as they would usually represent operation variations to the original Contract. For that reason, M50 Concession Ltd. prioritizes the engagement with the NRA over any other stakeholder. However, the Company recognizes the relevance of other members of our value chain in relation to GHG emissions and climate change strategies, specially our suppliers and contractors. For that reason, we will review the opportunity to engage with them in the future. The grade of success of our engagement is measured through the actual improvement of our carbon footprint as a result of specific reduction initiatives carried out in conjunction with the NRA and the rest of our partners. As part of our internal process to define the emissions reduction target for the year we would take into consideration the implementation of a number of collaborative projects with our partners. 2014 was our first year measuring our emissions and responding to CDP but no emissions reduction target was set up. However, a target has been already set up for 2015, consisting of reducing carbon emissions by 14% measured in absolute terms in relation to 2014. To set up this target, it was considered that part of the savings will depend on the successful implementation of two collaborative projects with the NRA. Specifically, the target considered emissions savings equivalent to 5% of the streetlighting consumption as a result of the dimming initiative and to 16% of the salt consumption as a result of the pre-wet project. At the end of the year, we will compare the actual savings versus the expected ones for each collaborative project and the grade of success of our engagement will be calculated as the aggregate percentage of completion for all the projects.

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
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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
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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
Borja Santamaria Mariscal	General Manager	Chief Executive Officer (CEO)

Further Information

CDP 2015 Climate Change 2015 Information Request