

# Morgan Sindall Group plc - Climate Change 2019

C0. Introduction

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C0.1

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## **(C0.1) Give a general description and introduction to your organization.**

Morgan Sindall Group plc is a leading UK construction and regeneration group operating through six divisions (set out below). The Group employs circa 6,600 people.

### **Construction**

#### **Construction & Infrastructure**

Provides infrastructure services in the highways, rail, aviation, energy, water and nuclear sectors, including tunnel design and construction services in education, healthcare, defence, commercial, industrial, leisure and retail. BakerHicks offers a multidisciplinary design and engineering consultancy services.

#### **Fit Out**

Overbury specialises in fit out and refurbishment in commercial, central and local government offices, retail banking and further education. Morgan Lovell provides office interior design and build services direct to occupiers.

#### **Property Services**

Provides response and planned maintenance for social housing and the wider public sector.

### **Regeneration**

#### **Partnership Housing**

Lovell delivers housing through mixed-tenure and contracting activities. Mixed tenure includes building and developing home for open market sale, affordable rent, private renting or shared ownership in partnership with local authorities and housing associations. Contracting includes the design and build of new home and planned maintenance and refurbishment for clients who are mainly local authorities, housing associations and the Defence Infrastructure Organisation.

#### **Urban Regeneration**

Works with landowners and public sector partners to transform the urban landscape through the development of multi-phase sites and mixed-use regeneration, including residential, commercial, retail and leisure.

#### **Investments**

Provides the Group with construction and regeneration opportunities through long term strategic partnerships to develop under-utilised public land across multiple sites.

## **C0.2**

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**(C0.2) State the start and end date of the year for which you are reporting data.**

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2018	December 31 2018	No	<Not Applicable>

**C0.3**

**(C0.3) Select the countries/regions for which you will be supplying data.**

United Kingdom of Great Britain and Northern Ireland

**C0.4**

**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

GBP

**C0.5**

**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.**

Operational control

**C1. Governance**

**C1.1**

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

**C1.1a**

**(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.**

Position of individual(s)	Please explain
Board-level committee	The Board's HSE committee assists the Board in fulfilling its oversight responsibilities in relation to environmental matters and makes recommendations to the Board for any changes considered necessary. The committee is responsible for monitoring the Group's strategy and regulatory environmental obligations including climate change and carbon emissions reduction. The committee is made up of one non-executive director (the chair), the Group's commercial director (GCD) and company secretary. The chair of the Board also attends each meeting. The committee meets 4 times per year and reports to the Board after each meeting. The Group's director of sustainability and procurement (DSP) reports to the GCD and attends one meeting of the HSE committee each year to review the Group's responsible business strategy which includes environmental performance. The DSP chairs the climate action group (CAG) which is responsible for setting the Group's environmental strategy including climate change.

C1.1b

(C1.1b) Provide further details on the board’s oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Sporadic - as important matters arise	Reviewing and guiding risk management policies Reviewing and guiding business plans Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	The Board's HSE committee is responsible for monitoring the Group's environmental strategy, which includes its strategy in respect of climate change. The HSE committee, as part of its annual agenda of activities, regularly reviews the Group's performance against the Group's goals and targets for climate-related issues. The Group's Carbon Action group in conjunction with the director of sustainability and procurement (DSP) sets the Group's environmental strategy which includes targets and objectives for addressing climate change and carbon reduction. The Group has had a target of reducing its carbon emissions by 5% year on year against our 2010 baseline in place for the last 8 years. In 2017, the Group established science-based targets which received approval from the Science Based Target Initiative working group in March 2018. The Group will report its performance against these science based targets as part of its annual reporting for 2019. The DSP provides an annual update of activities undertaken including those in relation to climate change to the Board's HSE Committee. The chair of the HSE committee updates the Board after each meeting of issues covered at their quarterly meetings. The Group Board has overall responsibility for ensuring that the Group as a whole can meet all of its obligations and commitments including those related to climate change.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Other, please specify (Director Sustainability and Procurement)	Both assessing and managing climate-related risks and opportunities	Annually

C1.2a

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

The Board has appointed the director sustainability and procurement (DSP) to have overall responsibility for delivering and determining the Group's approach to Climate Change. This includes setting targets, including science-based targets, for reducing the Group's impact on climate related activities as well as monitoring performance against the same. In setting the Group's environmental strategy, full account of climate-related risks and opportunities are taken.

The DSP ensures that he is aware of current legislation, regulation and best practice in respect of climate change. He also has a deep understanding of how best the Group can act to ensure it meets its obligations and ensure that it delivers against any commitments made.

The DSP meets with the Board's HSE committee annually and also attends one meeting per year of the Group's Management Team (the executive team below Board level), which is made up of the two executive directors, the divisional MDs, the Group's commercial director and the company secretary. The purpose of these meetings is to report on progress against strategy as well as to advise on changes to regulatory/customer requirements and best practice that may impact the Group's climate related activities.

The DSP also sits on the Group's risk management committee which consists of the heads of key Group functions, including legal, company secretarial, IT, finance, internal audit and tax and treasury. This committee meets twice per year to review the Group's risk and opportunities.

### C1.3

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**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

Yes

### C1.3a

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**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).**

**Who is entitled to benefit from these incentives?**

Other, please specify (All drivers of company cars)

**Types of incentives**

Monetary reward

**Activity incentivized**

Emissions reduction target

**Comment**

The metric used is in relation to average fleet CO2. The Group's Construction and Infrastructure division's largest environmental impact is through fuel used in its company vehicles and car fleet - as confirmed through the Achilles CEMARS report, attached. To reduce these emissions, the division has introduced an incentive scheme that will assist the company in making a positive contribution to the reduction of carbon emissions. Incentives are produced as part of the Divisions company car selection process based on base model CO2 figures and deviation from the same. As stated in the company car policy: "Each grade has a maximum CO2 emission level attached to it. To encourage a reduction in CO2 emissions, if a model is chosen which has CO2 emissions below that set level for their grade, the driver receives £1 per calendar month for each gram of CO2 saved. These amounts will be displayed as a fixed 'green' saving on the monthly payslip". This is documented in the HR Policy (HR POL 21 HR Policy - Company Car - Rev 15 Feb 17). In addition to this, commercial fleet driver performance is managed through a tracker system. The best performing drivers each month are identified and the best performing driver each quarter receives a £150 cash prize.

**Who is entitled to benefit from these incentives?**

Other, please specify (Director sustainability and procurement (DSP))

**Types of incentives**

Monetary reward

**Activity incentivized**

Emissions reduction target

**Comment**

The Group director of sustainability and procurement (DSP) has responsibility for setting the strategy, engaging with all Group divisions to ensure that the strategy is implemented and accurately reported. The strategy includes setting minimum standards and setting targets for improvement for short term and longer term goals reporting directly to the GCD. The DSP reports annually to the Board's HSE committee and the Group's management team on progress against targets. The role is performance incentivised and a part of the remuneration is dependent upon achieving the set standards and targets in terms of carbon reduction and minimising the impact of the energy used in completing our projects.

**C2. Risks and opportunities**

**C2.1**

**(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.**

	From (years)	To (years)	Comment
Short-term	0	1	
Medium-term	1	3	
Long-term	3	6	

**C2.2**

**(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.**

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

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**(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.**

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	3 to 6 years	Our planning cycle is 5 years. The Board is responsible for setting the Group's risk appetite and risk management and assesses the principal risks to the Group that threaten our business model and performance. Each division identifies the risks facing its business and takes measures to mitigate the impacts. Twice a year each division carries out a detailed risk review, recording significant matters in its risk register. The divisional risk registers are reviewed and collated by the Group's head of audit and assurance, who refers to them when preparing the Group risk register. This approach ensures that principal risks and controls throughout the Group are under regular review at all levels. The Group also has a risk committee that meets twice a year and assists the Board and audit committee, ensuring that both inherent and emerging risks across the business are properly identified and managed. The Auditors in their Audit report determine the Group's materiality at £4.0m.

C2.2b

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## (C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

Company level:

The Group has a comprehensive risk management process which includes the identification of the Group's principal risks: see Annual Report 2018, pp. 22-31 (attached).

"The Board is responsible for risk management and assesses the principal risks to the Group that threaten our business model and performance. For detailed information on our risk management and internal control governance" and: "each division identifies the risks facing its business and takes measures to mitigate the impacts."

At Group level risk management processes are:

- The Group and divisional boards undertake comprehensive annual business planning processes to identify objectives, set strategies considering the risk appetite set by the Board.
- Executive directors meet with the divisions regularly throughout the year, enabling the executive directors to maintain control over the material aspects of strategic, financial, operational and risk issues.
- Twice yearly each division completes a detailed risk review. Risk registers document the significant risks and proposed actions for mitigation.
- The Group risk committee meets two times a year, to assist the Board in assessing and monitoring risk management across the Group.
- An annual internal audit plan, approved by the audit committee and covering both project and corporate level risks, is developed by focusing upon the principal risks identified. The internal audit team reports regularly to the Board.

Substantive financial impact: The Auditors in their Audit report determine the Group's materiality at £4.0m (see 2018 Annual Report for further information).

Asset level:

Construction and Infrastructure division, as an example, applies COM PRO2 Risk Management Standard, an established process to assess risk at Pre-construction and Construction phases of projects. Risk is assessed at the start of any project, revisited on commencement of the project and regularly during the project. Processes are embedded within each division's quality (ISO 9001) environment (ISO 14001) and health and safety (OHSAS 18001) management systems.

The Group has a specific Risk Management Policy that sets out the following key principles for prioritising risks:

- The public, employees and the environment are safe from any potential hazards inherent in our operations.
- The potential for loss or damage to assets, or financial loss to the Group and its key stakeholders, is minimised by recognising and controlling risks to our financial and operational stability, or those which could adversely affect our reputation; and
- Opportunities to improve on existing plans and targets are identified and exploited without compromising business objectives.

To ensure that we continue to focus on the most important and issues to our stakeholders, we carry out a materiality review every two years. In 2018, the Group completed a comprehensive materiality assessment and ranking exercise for all responsible business risks, including climate change, to help validate and further our understanding of their perceived priority to our stakeholders (including employees), and determine significant risks. The survey was completed by 2,000 employees and 269 external stakeholders, a 20% higher response rate than the previous survey in 2016. The combined responses are ranked into a priority order. This output provides an external view on the business environment, which assists the Group in setting strategic priorities.

## C2.2c

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**(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?**

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Government regulations are a key driver of market activities in the UK construction sector, and climate-related developments. Our climate-related risk assessments cover current regulations including the CRC-Energy Efficiency Scheme and ESOS, the Energy Saving Opportunities Scheme. The financial impact of these regulations are assessed in our risk assessment and management responses put in place. We are monitoring and waiting for government to make a final decision on the replacement of the CRC. For the next phase of ESOS we have a committed plan in place. We comply with regulations at a municipal level, including congestion charging for clean air.
Emerging regulation	Relevant, always included	Our climate-related risk assessments anticipate new regulations. For example, we are monitoring and waiting for government to make a final decision on the replacement of the CRC-Energy Efficiency Scheme, including new reporting proposals and developments in the UK carbon floor price. The potential financial impact of these regulations are assessed in our risk assessments and management responses are put in place. We are also monitoring and responding to emerging regulations for vehicle emissions in cities. For example, for construction of the Thames Tideway in London, we assess impacts and requirements for lorries and new plant, which may not be warranted initially by manufacturers. We are members, and on the management group, of the London Mayor's Climate Partnership, which is helping to shape new regulations and activities in the capital.
Technology	Relevant, always included	Our risk assessments consider current and future technology developments. For example, new power trains for vehicles; Renewables on site, solar and other alternative fuels. EV Chargers to all new offices and site offices. Mobile EV chargers. Stand down/smaller capacity generators. Telemetry - septic tank - tells suppliers when to empty it. Campaigns to reduce carbon on standard site set-up. We lead the Highways England Plant Group, and head up Supply Chain Sustainability Plant School - most major fuel and plant manufacturers are involved. Plant Desk - is an IT platform we set up to make use of plant more efficiently. ITAD is looking at utilisation on site. Our Carbon Group helps relate climate issues to technical processes.
Legal	Relevant, always included	Linking legal compliance to climate-related issues requires wider surveillance, as well as complying to specific legal requirements. For example, we draw on the wider context of climate issues from Supply chain schools and materiality assessments from stakeholders. Legislation also affects project sites, and our overriding requirement when addressing climate-related issues is to ensure we are meeting project specifications. As a developer (Muse Division), risk is also defined in section 106 requirements - which we have to comply with.
Market	Relevant, always included	The potential for changing market requirements are a core part of risk assessments. The UK construction industry, and particular Government funded projects, are CAPEX driven, which means we are often unable to influence decisions on lower carbon solutions, which would reduce operating expenditure. There are some exceptions, and customers such as Highways England, for example, have moved to more OPEX driven projects, which help make the case for lower carbon solutions.
Reputation	Relevant, always included	Our reputation as a supplier with strong sustainability credentials, and provider of low-carbon solutions, is a key differentiator for Morgan Sindall Group. Sustainability credentials are weighted strongly on many construction project RFQs, and our risk and opportunity assessments consider this as a significant financial impact on the business. A more specific example can be provided from our Construction and Infrastructure division: In the Thames Tideway Tunnel West contract awarded, where the sustainability questions accounted for 7% of the awarded contract submission, where evidence of carbon management and reduction performance was necessary.
Acute physical	Relevant, always included	Acute physical risks, such as on-site flooding or power interruption from storms are incorporated into risk management plans at construction project sites. For example, these need to address power interruption demand management on site.
Chronic physical	Relevant, always included	Chronic physical climate changes could impact significantly on project site construction time plans. For example, it is not possible to pour concrete at less than 5C. Adding water to concrete on site is also not possible, if significantly higher temperatures impact adversely on site vehicles delivering pre-mixed concrete to site, and delayed in traffic. Rising temperatures and drought conditions also create increased fire risk. There is already a comprehensive risk assessment on every project, which follows a set template to cover these types of issues. Site environmental risk assessments also consider chronic physical changes. Climate-related physical changes are also raising potential cost issues on our work - potentially affecting lighting and electricity charging.
Upstream	Relevant, always included	Potential upstream issues are addressed, for example, through Supply Chain School -training, and Fleet Operators Recognition Schemes (FORS) and Construction Logistics and Cyclist Safety (CLOCS) requirements. Examples of how climate-related activities have impacted our business from an upstream perspective, include the higher cost of upstream power in the UK; and the Drax power station moving over to biofuels - leading in 2018 to a 30% price increase in home grown timber, which we source, because a significant portion is being diverted to Drax to reduce GHG emissions.
Downstream	Relevant, always included	We try continuously to make our clients and project partners aware of operational savings through value engineering and specifications. For example, we track mileage on brick deliveries, and use a Matrix of bricks with brick manufacturer locations, to influence from where Architects specify the sourcing of bricks for projects.

**C2.2d**

## **(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.**

Company level:

The Group has a comprehensive risk management process which includes the identification of the Group's principal risks: see Group Annual Report 2018, pp. 22-31 (attached).

"The Board is responsible for risk management and assesses the principal risks to the Group that threaten our business model and performance. For detailed information on our risk management and internal control governance" and: "each division identifies the risks facing its business and takes measures to mitigate the impacts."

At Group level risk management processes are:

- The Group and divisional boards undertake comprehensive annual business planning processes to identify objectives, set strategies considering the risk appetite set by the Board.
- Executive directors meet with the divisions regularly throughout the year, enabling the executive directors to maintain control over the material aspects of strategic, financial, operational and risk issues.
- Twice yearly each division completes a detailed risk review. Risk registers document the significant risks and proposed actions for mitigation.
- The Group risk committee meets two times a year, to assist the Board in assessing and monitoring risk management across the Group.
- An annual internal audit plan, approved by the audit committee and covering both project and corporate level risks, is developed by focusing upon the principal risks identified. The internal audit team reports regularly to the Board.

Asset level:

Construction and Infrastructure division, as an example, applies COM PRO2 Risk Management Standard, an established process to assess risk at Pre-construction and Construction phases of projects. Risk is assessed at the start of any project, revisited on commencement of the project and regularly during the project. Processes are embedded within each division's quality (ISO 9001) environment (ISO 14001) and health and safety (OHSAS 18001) management systems.

The Group has a specific Risk Management Policy that sets out the following key principles for prioritizing risks:

- The public, employees and the environment are safe from any potential hazards inherent in our operations.
- The potential for loss or damage to assets, or financial loss to the Group and its key stakeholders, is minimised by recognising and controlling risks to our financial and operational stability, or those which could adversely affect our reputation; and
- Opportunities to improve on existing plans and targets are identified and exploited without compromising business objectives.

In 2018, the Group completed a comprehensive materiality assessment and ranking exercise for all sustainability risks, including climate change, to help validate and further our understanding of their perceived priority to our stakeholders (including employees). The survey was completed by 2,000 employees and 269 external stakeholders, a 20% higher response rate than the previous survey in 2016. The combined responses are ranked into a priority order to ensure that we continue to focus on the most important issues to our stakeholders, we carry out a materiality review every three years. This output provides an external view on the business environment, which assists the Group in setting strategic priorities.

## **C2.3**

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### **(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

## **C2.3a**

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**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Risk 1

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Policy and legal: Increased pricing of GHG emissions

**Type of financial impact**

<Not Applicable>

**Company- specific description**

As a UK company and participant of the CRC Energy Efficiency Scheme, we must comply with these reporting requirements. Description: Major risk is that associated with data collection and compliance with reporting requirements across our diversified business. Impact: For the Group this risk requires the implementation of robust data collection and management methodologies. It is anticipated that the business will be audited by the regulator, in due course, with risk associated with ensuring regulatory compliance.

**Time horizon**

Long-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

100000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Direct levy plus management costs. The process has been continuously reviewed – Energy Source – Data gathering – Sense Checking – 3rd party Audit – Governance sign off via the Company secretariat and then transparently being reported.

**Management method**

We have significantly improved our data collection process and included external contributions and additional checks, energy via a single group wide broker, compliance and sense checking via a third party carbon specialist, and the appointment of a Group Data Analyst to manage the process. Reporting against CRC obligations is mandatory. The risks are being managed through three key stages: #1: Ensuring our data is robust. One way we are doing this is by having our data verified and reporting requirements externally assessed through engagement of an external verification company, Achilles, to confirm data collection and reporting metrics are correct. This provides the business with the certainty that its numbers are correct, as well as partially fulfilling the requirement for internal audit. #2: Improving data collection to focus efforts, for example: the Group is currently transitioning its utility management to an energy broker to assist with the management of data. The broker is acting as a direct intermediary between the utility providers and the Group, both for checking and validation purposes as well as the production of management information enabling focussed reduction activities. #3 Establishment of clear processes and procedures as part of the Group's

**Cost of management**

100000

**Comment**

Estimate is to an order of magnitude.

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**Identifier**

Risk 2

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Policy and legal: Enhanced emissions-reporting obligations

**Type of financial impact**

<Not Applicable>

**Company- specific description**

GHG mandatory reporting obligations. Description: Major risk is that associated with data collection and compliance with reporting requirements across our diversified business. Impact: For the Group this risk requires the implementation of robust data collection and management methodologies. It is anticipated that the business will be audited by the regulator, in due course, with risk associated with ensuring regulatory compliance.

**Time horizon**

Long-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

5000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Minimum of £5000 fines for erroneous reporting, up to unlimited fines as well as reputational impact and risk of civil action from shareholders. the process has been continuously reviewed – Energy Source – Data gathering – Sense Checking – 3rd party Audit – Governance sign off via the Company secretariat and then transparently being reported

**Management method**

We have significantly improved our data collection process and included external contributions and additional checks, energy via a single group wide broker, compliance and sense checking via a third party carbon specialist, and the appointment of a Group Data Analyst to manage the process. The risks are being managed through three key stages: #1: Data verification and reporting requirements are externally assessed through engagement of an external verification company (Achilles) to confirm data collection and reporting metrics are correct. This provided the business with the certainty that its numbers are correct, as well as partially fulfilling the requirement for internal audit. #2 The Group is transitioning its utility management to an energy broker to assist with the management of data. The broker is acting as a direct intermediary between the utility providers and the Group, both for checking and validation purposes as well as the production of management information enabling focussed reduction activities. #3 Establishment of clear processes and procedures as part of the Group's management systems to ensure that appropriate management controls are put in place.

**Cost of management**

10000

**Comment**

Estimate is to an order of magnitude.

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**Identifier**

Risk 3

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Policy and legal: Increased pricing of GHG emissions

**Type of financial impact**

<Not Applicable>

**Company- specific description**

Category: energy regulations Description Introduction of legislation requiring the identification and audit of energy efficiency of assets as well as reporting requirements. Impact: Supplemental data handling and legal reporting requirements

**Time horizon**

Short-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

10000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Some additional consultancy costs anticipated in completing verification exercise as well as additional staff costs. Estimated at £10,000. The process has been continuously reviewed – Energy Source – Data gathering – Sense Checking – 3rd party Audit – Governance sign off via the Company secretariat and then transparently being reported

**Management method**

We have significantly improved our data collection process and included external contributions and additional checks, energy via a single group wide broker, compliance and sense checking via a third party carbon specialist, and the appointment of a Group Data Analyst to manage the process. The risks are being managed through three key stages: #1: Data verification and reporting requirements are externally assessed through engagement of an external verification company (Achilles) to confirm data collection and reporting metrics are correct. This provided the business with the certainty that its numbers are correct, as well as partially fulfilling the requirement for internal audit. #2 The Group is transitioning its utility management to an energy broker to assist with the management of data. The broker is acting as a direct intermediary between the utility providers and the Group, both for checking and validation purposes as well as the production of management information enabling focussed reduction activities. #3 Establishment of clear processes and procedures as part of the Group's management systems to ensure that appropriate management controls are put in place.

**Cost of management**

10000

**Comment**

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**Identifier**

Risk 4

**Where in the value chain does the risk driver occur?**

Customer

**Risk type**

Transition risk

**Primary climate-related risk driver**

Reputation: Increased stakeholder concern or negative stakeholder feedback

**Type of financial impact**

<Not Applicable>

### Company- specific description

Morgan Sindall Group, through its divisions, work for numerous private and public sector clients, who have differing sustainability priorities. It is expected that without clear leadership and action around important sustainability issues, this would lead to reduced market share, through poor tender success performance, affecting turnover and profit; the corollary of which would see redundancies. The sustainability component of a tender award can account for up to 40% of the submission. Our Construction and Infrastructure division are committed via projects such as Thames Tideway, Highways England Road Schemes, HS2, Sellafield Nuclear Establishment, to name but a few, requiring us to make clear commitments to reduce both operational and asset reduction targets and set ambitious targets that are continuously monitored and progressed.

### Time horizon

Medium-term

### Likelihood

Very likely

### Magnitude of impact

High

### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

### Potential financial impact figure (currency)

139000000

### Potential financial impact figure – minimum (currency)

<Not Applicable>

### Potential financial impact figure – maximum (currency)

<Not Applicable>

### Explanation of financial impact figure

The financial impact of not addressing the challenges of sustainability from a work-winning perspective cannot be over-stressed. Assuming sustainability accounts for 5% of all tenders: 5% of £2,972m (Group turnover in 2018) = £148.6m. A more specific example can be provided from our Construction and Infrastructure division: In the Thames Tideway Tunnel West contract awarded, where the value of the contract is £416m (approx). The Sustainability questions accounted for 7% of the awarded contract submission, where evidence of carbon management and reduction performance was necessary. 7% of £416m = £29.12m.

### Management method

The management method employed included: 1) Clear leadership and strategic direction: This ensures appropriate resource is deployed to achieve the delivery against the Group's Total Commitments. 2) Action plans: to ensure the delivery of strategic objectives at project level. 3) Communication strategy to engage employees and interested parties - Group produces regular sustainability communications in order to promote awareness, share good practice and report performance. The Annual Report 2018 - publicly available communication on Website; - 2018 Responsible Business Report that is on the Group's Website. In addition, each division produces its own sustainability communications. 4) Sustainability focus days: In Construction and Infrastructure in 2015, there were 4 separate focus days (one each on People, Planet, Profit and Legacy), aimed at engaging employees and supply chain in practical site actions to reduce energy, waste, water and carbon emissions.

### Cost of management

0

### Comment

Sunk cost within normal staff costs, so no additional costs.

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### Identifier

Risk 5

### Where in the value chain does the risk driver occur?

Supply chain

### Risk type

Physical risk

### Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

### Type of financial impact

Reduced revenue from decreased production capacity (e.g., delayed planning approvals, supply chain interruptions)

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**Company- specific description**

The risk of disruption to the supply of materials and equipment to construction sites through adverse/severe weather conditions across the supply chain from cradle to gate. This would potentially reduce and/or disrupt the Group's ability to deliver projects on time.

**Time horizon**

Medium-term

**Likelihood**

More likely than not

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

10000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

It is not possible to accurately quantify the likely impact as this would be dependent on project by project basis and extent of impact. Minimum likely impact of order £10,000+

**Management method**

Several management methods are used to mitigate impacts: 1) Direct liaison with supply chain and regular dialogue on supply capability, mindful of likely weather impacts and to ensure supply capability. For example, Morgan Sindall Group was one of 7 founder members of the Supply Chain Sustainability School, a virtual platform that's free for the construction supply chain to make use of. This is the main management method we use to train the supply chain in sustainability and raise awareness of emerging issues and megatrends. 2) Contractual agreements and long-standing relationship with supply chain partners to mitigate risks of disruption 3) Contingency planning for projects, taking account of adverse weather impact and planning for mitigation.

**Cost of management**

0

**Comment**

Sunk cost within normal management costs, so no additional costs.

---

**Identifier**

Risk 6

**Where in the value chain does the risk driver occur?**

Supply chain

**Risk type**

Physical risk

**Primary climate-related risk driver**

Acute: Increased severity of extreme weather events such as cyclones and floods

**Type of financial impact**

Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)

**Company- specific description**

The risk of spikes in cost of raw materials through the disruption to supply and subsequent demand side pressures. This would potentially reduce and/or disrupt the Group's ability to deliver projects to budget

**Time horizon**

Medium-term

**Likelihood**

More likely than not

**Magnitude of impact**

---

Medium-low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

10000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

It is not possible to accurately quantify the likely impact as this would be dependent on project by project basis and extent of impact. Minimum likely impact of order £10,000+

**Management method**

Several management methods are used to mitigate potential impacts: 1) Direct liaison with supply chain and regular dialogue on supply capability mindful of likely supply impacts. For example, Morgan Sindall Group was one of 7 founder members of the Supply Chain Sustainability School, a virtual platform that's free for the construction supply chain to make use of. This is the main management method we use to train the supply chain in sustainability and raise awareness of emerging issues and megatrends. 2) Contractual agreements and long-standing relationship with supply chain partners to mitigate risks associated with potential cost impact 3) Maintaining a watching brief on commodity prices with forecast impacts on projects 4) Continued investment and promotion of the Supply Chain Sustainability School.

**Cost of management**

0

**Comment**

Sunk cost within normal management costs, so no additional costs.

---

**Identifier**

Risk 7

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Physical risk

**Primary climate-related risk driver**

Acute: Increased severity of extreme weather events such as cyclones and floods

**Type of financial impact**

Reduced revenue from decreased production capacity (e.g., delayed planning approvals, supply chain interruptions)

**Company- specific description**

The risk of disruption to operations in the advent of an adverse/severe weather event e.g. flooding, droughts, which could lead to suspension of works on the Group's site or projects

**Time horizon**

Short-term

**Likelihood**

More likely than not

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

10000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

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**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

It is not possible to accurately quantify the likely impact as this would be dependent on project by project basis and extent of impact. Minimum likely impact of order £10,000+

**Management method**

Several management methods are used to mitigate potential impacts: 1) Direct liaison with customer on programme delivery and impact 2) Local risk assessments with focus on weather conditions and required changes to programme of works, delivery, etc. at a local level. 3) Contingency planning for projects, taking account of adverse weather impact and planning for mitigation.

**Cost of management**

0

**Comment**

Sunk cost within normal management costs, so no additional costs.

---

**Identifier**

Risk 8

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Physical risk

**Primary climate-related risk driver**

Chronic: Changes in precipitation patterns and extreme variability in weather patterns

**Type of financial impact**

Reduced revenues from lower sales/output

**Company- specific description**

The risk of increased incidence of flood, drought, high wind, etc. on our projects. This could lead to direct damage to the Group's assets as well as those we are constructing.

**Time horizon**

Short-term

**Likelihood**

Likely

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

50000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Financial impact would be through increased insurance premiums as well as impact of paying insurance excesses, of the order of £50,000 per project or office.

**Management method**

Several management methods are used to mitigate potential impacts: 1) Direct liaison with customer on programme delivery and impact 2) Local risk assessments with focus on weather conditions and required changes to programme of works, delivery, etc. at a local level. 3) Contingency planning for projects, taking account of adverse weather impact and planning for mitigation. For example, de-watering installation at EAC Drakelow. This managed water levels on a site with high groundwater, susceptible to weather conditions, reducing risk and allowing the project to be completed on time.

**Cost of management**

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**Comment**

Sunk cost within normal staff costs, so no additional costs.

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## C2.4

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

## C2.4a

**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Opp1

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Type of financial impact**

Increased revenue through demand for lower emissions products and services

**Company-specific description**

Requirements to address energy efficiency and creation of renewable energy alternatives. The main impact on the Group is that anticipated legislation will drive requirements to ensure that engineering capability (e.g. staff training, understanding of products and services, etc.) can be delivered.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

139000000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Potential increased cost of construction while technology and solutions prices stabilise in the market. Estimated impact for construction is an additional 10% on capital cost comparing 'standard housing' with improved efficiency housing (CfSH Level 3 vs CFSh level 4). However, this also presents the consumer with very much reduced energy and utility costs. Assuming provision of low emission products and services accounts for 5% of all tenders: 5% of £2,972m (Group turnover in 2018) = £148.6m.

### Strategy to realize opportunity

Several management methods are used to monitor this opportunity: 1) Legislative review: As part of the divisions management systems (ISO 9001, ISO 14001 and OHSAS 18801) there is a requirement to monitor and assess the impact of legislation on operations. This is completed on a forward-looking basis, taking account of Government consultation and Industry developments, thereby anticipating future changes and opportunity for the Group. 2) Strategic planning: As an annual exercise, continually reviewed during the course of the year, the Group's leadership teams review the Groups strategy and potential for growth, new markets, and market entry as part its normal strategic management process and cycle.

### Cost to realize opportunity

0

### Comment

Inclusive of current management costs, and therefore no immediate change in cost of management

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### Identifier

Opp2

### Where in the value chain does the opportunity occur?

Direct operations

### Opportunity type

Resource efficiency

### Primary climate-related opportunity driver

Use of recycling

### Type of financial impact

Reduced operating costs (e.g., through efficiency gains and cost reductions)

### Company-specific description

Changes to the approach in handling waste materials. Diverting waste from landfill has a positive impact on our ability to win business, based on the Group's waste minimisation plans and ability to deliver projects where 100% of waste is diverted from landfill. Benefit in reputational enhancement, attractiveness to customers and reduced operating cost. Diverting waste from landfill by waste avoidance or material reuse reduces operational costs and thereby increases the profit margin of a project.

### Time horizon

Current

### Likelihood

Likely

### Magnitude of impact

Medium

### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

### Potential financial impact figure (currency)

200000

### Potential financial impact figure – minimum (currency)

<Not Applicable>

### Potential financial impact figure – maximum (currency)

<Not Applicable>

### Explanation of financial impact figure

Illustrative project financial impact. Cost of waste to projects is estimated at typically 2% of project costs. Reducing waste can then therefore have a positive contribution and impact on operating costs to the order of 1 - 2%. For a project of c£10 million, typical waste cost impact is approximately £200,000.

### Strategy to realize opportunity

The management of waste on projects is an embedded process as part of the ISO 14001 systems across the Group. Specifically, application of waste hierarchy and methodology for avoidance of waste through design, prevention, reuse, recycling, recovery, etc. is the key management method. In 2018, 95% of Group waste was diverted from Landfill. The launch of the BREEAM Refurbishment and Fit Out scheme in late 2014 and SKA for Higher Education (SKA HE) in May 2016 has pushed projects to find innovative ways of reducing waste and encouraged reuse on projects. Overbury's project at LSE Life achieved the first SKA HE Silver rating with a 97% recycling rate with much of the furniture stripped out reused through the university network. Morgan Lovell worked with a carbon profiling specialist on their project for the UK Green Building Council to ensure that opportunities to reuse,

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recycling and responsible sourcing were maximized. The project achieved an embodied carbon footprint of 139 kgCO<sub>2</sub>/m<sup>2</sup> - 22% below a comparable "standard" fit-out and the lowest ever recorded in the UK (SCP database, WRAP database) The project achieved: 99.4% of construction waste diverted from landfill; 98% of original fixtures and finishes reused or repurposed; 48% decrease in carbon emissions from lighting.

**Cost to realize opportunity**

0

**Comment**

Inclusive of current management costs, and therefore no immediate change in cost of management

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**Identifier**

Opp3

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Energy source

**Primary climate-related opportunity driver**

Shift toward decentralized energy generation

**Type of financial impact**

Returns on investment in low-emission technology

**Company-specific description**

Options for energy from waste. A general drive from customers to utilise alternative forms of heating and power within buildings or assets, thereby minimising potential exposure to energy cost increases. This could potentially provide the opportunity to provide extended services to customers through design and construction of such schemes.

**Time horizon**

Current

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

3000000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Potential for increased revenue. UK Government has previously reported an approximate investment of £31bn of private sector investment in renewable energy. 0.1% of this would be £3m.

**Strategy to realize opportunity**

The main management method here is to maintain a watching brief as part of the normal strategic planning annual exercise, continually reviewed during the course of the year, the Group's leadership teams review the Groups strategy and potential for growth, new markets, and market entry as part its normal strategic management process and cycle.

**Cost to realize opportunity**

0

**Comment**

Inclusive of current management costs, and therefore no immediate change in cost of management

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**Identifier**

Opp4

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Type of financial impact**

Increased revenue through demand for lower emissions products and services

**Company-specific description**

Increasing popularity and acceptance of ratings systems such as CEEQUAL, BREEAM, LEED, Ska, etc. This provides the Group with opportunities associated with the increasing requirement from clients and government for more energy efficient buildings. It encourages innovative solutions to carbon reductions.

**Time horizon**

Current

**Likelihood**

Virtually certain

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

400000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Illustrative project financial impact. Potential increased operating cost and/or recovery of costs from customers setting higher standards. Typical reported impact of the application of BREEAM standard ranges from of less than 2% impact on capital cost. According to the BRE report - Delivering sustainable Buildings ( BRE and Cyril Sweet: Delivering Sustainable Buildings. BRE IHS BRE Press, 2014) including energy efficiency measures as part of an overall approach to BREEAM excellent can add up to 2% to capital costs, and therefore, for example an office with capital cost of £20 million, this would escalate to an additional £400k capital cost.

**Strategy to realize opportunity**

The main management method here is to maintain a watching brief as part of the normal strategic planning annual exercise, continually reviewed during the course of the year, the Group's leadership teams review the Groups strategy and potential for growth, new markets, and market entry as part its normal strategic management process and cycle. Opportunity uptake would be through use of in-house specialists and external consultants to help with design process.

**Cost to realize opportunity**

0

**Comment**

Inclusive of current management costs, and therefore no immediate change in cost of management Potential additional consultant costs on a project by project basis.

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**Identifier**

Opp5

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Type of financial impact**

Increased revenue through demand for lower emissions products and services

**Company-specific description**

New Part L building regulations, which focus on reducing carbon emissions and improving energy efficiency This provides the Group with opportunities associated with the increasing requirement from Government for more energy efficient buildings. It encourages innovative solutions to carbon reductions.

**Time horizon**

Current

**Likelihood**

Very likely

**Magnitude of impact**

Medium-high

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

400000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Illustrative project financial impact. Increased cost to customers in assets being constructed. As noted above, this can have an impact of 10% of capital cost to build if options for increased energy efficiency above the baseline are selected. However, this also presents the consumer with very much reduced energy and utility costs.

**Strategy to realize opportunity**

The main mechanism for management assessment of this is through the Division's management systems and the requirement to monitor and assess the impact of legislation and standards on operations. This is completed in a forward looking basis, taking account of Government consultation and Industry developments, thereby anticipating future changes and opportunity for the Group.

**Cost to realize opportunity**

0

**Comment**

Inclusive of current management costs, and therefore no immediate change in cost of management

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**Identifier**

Opp6

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development of climate adaptation and insurance risk solutions

**Type of financial impact**

Increased revenue through new solutions to adaptation needs (e.g., insurance risk transfer products and services)

**Company-specific description**

Requirement to deliver assets that can withstand impact of change in physical climate parameters i.e. climate change adaptation. (This is impacting on the Group in that it needs to plan for the delivery of resilient assets through its design capability and engineering services, modifying its service capability and engineering capability as necessary).

**Time horizon**

Short-term

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**Likelihood**

More likely than not

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

500000000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Potential increased capital cost of construction. UK Government published in December 2016 a national infrastructure pipeline, and its intention to invest in £500 Billion worth of infrastructure investment, including major projects such as the Thames Tideway Tunnel, and upgrading the A14, that would have to take account of resilience. Opportunity therefore for the Group is in accessing projects associated with this planned spend. Illustrative 0.1% of £500bn.

**Strategy to realize opportunity**

The main management method here is to consider such opportunities as part of the normal strategic planning annual exercise. Continually reviewed during the year, the Group's leadership teams review the Groups strategy and potential for growth, new markets, and market entry as part its normal strategic management process and cycle. Opportunity uptake would be through use of in-house specialists and external consultants to help with design process as well as the update of any standards and approaches take by the Group's engineers. These are then incorporated into existing design and construction management processes. For example, on A14 Junctions 7 to 9, major highways project, the drainage designs included consideration of climate change and the potential for increased rainfall intensities on this linear asset.

**Cost to realize opportunity**

0

**Comment**

Included in existing management costs, and so no additional costs anticipated.

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**Identifier**

Opp7

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development of climate adaptation and insurance risk solutions

**Type of financial impact**

Increased revenue through new solutions to adaptation needs (e.g., insurance risk transfer products and services)

**Company-specific description**

The floods of recent years has seen certain clients, such as the Environment Agency, and Yorkshire Water procure the construction of assets, such as flood defence schemes. This thereby provides opportunities for work winning.

**Time horizon**

Medium-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium-high

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

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**Potential financial impact figure (currency)**

139000000

**Potential financial impact figure – minimum (currency)**

&lt;Not Applicable&gt;

**Potential financial impact figure – maximum (currency)**

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

Winning such work has a direct impact on turnover. Assuming provision of climate adaptation products and services accounts for 5% of all tenders: 5% of £2,972m (Group turnover in 2018) = £148.6m

**Strategy to realize opportunity**

The main management method here is to consider such opportunities, as part of the normal strategic planning annual exercise. Continually reviewed during the course of the year, the Group's leadership teams review the Groups strategy and potential for growth, new markets, and market entry as part its normal strategic management process and cycle. Opportunity uptake would be through use of in-house specialists and external consultants to help with design process as well as the update of any standards and approaches take by the Group's engineers. Incorporated into existing design and construction management processes. A project specific example would be major water infrastructure upgrades for Yorkshire Water as part of the AMP6 Framework (part of Construction and Infrastructure division).

**Cost to realize opportunity**

0

**Comment**

Included in existing management costs, and so no additional costs anticipated.

**Identifier**

Opp8

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Type of financial impact**

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

**Company-specific description**

Morgan Sindall Group, through its divisions, work for numerous private and public sector clients, who have differing sustainability priorities. By demonstrating clear leadership and action around important sustainability issues, makes us more attractive and successful in work winning activities. This then leads to increased market share, through strong tender success performance, increasing both turnover and profit; the corollary of which would see increased job security for employees and supply chain opportunities. The sustainability component of a tender award accounts for between 5-15% of the submission. For example, with Network Rail, a client of Construction and Infrastructure sustainability accounts for 8% and Construction and Infrastructure is a signatory to Network Rail's sustainability charter. The HS2 tender, for which MSG won the enabling works, is an exception, where sustainability was woven into all questions and was said to account for 40% of the mark allocation.

**Time horizon**

Medium-term

**Likelihood**

Virtually certain

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

139000000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

### Potential financial impact figure – maximum (currency)

<Not Applicable>

### Explanation of financial impact figure

The positive financial impact of addressing the challenges of sustainability from a work-winning perspective cannot be overstressed. Assuming sustainability accounts for 5% of all tenders: 5% of £2,972m (Group turnover in 2018) = £148.6m. A more specific example can be provided from our Construction and Infrastructure division: In the Thames Tideway Tunnel West contract awarded, where the value of the contract was £416m (approx). The Sustainability questions accounted for 7% of the awarded contract submission, where evidence of carbon management and reduction performance was necessary. 7% of £416m = £29.12m

### Strategy to realize opportunity

1) Clear leadership and strategic direction: This ensures appropriate resource is deployed to achieve the delivery against the Group's Total Commitments. For example in 2016 a Carbon Steering Group was formed at Group level with representatives from all our divisions. The group has the objective of driving carbon reduction efforts and initiatives forward in the next phase of our strategy. 2) Action plans are created to ensure the delivery of strategic objectives at project level. 3) Our communication strategy ensured we engage employees and interested parties - Group produces regular sustainability communications to promote awareness, share good practice and report performance. These include: - 2018 Responsible Business Report for all stakeholders, including employees - Annual Report 2018 - publicly available communication. - Website. In addition, each division produces its own sustainability communications.

### Cost to realize opportunity

0

### Comment

Sunk cost within normal staff costs, so no additional costs.

## C2.5

### (C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted for some suppliers, facilities, or product lines	This is impacting how we provide services, with for example, significant changes to our company car policy, and vehicles used on projects, to reduce carbon emissions. In general, across projects, we've replaced lighting with LEDs; and carbon footprinting is being carried out on an increased number of projects, e.g in construction of the University of Nottingham's Centre for Sustainable Chemistry. There has been an increase in requests for BREEAM, Ska and other certifications from the Fit Out service teams, and requirements for other heating technologies and options, such as GSHP for Lovell projects. 50% of the fit-outs UK assessment team are now Well Standard. For the business overall, this impacts on investment, training, and service focus.
Supply chain and/or value chain	Impacted	Our supply chain, and broader value chain, is having to adjust to new requirements driven by climate-related issues. As an example, for M&E contractors generating compliant thermal models is potentially an issue, so contractors are actively supported through the Supply Chain School, with specific carbon/climate education. We carry out monthly measurement of activity in this area. We are seeing, and supporting the use of greener equipment on projects. Our 'Accommodation Desk' which helps achieve best value buying solutions for accommodation and associated plant is a differentiator for the market. We are now introducing more solar arrays on site cabins, and introducing new technologies such as hybrid lighting towers. To reduce energy consumption and carbon emissions, air tightness/thermo conductivity on construction project cabins has gone up substantially - however this could also mean that occupants are potentially over-heating in high temperature periods - so we are spending more on mitigating this issue for or contractors.
Adaptation and mitigation activities	Impacted	For infrastructure projects such as the A6, and AMP6 infrastructure framework water projects; we need to identify more opex efficient delivery over project lifetimes. More consultancy support is generally now required because of increased flooding risks. For example, we are a leading provider on the Thames Tideway construction project, to handle increased flood risk. Rail and infrastructure standards on construction projects are being altered due to climate change. Projects may potentially run late because of weather. There are low temp issues with completing concreting, and potentially late handover of landscaped projects due to changing weather patterns. The biggest difference has been made in terms of manufacturing costs. In conflict to climate issues, we may be forced to reduce other cost aspects on projects, to counteract increasing costs due to climate adaptation and mitigation costs in specification.
Investment in R&D	Impacted	Investments in carbon modelling have been made, e.g. for the University of Nottingham Chemistry Centre, making use of Research and Development tax incentives. EV chargers being rolled out across the business and we are encouraging the installation of EV in cabins. Telematics in hire vehicles. Tunnelling - patents for lasers etc. and concrete work -trailing new vehicles and plant. The Horizon group at the supply chain school helps to cover where future investments should be made.
Operations	Impacted	There have been significant changes to our company car policy, including green incentives for Low Carbon vehicles, and low carbon only options; and vehicles used on projects, to reduce carbon emissions. For example, telematics are being applied to reduce mileage and carbon emissions on vehicle movements. Our HQ is being remodelled as a sustainable, SKA Gold office.
Other, please specify	Please select	

## C2.6

**(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.**

	Relevance	Description
Revenues	Impacted	Overall, our reputation in the market has helped to increased revenues. MSG's reputational capital has helped to win work, and despite revenue increases, carbon emissions have generally reduced. On recent major construction projects such as HS2, for example, there has been increased interest in measuring carbon emissions, and we are seeing requests from clients to reduce tonnage of embodied carbon. MEES is likely to increase the number of fit outs required by customers, and climate measurement on fit outs. All of which has to be factored into the financial planning process for projects. MSG has successfully bid for projects that included a significant portion of climate change questions. The Muse division won "Developer of the Year" due to its regeneration policy.
Operating costs	Impacted	Tackling climate change issues has both positive and negatives impacts on operating costs. Examples where operating costs are being impacted and factored into financial planning include: Embedding carbon activities into people's job roles, rather than relying on individual experts helps to save money across the Group; Activities around CRC and ESOS helping to reduce carbon tax from £360k to £70k; Lowering accommodation cabin costs through reducing fuel consumption; Steel costs increases being balanced with cost of fuel; Impacts on the cost of bricks and concrete blocks; planning for more green specifications on products; planning investments in vehicle trackers and behavioural training for drivers. We have had to plan in for and balance price increases for materials by reducing our carbon/energy costs to mitigate this.
Capital expenditures / capital allocation	Impacted	Investment in leased assets, particularly vehicles, has been impacted as we look to reduce emissions but also to ensure that capital expenditures don't tie us into potentially obsolete equipment or vehicles. An example of the impact on capital allocations is the decision to improve and revamp our HQ at Kent House, to be a lower carbon building.
Acquisitions and divestments	Not yet impacted	No significant acquisitions or divestments have been made for the last the 5 years.
Access to capital	Impacted	Overall, our trading position and reputation makes it easier to access capital, though it is not clear if climate change has influenced specific investors. In terms of public sector funding an example of impact is The London Mayor's Energy Efficiency Fund, which provides preferential lending for projects which reduce carbon emissions.
Assets	Impacted	In terms of the potential for assets becoming obsolete due to climate change activities, there is less risk from a preference for leasing rather than investing. An example of impact is Group consideration of divestment from certain properties due to poor energy performance.
Liabilities	Impacted	Additional time is required on projects to get plans approved and address any potential for liabilities. Examples include new SEPA plans that require contingency plans for flooding and more rigorous modelling.
Other	Please select	

## C3. Business Strategy

### C3.1

**(C3.1) Are climate-related issues integrated into your business strategy?**

Yes

### C3.1a

**(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?**

Yes, qualitative and quantitative

### C3.1c

**(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.**

#### 1) The process by which the strategy is influenced:

In early 2018, we conducted our most comprehensive survey to date, to find out which responsible business issues our stakeholders think we should prioritise going forward. Our latest survey used a statistical online survey tool that helps differentiate issues according to relevance and importance. The survey was completed by 2,000 employees and 269 external stakeholders. Our 2018 survey included a long-list of potential issues drawn from the GRI G4 Sustainability Reporting Guidelines, the United Nation's Sustainable Development Goals (SDGs) and advice from our divisions. Our material issues remain broadly in line with our Total Commitments.

Our business separately continues to recognise the importance of this issue and so it continues to be central to our Sustainability strategy and documented in the Group's five 'Total Commitments' - "Total Commitment to Improving the Environment" includes a commitment to reducing the Group's carbon emissions (absolute).

The Group has a clear process where risks and opportunities, including those related to climate change, are reviewed and identified on a six-month cycle. The output from the Group's sustainability forum and the Group's executive team ensure a bottom-up as well as a top-down approach to the identification of risks and opportunities and the subsequent incorporation of mitigation into business strategies.

#### 2) How climate change impacts influenced the strategy, namely regulatory impact and customer requirements:

a) Regulatory impact arises through participation in the Carbon Reduction Commitment, in mandatory Greenhouse Gas reporting requirements (as established in The Companies Act 2006 Regulations 2012) and more recently in the Energy Saving Opportunity Scheme (ESOS). These regulatory requirements result in carbon reduction plans being put in place, including improved monitoring of emissions, which has led to reductions in carbon emissions being achieved. These requirements necessitate an awareness of the contribution of the Group's operations towards climate change.

b) Customer requirement and the necessity to deliver projects that match their expectations that can include design for climate change adaptation, resilience, or building requirements that set exacting climate mitigation approaches including BREEAM, CEEQUAL or Building Regulations.

#### 3) Short term strategy changes

The main aspect of climate change that influenced our short-term (or current) strategy has been legislative compliance and cost savings and the Group has focused on the use of fuels in its vehicles as well as looking to minimise its tax liability associated with its consumption of energy (gas, electricity and diesel). Fuel consumption is the single biggest carbon emitter and investment has been made to the company fleet, plant and machinery as well as to raising awareness and promote fuel-efficient driving styles. Group has also revised its emissions audit schedule and content of its annual report to comply with new mandatory GHG emissions reporting legislation in the UK.

#### 4) Long term strategy changes

The Group works in a sector where the UK government and industry has established clear reduction targets for the assets that are being built. The Group's longer-term strategy is therefore in-line with the shorter, medium and longer term reduction targets associated with 2020, 2025 and 2050. The Group has committed to reducing our greenhouse gas (GHG) emissions, where we have direct operational control by 11 % from the 2016 benchmark level by the end of 2025, and by 56% by 2050.

The current focus of the Group remains on meeting its 2020 emissions targets through reducing operational carbon from our sites and projects, with actions taking place with regards to carbon emissions from travel and logistics plus electricity consumption. An additional element of the strategy will be to maintain external certification of our performance reporting and metrics against the ISO 14064-1 standard.

In line with the enhanced requirements around the new revision to ISO 14001:2015, a refreshed perspective is being developed around how environmental objectives are being achieved across a lifecycle perspective, across the divisions. Here, we are considering how we influence every part of the lifecycle of a construction asset, from initial concept, through to work winning, design, procurement, construction phase, use of asset by occupier, through to end of life and then back into redevelopment.

Allied to an internal operational focus, our strategy is to address delivery of government objectives associated with carbon neutral buildings.

#### 5) Strategic advantage

Potential for advantage is being realised through successive improvements in the gathering of data and public reporting of the Group's emissions that, to date, have continued to be reduced. Our Group is therefore emerging as a leader through performance, for example, being included in CDP Leadership Index in 2013 and 2014 and achieving 55% carbon reductions over 7 years, since 2010

baseline year.

6) Substantial business decisions made that are linked to climate change (in the reporting year)

- a) Morgan Sindall has committed to delivering on its Science-based carbon reduction targets, which were approved in early 2018. Science-based targets provide companies with a clearly defined pathway to future-proof growth by specifying how much and how quickly they need to reduce their greenhouse gas emissions. Science-based target setting can spur ambition and generate the innovations needed to transition to a low-carbon, sustainable economy. This type of innovation can redefine companies' bottom lines by creating new business models and sources of value, and by disrupting currently unsustainable economic systems.
- b) Set up a Carbon and Energy Action Group chaired by Director of Sustainability and Procurement. The first meeting took place in November 2016.

7) How the Paris Agreement has influenced the business strategy

The Paris Agreement has highlighted continued global efforts to fight climate change and has helped the Group's climate change strategy gaining further momentum and increased its influence on the wider strategy of the business. As part of this renewed commitment the Group has:

- Signed up to the 'Call to Action' and gained approval for Science-Based carbon emissions reduction targets
- Established an internal Carbon Steering group to assess trends, reputational and regulatory climate-related risks and drive the strategy forward

### C3.1d

**(C3.1d) Provide details of your organization's use of climate-related scenario analysis.**

Climate-related scenarios	Details
2DS	Morgan Sindall Group used the Sectoral Decarbonization Approach (SDA) to help establish science-based targets. The SDA allocates the 2°C carbon budget to different sectors. This method takes into account inherent differences among sectors, such as mitigation potential and how fast each sector can grow relative to economic and population growth. From a 2016 baseline, the International Energy Agency's 2°C Scenario model was used to define a sector intensity pathway for MSG's scope 1 and 2 emissions to 2025, and further beyond this to 2050. The time horizon to 2025 is linked to our long-term planning horizon, and the 2050 target to at least the length of time that many MSG designed and constructed assets will be in place. Projected GHG emissions from all areas of our business, where we have direct control, were incorporated into the scenario model. In 2017, the Group finalised the science-based targets which received approval from the Science Based Target Initiative in March 2018. The Group will report its performance against these science based targets as part of its annual reporting for 2018. The targets commit MSG to reducing its GHG emissions, where it has direct operational control, by 11 % from the 2016 benchmark level by the end of 2025, and by 56% by 2050. In order to meet these targets, as well as reducing direct GHG emissions, we recognise that we need to use our influence on clients, suppliers, sub-contractors, and other partners along the value chain more effectively. We are developing better ways of delivering products and services - that generate much lower carbon emissions during project delivery and product lifecycle. We are also rolling out a project carbon estimation tool, and introducing a Carbon Charter across the group, where individuals are trained, and sign-up to specific carbon reduction objectives in their business roles and day-to-day activities.

### C4. Targets and performance

#### C4.1

**(C4.1) Did you have an emissions target that was active in the reporting year?**

Absolute target

#### C4.1a

**(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.**

**Target reference number**

Abs 1

**Scope**

Scope 1+2 (location-based)

**% emissions in Scope**

100

**Targeted % reduction from base year**

11

**Base year**

2016

**Start year**

2017

**Base year emissions covered by target (metric tons CO2e)**

24135

**Target year**

2025

**Is this a science-based target?**

Yes, this target has been approved as science-based by the Science-Based Targets initiative

**% of target achieved**

2.4

**Target status**

Underway

**Please explain**

This combined scope 1 and scope 2 absolute emissions reduction target is a new science-based target, which was set in 2017 and approved by the Science Based Targets Initiative. It replaces the following 2020 targets, which were on track to be significantly exceeded: Scope 1: Reduce direct fuel consumption by 26% by 2020 against a 2010 baseline through fuel efficient choice and driving behaviour. Achieved: absolute emissions in 2016 were 8,535.36 tCO2e compared to 2010 baseline, 23,480tCO2. This represented a 63% reduction achieved compared to 26% target. Scope 1: Reduce bulk fuel purchase and use by 26% by 2020 against a 2010 baseline, through ecosite establishment, equipment selection and behaviour. Achieved: absolute emissions of 8,665.40 tCO2e in 2016 compared with 10,581tCO2e in 2010, our baseline year. This represented a 18% reduction achieved compared to 26% target Scope 2: Reduce direct electricity consumption by 26% by 2020 against a 2010 baseline, through installation of energy efficient devices and behavioural change. Achieved: absolute emissions of 6,934.73 tCO2e in 2016 compared with 25288 tCO2e in 2010, our baseline year. This represented a 27% reduction achieved compared to 26% target. In 2018 there was a verified 48.2% reduction in absolute scope 1 and 2 emissions made relative to the base year. Reductions are based upon a rolling five year average.

**Target reference number**

Abs 2

**Scope**

Scope 1+2 (location-based)

**% emissions in Scope**

100

**Targeted % reduction from base year**

56

**Base year**

2016

**Start year**

2017

**Base year emissions covered by target (metric tons CO2e)**

24135

**Target year**

2050

**Is this a science-based target?**

Yes, this target has been approved as science-based by the Science-Based Targets initiative

**% of target achieved**

2.4

**Target status**

Underway

**Please explain**

This combined scope 1 and scope 2 absolute emissions reduction target is a new science-based target, which was set in 2017 and approved by the Science Based Targets Initiative. It replaces the following 2020 targets, which were on track to be significantly exceeded: Scope 1: Reduce direct fuel consumption by 26% by 2020 against a 2010 baseline through fuel efficient choice and driving behaviour. Achieved: absolute emissions in 2016 were 8,535.36 tCO<sub>2</sub>e compared to 2010 baseline, 23,480tCO<sub>2</sub>. This represented a 63% reduction achieved compared to 26% target. Scope 1: Reduce bulk fuel purchase and use by 26% by 2020 against a 2010 baseline, through ecosite establishment, equipment selection and behaviour. Achieved: absolute emissions of 8,665.40 tCO<sub>2</sub>e in 2016 compared with 10,581tCO<sub>2</sub>e in 2010, our baseline year. This represented a 18% reduction achieved compared to 26% target Scope 2: Reduce direct electricity consumption by 26% by 2020 against a 2010 baseline, through installation of energy efficient devices and behavioural change. Achieved: absolute emissions of 6,934.73 tCO<sub>2</sub>e in 2016 compared with 25288 tCO<sub>2</sub>e in 2010, our baseline year. This represented a 27% reduction achieved compared to 26% target. In 2018 there was a verified 48.2% reduction in absolute scope 1 and 2 emissions made relative to the base year. Reductions are based upon a rolling five year average.

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C4.2

**(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.**

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C4.3

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

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C4.3a

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO<sub>2</sub>e savings.**

	Number of initiatives	Total estimated annual CO <sub>2</sub> e savings in metric tonnes CO <sub>2</sub> e (only for rows marked *)
Under investigation	6	5000
To be implemented*	4	4000
Implementation commenced*	2	2000
Implemented*	12	2468
Not to be implemented	2	

---

C4.3b

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

**Initiative type**

Other, please specify (Fleet)

**Description of initiative**

<Not Applicable>

**Estimated annual CO2e savings (metric tonnes CO2e)**

954

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

208000

**Investment required (unit currency – as specified in C0.4)**

72000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Commercial vehicle fleet continues to be fitted with telematics, generating detailed information on use, movement and emissions. Management takes appropriate action to influence driver behaviours providing for efficient vehicle use as well as improved and reduced emissions performance. We now have one project (c50 vehicles ) fitted with cameras which identify and record instances of harsh driving behaviours, enabling management action to be taken. The fleet of fully electric commercial vehicles has grown to 10, with a further 22 hybrid / PHEVs. Company car avg CO2 rating reduced by 7 points to 100g/km and contributing 100 tonnes CO2e reduction.

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**Initiative type**

Other, please specify (Green travel plan)

**Description of initiative**

&lt;Not Applicable&gt;

**Estimated annual CO2e savings (metric tonnes CO2e)**

450

**Scope**

Scope 3

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

0

**Investment required (unit currency – as specified in C0.4)**

10000

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Employee travel to work; As part of the management system, Morgan Sindall projects are required to have a Green Travel Plan in place aimed at the employees from each site or office location. This plan is put in place to provide employees with a variety of energy efficient travel options and is reinforced on site through the provision of bicycle racks, showers and other facilities. Car sharing is actively promoted and 'sharemiles' are captured as part of the monthly SHEQ reporting. Magnitude of CO2e savings estimated at 10% of annual commuting emissions.

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**Initiative type**

Process emissions reductions

**Description of initiative**

New equipment

**Estimated annual CO2e savings (metric tonnes CO2e)**

100

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

15000

**Investment required (unit currency – as specified in C0.4)**

75000

**Payback period**

4 - 10 years

**Estimated lifetime of the initiative**

3-5 years

**Comment**

5 Oldbury Viaduct. An electric vehicle charging point has been installed at our main site offices at Kelvin Way. This allows staff who own plug in hybrids or electric vehicles to charge their vehicles free of charge. These vehicles are used to travel to and from site so will lead to a fuel reduction for the scheme. The scheme's fleet of chapter 8 vehicles have been replaced from diesel to hybrid, which are part electric and part petrol powered. A hybrid vehicle has the advantage of being able to switch on to its electric motor to drive in heavy traffic or built up areas, such as Oldbury, which will result in fuel reductions. In addition they emit very low levels of nitrogen oxides, especially compared with their diesel equivalents. Figures provided are of order of magnitude.

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**Initiative type**

Process emissions reductions

**Description of initiative**

New equipment

**Estimated annual CO2e savings (metric tonnes CO2e)**

100

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

10000

**Investment required (unit currency – as specified in C0.4)**

100000

**Payback period**

4 - 10 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Our Construction and Infrastructure business currently have a program in place for the Heathrow Aviation project to replace diesel vans with electric. Six have been replaced with a further 4 to follow. GTL (Gas-to-Liquids) fuel is being used on the smaller plant approx. 10% of our fuel requirements on site. Figures provided are order of magnitude estimates.

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**Initiative type**

Energy efficiency: Building fabric

**Description of initiative**

Insulation

**Estimated annual CO2e savings (metric tonnes CO2e)**

100

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

25000

**Investment required (unit currency – as specified in C0.4)**

50000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Site Accommodation – ECO cabins are being more widely used on our sites. The ECO specification includes the building fabric and temperature, lighting and ventilation systems, has been designed to lower running costs by saving energy. This is demonstrated in each units Energy Performance Asset Rating. We have a working group to drive this initiative. Figures provided are order of magnitude estimates.

---

**Initiative type**

Energy efficiency: Processes

**Description of initiative**

Fuel switch

**Estimated annual CO2e savings (metric tonnes CO2e)**

100

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

10000

**Investment required (unit currency – as specified in C0.4)**

1000

**Payback period**

<1 year

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Site Accommodation is being geared to optimum fuel by location (based on availability of Gas, Electric etc).

---

**Initiative type**

Process emissions reductions

**Description of initiative**

Changes in operations

**Estimated annual CO2e savings (metric tonnes CO2e)**

539

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

---

140401

**Investment required (unit currency – as specified in C0.4)**

31250

**Payback period**

<1 year

**Estimated lifetime of the initiative**

3-5 years

**Comment**

Site Accommodation for the M5 Oldbury Viaduct located between junctions 1 and 2 of the M5 northwest Birmingham. The project started in May 2017 and is due to complete in October 2019. From the works onset every aspect of the site accommodation set up was assessed for monetary and CO2 savings. The areas addressed included - Ventilation and Cooling (HVAC) controls to appropriate levels, fit timers to heating systems, office area redesign to provide just one kitchen per floor, none inclusion of vending machines, LED lighting and the reduction of the number of light fitting, PIR to shorter intervals, sealing all inlet pipes to reduce draft,

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**Initiative type**

Process emissions reductions

**Description of initiative**

Changes in operations

**Estimated annual CO2e savings (metric tonnes CO2e)**

52

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

8069

**Investment required (unit currency – as specified in C0.4)**

2502

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

1-2 years

**Comment**

M5 Oldbury Viaduct located between junctions 1 and 2 of the M5 northwest Birmingham. The project started in May 2017 and is due to complete in October 2019. Despite being in an urban area, connecting to mains power at the M5 Oldbury viaduct has proved difficult. This is due to the lack of mains power nearby and obstructions such as the extensive canal network and local roads underneath. As a result, generators have been required to provide power for lighting underneath the viaduct and to power tools. The generators run on Gas to Oil (GTL) and were running constantly to provide the power needed. With the shift pattern changing from 24 hours working to no work between 00:00 and 06:00, it was identified that certain areas would not require power during certain hours. The exercise was undertaken to reduce fuel usage, which would lead to cost and carbon savings and help towards the project's target of limiting carbon emissions to 50tCO2e/£m turnover.

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**Initiative type**

Process emissions reductions

**Description of initiative**

Other, please specify (fuel Switch)

**Estimated annual CO2e savings (metric tonnes CO2e)**

1

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

---

**Annual monetary savings (unit currency – as specified in C0.4)**

100

**Investment required (unit currency – as specified in C0.4)**

0

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Fusion have been engaging in a wide range of workshops and research to improve and reduce the HS2 energy footprint even before the mobilisation date of each site. Plant movements is one of our biggest contributors of CO2 emissions and the use of hybrid plant is a key consideration for each relevant work package. The Kobelco SK210HLC-10H hybrid excavator was utilised on Turweston Hill and Windmill Hill habitat mitigation sites being constructed on the Fusion HS2 project. In total, the excavator was on site for 135 days with total useful working hours of 945. By looking at the comparison between the Kobelco hybrid excavator's fuel consumption and the latest top of the range JCB X220 diesel fuelled excavator (which has a similar specification), carbon saving were demonstrated. From the total 135 days in which the Kobelco hybrid excavator was mobilised across both the sites,

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**Initiative type**

Process emissions reductions

**Description of initiative**

New equipment

**Estimated annual CO2e savings (metric tonnes CO2e)**

40

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

165000

**Investment required (unit currency – as specified in C0.4)**

0

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Highways England project - Switch from traditional tower lights to X-ECO Quad lights

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**Initiative type**

Process emissions reductions

**Description of initiative**

Process materials selection

**Estimated annual CO2e savings (metric tonnes CO2e)**

23

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

0

**Investment required (unit currency – as specified in C0.4)**

0

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

3-5 years

**Comment**

Llanelli PFET (Peak Flow Equivalent Treatment) is a scheme currently running with Llanelli Waste Water Treatment Works, Bynea. The scope of works that has been undertaken so far consists of the large excavation of the PFET structure area which has meant the removal of 6000m<sup>3</sup> of muck which has been stored on a stockpile on site. Due to poor weather conditions and the naturally high moisture content of the soil, the earth back-fill removed from the drainage trench has become too wet for use as backfill. One solution to this is to use Type 1 as backfill however this would ensue material costs for 2000m<sup>3</sup> plus the additional cost of removal of the muck off site. To overcome this issue, Granulated Lime will be used to stabilize the back-fill by reducing the water content. This will allow for savings of 500 wagon movements for the drainage trench alone which saved 22,536 kg of CO<sub>2</sub>e.

**Initiative type**

Process emissions reductions

**Description of initiative**

Other, please specify (Materials re-use)

**Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)**

8.4

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

2400

**Investment required (unit currency – as specified in C0.4)**

0

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

&gt;30 years

**Comment**

On the LG Tanks site located in Newport, the site team re-used 15 concrete blocks from the tank roof which re-used for the inlet channel and CSO channel works. By re-using the concrete blocks Morgan Sindall reduced muck away waste by 60 tonnes as well as reducing the amount of concrete needed by 30m<sup>3</sup> which works out to cost approximately £2400. The 60t of reused concrete saved approximately 8.4t CO<sub>2</sub>e.

**C4.3c****(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Compliance with regulatory requirements/standards	Compliance with CRC requirements, The Energy Saving Opportunity Scheme (ESOS) and also the Achilles CEMARS external verification scheme, both of which require reduction strategies to be in place and delivered upon.
Financial optimization calculations	Process optimisation - understanding that process efficiencies e.g. using less fuel will offer operational cost savings and also carbon efficiency.
Financial optimization calculations	Value engineering results in waste and carbon reductions being achieved and this happens at project level, where design is included in the scope of the asset(s) being constructed.

C4.5

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**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?**

Yes

C4.5a

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**(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.**

**Level of aggregation**

Group of products

**Description of product/Group of products**

Designing and constructing low carbon assets for clients. The following are three examples: 1. We have recently completed an office development at Marischal Square, Aberdeen (Developed by Muse as Client, constructed by Morgan Sindall) which demonstrates BREEAM Excellent (73%) and EPC ratings "A". This demonstrates Morgan Sindall Group commitments to minimise the effect of a building on the environment in terms of Carbon dioxide emissions. The better the EPC rating, the less impact on the environment. 2. Morgan Sindall has constructed the UK's first carbon neutral laboratory. The facility houses The University of Nottingham's Centre for Sustainable Chemistry, which serves as a hub to catalyse new collaborations with industry. The centre will be unique in the UK, not only in its design but also in its focus on world-leading research activity in sustainable chemistry. The building is set to achieve a BREEAM rating of Outstanding and LEED (Leadership in Energy and Environmental Design) Platinum rating. It is set to reach carbon neutral status after 25 years. The laboratory was built from natural materials and energy required to run it will be met by renewable sources such as solar power and sustainable biomass. Excess energy created by the building will provide enough carbon credits over 25 years to pay back the carbon used in its construction. 3. University of Birmingham Collaborative Teaching Lab project. We completed this last summer with a BREEAM rating of 74.4% and EPC 'A'. It is exemplary in the sense that it is difficult to achieve EPC A in a lab setting. In addition the University went for a remarkably high space utilization rate for this building. Some universities have space utilization rates as low as 15%, whereas this building was targeting 80%. Increasing space utilization to 80% for CTL maximizes the material (carbon) investment in the building and essentially means that other 'spaces' will be utilized less, more people in one building = less people in other buildings. Also, running the fume cupboards at zero diversity (i.e. all available at 100% capacity 100% of the time) means the building doesn't need to run high energy fume exhaust systems for small isolated experiments, it runs at maximum efficiency most of the time.

**Are these low-carbon product(s) or do they enable avoided emissions?**

Low-carbon product and avoided emissions

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify (Passivhaus, BREEAM, CEEQUAL)

**% revenue from low carbon product(s) in the reporting year**

25

**Comment**

The above percentage is an estimate. The percentage of projects by value where there is design influence is estimated to be 25%. However, we also provide low-carbon products where we are not involved at the design stage, but manage and specify materials and construction. The Group delivered 67 completed projects in 2018 that were confirmed to have achieved BREEAM, CEEQUAL, LEED, SKA or other industry-relevant sustainability ratings. Fit Out delivered Deloitte's new 270,000 sq ft headquarters at 1 New Street Square, London and achieved the highest-ever BREEAM Outstanding score for fit out and is the largest project in the world to be awarded the WELL Building Standard gold certificate in the category of 'New and Existing Interiors'. To help attain these standards, Fit Out trained 25 different subcontractor firms in the procurement of products that are sustainably sourced. We look at the green house guide rating for materials to aid selection of the right product on BREEAM projects. BREEAM is a collaborative approach to design, allowing the team (including our Clients) to make an informed decision on the selection of materials. A good example is the choice of condensing units and the condensate required to provide the cooling (the condensate being a material that can contain high levels of ozone depleting substances. The condensate needs to match the condensing unit. For low carbon projects, we balance the cost of a material or product against its carbon expense so that a project team can ensure that the carbon savings are tracked against the project budget. This might also include a Lifecycle costing exercise to demonstrate the carbon saving over time, even though there might be an initial uplift in capital cost (an example is the use of polished concrete floors instead of a traditional carpet floor covering – carpet being cheap, but needs replacing many times over a 40year lifecycle period. We continue to look at different products and materials, and also at different methods of installing the works. There is a hidden cost with carbon and greenhouse gas emissions – and we look to create efficiency in the way we build to create savings in emissions. We continue to minimise carbon emissions by including things like: eco cabins, no diesel generators, new (efficient) plant and equipment, bulk ordering materials, etc).

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## C5. Emissions methodology

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### C5.1

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**(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

**Scope 1**

**Base year start**

January 1 2016

**Base year end**

December 31 2016

**Base year emissions (metric tons CO2e)**

17200

**Comment**

**Scope 2 (location-based)**

**Base year start**

January 1 2016

**Base year end**

December 31 2016

**Base year emissions (metric tons CO2e)**

6935

**Comment**

**Scope 2 (market-based)**

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

1860.67

**Comment**

**C5.2**

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**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.**

ISO 14064-1

**C6. Emissions data**

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**C6.1**

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**(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?**

**Reporting year**

**Gross global Scope 1 emissions (metric tons CO2e)**

19933.93

**Start date**

January 1 2018

**End date**

December 31 2018

**Comment**

C6.2

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**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We are reporting a Scope 2, market-based figure

**Comment**

C6.3

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**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?**

**Reporting year**

**Scope 2, location-based**

3632.16

**Scope 2, market-based (if applicable)**

1860.67

**Start date**

January 1 2018

**End date**

December 31 2018

**Comment**

C6.4

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**(C6.4) 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

C6.5

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**(C6.5) Account for your organization's Scope 3 emissions, disclosing and explaining any exclusions.**

## Purchased goods and services

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

240000

### Emissions calculation methodology

Calculation from scope 3 screening analysis for science-based targets 1. Top 20 materials by spend • Emissions calculated from main annual consumption volumes of Concrete & Quarry Products, Timber, Bricks, Aggregates, and Reinforced Steel (accounting for 6 of the top 10 purchased product items). • Annual consumption volumes based on average unit price. • All consumption volumes converted to tonnes based on typical material densities etc. • Assumptions as to whether virgin (conservative), open or closed loop recycled material. • Extrapolated using top 20 products spend, and assuming they account for 80% of total group spend. 2. Top 20 Subcontractors by spend • Total estimated spend assuming Top 20 account for 50% of spend. • Apportionment of sub-contractor's own scope 1 and 2 emissions (offsite) based on spend. • Assuming emissions from any off-site, pre-fabricated products is covered here. • Average scope 1 and 2 emissions based on £ for sample of construction engineering service suppliers (no onsite fuel). • Assuming all project site energy use is included in Morgan Sandal scope 1 and 2 emissions. • Currently assuming materials/products, energy and fuel purchased by sub-contractors is used on-site and included in purchased goods and scope 1 and 2 energy emissions. The supply and consumption of potable water has also been assessed. This is a mandatory reporting requirement of the Achilles CEMARS programme

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

### Explanation

## Capital goods

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Explanation

• De minimis • Not significant as most plant is leased

## Fuel-and-energy-related activities (not included in Scope 1 or 2)

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

310

### Emissions calculation methodology

Electricity UK: Transmission and distribution losses (2013 methodology). Fuel and energy related emissions relate solely to electricity transmission losses. Data for transmission losses are generated via an external broker and energy provider data.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

### Explanation

## Upstream transportation and distribution

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

15500

### Emissions calculation methodology

Calculation from scope 3 screening analysis for science-based targets • Emissions calculated from main annual consumption volumes for Concrete and Quarry Products, Timber, Bricks, Aggregates, and Reinforced Steel (accounting for 6 of the top 10 purchased product items). • Typical supply routes, transport legs and vehicles assumed • Extrapolated to top 20 products purchased based on spend, then to total assuming they account for 80% of total spend.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

### Explanation

## Waste generated in operations

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

1900

### Emissions calculation methodology

Calculation from scope 3 screening analysis for science-based targets Emissions by tonnage for each waste stream: Landfill, Recycled/EfW, and wastewater. Converted using Defra 2016 emissions factors

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

### Explanation

## Business travel

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

5424

### Emissions calculation methodology

Business travel emissions relate to use of private vehicles on occasional business use as well as public transport (rail and flights). Accounting methods are used to determine the emissions, based on expenses claims for using private vehicles for business use. However, for rail and flights, data is sourced through the Group's travel broker.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

### Explanation

## Employee commuting

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

4500

### Emissions calculation methodology

Calculation from scope 3 screening analysis for science-based targets Estimated based on 2017 employee numbers and UK average commuting mode data.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

### Explanation

## Upstream leased assets

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

1000

### Emissions calculation methodology

Calculation from scope 3 screening analysis for science-based targets • Based on Top 20 supplier spend. • Assumes leased assets include Plant and Tools Hire, Site Accommodation, and Crane Hire. • Estimated and included scope 1 and scope 2 emissions of Lessors based on spend. • Total estimated spend assuming Top 4 suppliers account for 20% of spend

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

### Explanation

## Downstream transportation and distribution

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Explanation

• De minimis (courier vehicles etc.).

## Processing of sold products

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

10000

### Emissions calculation methodology

Calculation from scope 3 screening analysis for science-based targets • This category only refers to emissions from processing subsequent to sale, so is assumed to be de minimis for build projects. • Relevant for design projects, though usage stage covered in category 11 • Assumption made as to magnitude of scope 1 and 2 emissions of companies processing sold products from design projects

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

### Explanation

## Use of sold products

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

1199000

### Emissions calculation methodology

Calculation from scope 3 screening analysis for science-based targets • Estimated the lifetime carbon emissions of buildings, office space, and other infrastructure, based on projected energy consumption, for the 10 largest construction and infrastructure projects by revenue, plus all category A Fit-out projects • Converted to carbon emissions using 2016 factors, reduction in grid emissions intensity has not been factored in to be consistent, and provide screening comparison with purchased embodied emissions

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

### Explanation

## End of life treatment of sold products

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

10000

### Emissions calculation methodology

Calculation from scope 3 screening analysis for science-based targets • Future end of life waste when third-party clears site. Assume similar magnitude to recorded waste emissions from current construction projects, but larger number of relevant projects • Emissions from processing on-site demolition waste in 25-75 years likely to be considerably lower than now, due to on-going improvements in waste processing technology and practices. • Assumption made as to magnitude of emissions

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

### Explanation

## Downstream leased assets

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Explanation

De minimis. less than 1% of emissions

## Franchises

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Explanation

No business franchises, not applicable

## Investments

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

98000

### Emissions calculation methodology

Calculation from scope 3 screening analysis for science-based targets • Emissions from investments in JVs are not captured in corporate scope 1 and 2 emissions • Based on trading transactions and MSG share of contracts (assumed that the smaller the share, the lower the influence on emissions). • Converted to carbon emissions based on Construction & Infrastructure emissions intensity per £m revenue

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

### Explanation

**Other (upstream)**

**Evaluation status**

**Metric tonnes CO2e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Explanation**

**Other (downstream)**

**Evaluation status**

**Metric tonnes CO2e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Explanation**

C6.7

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**(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?**

No

C6.10

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**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

**Intensity figure**

0.00000793

**Metric numerator (Gross global combined Scope 1 and 2 emissions)**

23566

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

2972000000

**Scope 2 figure used**

Location-based

**% change from previous year**

11

**Direction of change**

Decreased

**Reason for change**

2017 emissions = 24,897 tCOe. There has been an overall decrease in combined Scope 1 and 2 CO2e emissions on the previous year: emissions decreased by 1,331 tCO2e going down to 23,566 tCO2e from a 2017 total of 24,897. However, this is despite output increasing by 6.4% in 2018 to £2,972m from £2,793m in 2017. Scope 1+ 2 emissions decreased 1,331. It is not possible to be certain and directly attribute this change to increase in output. The circumstances being influenced by the type and nature of the construction projects being completed. There has been an overall 5% decrease in Scope 1 and 2 CO2e emissions on the previous year: emissions decreased by tCO2e going down to 23,566 tCO2 from a 2017 total of 24,897. Scope 1 emissions were down 1.92%. Scope 2 dropped from 5,337 (2017) to 3,632 in 2018. Output increased from £2,793b to £2,972b. It is not possible to directly attribute this change to emissions reduction activities; the circumstances being influenced by the type and nature of the construction projects being completed.

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## C7. Emissions breakdowns

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### C7.1

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

Yes

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### C7.1a

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	19005.89	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	16.1	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	911.94	IPCC Fourth Assessment Report (AR4 - 100 year)

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### C7.2

**(C7.2) Break down your total gross global Scope 1 emissions by country/region.**

Country/Region	Scope 1 emissions (metric tons CO2e)
United Kingdom of Great Britain and Northern Ireland	19933.93

**C7.3**

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division

**C7.3a**

**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

Business division	Scope 1 emissions (metric ton CO2e)
Construction and Infrastructure	14182
Affordable Housing	2840
Property Services	2724
Muse	0
Investments	3
Group	27
Fit-out	13
Baker Hicks	145

**C7.5**

**(C7.5) Break down your total gross global Scope 2 emissions by country/region.**

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
United Kingdom of Great Britain and Northern Ireland	3632.16	1860.67	12831	6056.86

**C7.6**

**(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

By business division

**C7.6a**

**(C7.6a) Break down your total gross global Scope 2 emissions by business division.**

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Construction and Infrastructure	2032	1800.91
Affordable Housing	1206	59.76
Property Services	61	0
Muse	10	0
Investments	17	0
Group	10	0
Fit-out	232	0
Baker Hicks	64	0

**C7.9**

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Decreased

**C7.9a**

**(C7.9a) 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.**

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	
Other emissions reduction activities	2436	Decreased	9.78	2017 emissions = 24,897 tCOe. $(2,436/24,897) \times 100 = 9.78\%$ 2018 - 23,566
Divestment	0	No change		
Acquisitions	0	No change		
Mergers	0	No change		
Change in output	1105	Increased	4.44	2017 emissions = 24,897 tCOe. $1105/24897 = 4.44\%$ . There has been an overall decrease in combined Scope 1 and 2 CO2e emissions on the previous year: emissions decreased by 1,331 tCO2e going down to 23,566 tCO2e from a 2017 total of 24,897. However, this is despite output increasing by 6.4% in 2018 to £2,972m from £2,793m in 2017. Change in reduction initiatives B = 2,436. Scope 1+ 2 emissions decreased 1,331 (Y). $F = B - Y = 1,105$ (Assumed emissions due to change in output). It is not possible to be certain and directly attribute this change to increase in output. The circumstances being influenced by the type and nature of the construction projects being completed.
Change in methodology	0	No change		
Change in boundary	0	No change		
Change in physical operating conditions	0	No change		
Unidentified	0	No change		
Other	0	No change		

## C7.9b

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**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Location-based

## C8. Energy

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### C8.1

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**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 0% but less than or equal to 5%

### C8.2

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**(C8.2) Select which energy-related activities your organization has undertaken.**

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	No

### C8.2a

---

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	104683	104683
Consumption of purchased or acquired electricity	<Not Applicable>	6057	7264	13321
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	6057	111947	118004

### C8.2b

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**(C8.2b) Select the applications of your organization's consumption of fuel.**

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

**C8.2c**

---

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

**Fuels (excluding feedstocks)**

Burning Oil

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

3444

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

3444

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

---

**Fuels (excluding feedstocks)**

Diesel

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

67300

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

67300

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

---

**Fuels (excluding feedstocks)**

Gas Oil

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

31132

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

31132

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

---

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

1692

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

1692

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

---

**Fuels (excluding feedstocks)**

Petrol

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

1115

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

1115

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

---

C8.2d

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**(C8.2d) List the average emission factors of the fuels reported in C8.2c.**

**Burning Oil**

**Emission factor**

2.53627

**Unit**

kg CO2e per liter

**Emission factor source**

UK Greenhouse gas reporting: conversion factors 2018

**Comment**

**Diesel**

**Emission factor**

2.62694

**Unit**

kg CO2e per liter

**Emission factor source**

UK Greenhouse gas reporting: conversion factors 2018

**Comment**

**Gas Oil**

**Emission factor**

2.97049

**Unit**

kg CO2e per liter

**Emission factor source**

UK Greenhouse gas reporting: conversion factors 2018

**Comment**

**Natural Gas**

**Emission factor**

0.00018

**Unit**

kg CO2e per MWh

**Emission factor source**

UK Greenhouse gas reporting: conversion factors 2018

**Comment**

**Petrol**

**Emission factor**

2.20307

**Unit**

kg CO2e per liter

**Emission factor source**

UK Greenhouse gas reporting: conversion factors 2018

**Comment**

**C8.2f**

---

**(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.**

**Basis for applying a low-carbon emission factor**

Energy attribute certificates, Guarantees of Origin

**Low-carbon technology type**

Wind

**Region of consumption of low-carbon electricity, heat, steam or cooling**

Europe

**MWh consumed associated with low-carbon electricity, heat, steam or cooling**

5947.29

**Emission factor (in units of metric tons CO<sub>2</sub>e per MWh)**

0

**Comment**

---

**Basis for applying a low-carbon emission factor**

Contract with suppliers or utilities (e.g. green tariff), not supported by energy attribute certificates

**Low-carbon technology type**

Nuclear

**Region of consumption of low-carbon electricity, heat, steam or cooling**

Europe

**MWh consumed associated with low-carbon electricity, heat, steam or cooling**

109.57

**Emission factor (in units of metric tons CO<sub>2</sub>e per MWh)**

0

**Comment**

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**C9. Additional metrics**

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**C9.1**

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**(C9.1) Provide any additional climate-related metrics relevant to your business.**

**C10. Verification**

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**C10.1**

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**(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

## C10.1a

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**(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.**

**Scope**

Scope 1

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

VerificationReport\_Morgan\_Sindall\_Group.pdf

**Page/ section reference**

P3

**Relevant standard**

Certified emissions measurement and reduction scheme (CEMARS)

**Proportion of reported emissions verified (%)**

100

---

**Scope**

Scope 2 location-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

VerificationReport\_Morgan\_Sindall\_Group.pdf

**Page/ section reference**

P3

**Relevant standard**

Certified emissions measurement and reduction scheme (CEMARS)

**Proportion of reported emissions verified (%)**

100

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## C10.1b

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**(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.**

**Scope**

Scope 3- at least one applicable category

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Attach the statement**

VerificationReport\_Morgan\_Sindall\_Group.pdf

**Page/section reference**

P3

**Relevant standard**

Certified emissions measurement and reduction scheme (CEMARS)

**C10.2**

**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

Yes

**C10.2a**

**(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?**

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Change in Scope 1 emissions against a base year (not target related)	CEMARS	48.2% reduction in absolute scope 1 and 2 emissions made relative to the base year. Reductions are based upon a rolling five year average. VerificationReport_Morgan_Sindall_Group.pdf
C4. Targets and performance	Change in Scope 2 emissions against a base year (not target related)	CEMARS	48.2% reduction in absolute scope 1 and 2 emissions made relative to the base year. Reductions are based upon a rolling five year average. VerificationReport_Morgan_Sindall_Group.pdf

**C11. Carbon pricing**

**C11.1**

**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

Yes

**C11.1a**

**(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.**

Other carbon tax, please specify (UK CRC Energy Efficiency Scheme)

## C11.1c

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**(C11.1c) Complete the following table for each of the tax systems in which you participate.**

**Other carbon tax, please specify**

**Period start date**

April 1 2018

**Period end date**

March 31 2019

**% of emissions covered by tax**

11.41

**Total cost of tax paid**

60701

**Comment**

## C11.1d

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**(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?**

Group recoups the cost of carbon taxation from its divisions on a proportional basis, thereby making each of the divisions responsible for their climate change impact and at the same time, raising awareness of carbon.

In 2018, within the largest division, Construction and Infrastructure (C&I) the carbon liability was shared between the business units. Hence, operational business units are now responsible for paying for their carbon emissions associated with their projects, adhering to the polluter pays principle. It is anticipated that this will create more ownership and awareness of carbon emissions and therefore climate change and encourage reduction activities as appropriate to that particular business unit. It should be noted that Construction and Infrastructure accounts for 75% of the Group's carbon footprint, as verified by Achilles through the CEMARS scheme.

## C11.2

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**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

No

## C11.3

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**(C11.3) Does your organization use an internal price on carbon?**

Yes

## C11.3a

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**(C11.3a) Provide details of how your organization uses an internal price on carbon.**

**Objective for implementing an internal carbon price**

- Stakeholder expectations
- Change internal behavior
- Drive energy efficiency
- Drive low-carbon investment
- Identify and seize low-carbon opportunities

**GHG Scope**

- Scope 1
- Scope 2

**Application**

Group recoups the cost of carbon taxation from its divisions on a proportional basis, thereby making each of the divisions responsible for their climate change impact and at the same time, raising awareness of carbon. In 2018, within the largest division, Construction and Infrastructure, the carbon liability was shared between the business units. Hence, operational business units are now responsible for paying for their carbon emissions associated with their projects, adhering to the polluter pays principle. It is anticipated that this will create more ownership and awareness of carbon emissions and therefore climate change and encourage reduction activities as appropriate to that particular business unit. It should be noted that CandI accounts for 75% of the Group's carbon footprint, as verified by Achilles through the CEMARS scheme. MSG is introducing a Social Value Bank, which will apply a new Carbon price to link to delivery of SBTs, and will be used in its carbon assessment tool.

**Actual price(s) used (Currency /metric ton)**

18.3

**Variance of price(s) used**

This was the average cost per tonne applied for the CRC compliance period 2018/19. The price of the allowances for the 2018-19 compliance year was set at £17.20 per tonne of CO2 for the forecast sale and £18.30 per tonne of CO2 at the "buy to comply" sale.

**Type of internal carbon price**

Implicit price

**Impact & implication**

MSG recoups the cost of carbon taxation from its divisions on a proportional basis, thereby making each of the divisions responsible for their climate change impact and at the same time, raising awareness of carbon. In 2018, within the largest division, Construction and Infrastructure, the carbon liability was shared between the business units. Hence, operational business units are now responsible for paying for their carbon emissions associated with their projects, adhering to the polluter pays principle. The Carbon price has helped generate awareness and encourages the implementation of emissions reduction initiatives. The CRC Energy Efficiency Scheme is set to be phased out by the UK Government at the end of the 2018/19 compliance period. MSG is introducing a Social Value Bank, which will apply a new Carbon price to link to delivery of SBTs, and will be used in its carbon assessment tool.

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**C12. Engagement**

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**C12.1**

**(C12.1) Do you engage with your value chain on climate-related issues?**

- Yes, our suppliers
- Yes, our customers

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**C12.1a**

**(C12.1a) Provide details of your climate-related supplier engagement strategy.**

**Type of engagement**

Engagement & incentivization (changing supplier behavior)

**Details of engagement**

Run an engagement campaign to educate suppliers about climate change

Other, please specify (Delivery of project commitments)

**% of suppliers by number**

20

**% total procurement spend (direct and indirect)**

40

**% Scope 3 emissions as reported in C6.5**

40

**Rationale for the coverage of your engagement**

1) Methods of engagement The main ways in which we engage with our supply chain is through the Supply Chain Sustainability School - a free virtual learning environment that aims to help construction suppliers and subcontractors develop their sustainability knowledge and competence. Morgan Sindall was a founder member of the School and remains a key funding member, with representation on the Board. Via the SCSS we have driven the production of new knowledge that is being provided free of charge to the supply chain and a new carbon action group has been formed to explore ways of how the reduction of carbon could be achieved. We instigated and chair the SCSS Plant Group which now includes main contractors, major manufacturers, fuel providers to create a best practice guide to raise standards for construction plant & equipment with low carbon impacts and to improve air quality etc 2) Supply Chain events These provide local awareness raising opportunities to set out the importance of carbon reduction objective of Morgan Sindall to potential new subcontractors in the locality. Examples within Construction and Infrastructure division were engagement with the construction supply chain in the South-West, at Exeter Racecourse and with the supply chain in East Anglia at Newmarket Racecourse. 3) Strategy for prioritisation and measurement of success Prioritisation and participation invitations have commenced with our strategic supply chain partners and then the remainder of the supply chain based on turnover and spend - starting with those organisations receiving the greatest spend. The Group engages with both suppliers and customers through direct liaison on a project-by-project basis. Here, the focus of engagement is project delivery that can include delivery of carbon reduction and measurement commitments. For example where projects are required to be certified against the BREEAM standard and achieve agreed ranking, the project teams will work directly with the supply chain to ensure documented and attributed solutions are put into place that deliver carbon reductions thereby achieving the relevant standard.

**Impact of engagement, including measures of success**

Success in engagement is measured in two ways; through number of participants in the School as well as those that complete reassessment exercise. On projects, success is simply measured through achievement of 'Perfect Delivery' and the delivery of the projects and certification to the agreed levels i.e. BREEAM outstanding, excellent, etc. The Construction and Infrastructure division sets out their expectation from their sub-contractors in the "Creating A Safe and Sustainable Environment" (CASSE) document. This forms the basis for pre-let meetings. We now have approved Science-based targets in place for scope 3 emissions, which cover our supply chain. Performance against these targets will be measured on an annual basis. Morgan Sindall has committed that 70% of sub-contractors by spend will be requested to:

- Disclose their greenhouse gas emissions by the end of 2020.
- Establish their own science-based target by the end of 2025.

For purchased goods and services, and upstream transportation and distribution, we are prioritising the sourcing of those with lowest embodied energy and transport emissions. This will be carried out by rolling out our carbon tool to all projects over a value of £10m, and a Carbon Charter, including carbon awareness training and personal carbon reduction pledges - specific to each employee's job role, by 2020. We will also train at least 1,400 sub-contractors by 2023 on reducing carbon emissions.

**Comment**

Approximately 75% of our turnover goes through the supply chain and the vast majority of our suppliers are small and medium sized businesses (up to 99% of our supply chain). Morgan Sindall Group is a founder of the Supply Chain Sustainability School and we will use this as a platform to deliver training and best practice carbon performance. There are currently around 3,600 companies and 24,000 individuals registered with the school. Construction companies can have a big impact on scope 3 emissions because they can control and influence behaviours of their equipment, materials and labour suppliers.

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**C12.1b**

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**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

**Type of engagement**

Education/information sharing

**Details of engagement**

Share information about your products and relevant certification schemes (i.e. Energy STAR)

**% of customers by number**

25

**% Scope 3 emissions as reported in C6.5**

75

**Please explain the rationale for selecting this group of customers and scope of engagement**

Where we are able to influence design, Morgan Sindall commits to complete life-cycle assessments, providing the best (optimized) carbon design option, for all major projects by 2023 to allow clients to make better informed decisions; as well as the roll-out of its embodied carbon tool for use by all site teams, by 2023. Morgan Sindall expects this strategy to achieve annual GHG reductions to an order of magnitude that is equivalent to at least a 9% reduction in scope 3 GHG emissions by 2023 compared to 2016 levels. The Group engages with both suppliers and customers through direct liaison on a project-by-project basis. Here, the focus of engagement is project delivery that can include delivery of carbon reduction and measurement commitments. For example where projects are required to be certified against the BREEAM standard and achieve agreed ranking, the project teams will work directly with the supply chain to ensure documented and attributed solutions are put into place that deliver carbon reductions thereby achieving the relevant standard. The carbon impacts from buildings and major infrastructure installations occur far into the future and will also be influenced by decisions on future upgrades, system, and component replacement. In particular, the most significant impacts depend on our ability to influence project design and specifications for clients in terms of specific material sourcing and future energy use. There is also a balance to be had between reducing embodied carbon emissions in purchased materials, energy, and systems, and improving the long-term energy emissions intensity and efficiency performance of the facilities themselves. Some of our ultimate clients are also now beginning to insist on carbon performance, but there is a long way to go and the financial environment is challenging. In the UK built environment, decisions about projects are based primarily on capital expenditure rather than operating costs, and knowledge and interest in carbon performance is still relatively low. That is why our targets focus in particular on the rolling-out of product life-cycle assessments, and on-site carbon tools to all major projects, and the clear communication and promotion of optimized carbon solutions to our clients and major suppliers.

**Impact of engagement, including measures of success**

On projects, success is measured through achievement of 'Perfect Delivery' and the delivery of the projects and certification to the agreed levels i.e. BREEAM outstanding, excellent, etc. For our SBTi approved science-based targets we have made commitments to help reduce the carbon impact for our projects and customers, including: 1. Roll out of the embodied carbon tool for use by site teams, by 2023, to all of our projects over a value of £10m, which will account for around 58% of all contracts by value, and around 66% of all contracts by value excluding fit-out projects. The embodied carbon tool allows site managers to estimate, manage and reduce emissions. 2. Where there is design influence, all new build projects to provide a CO2/m2/year build option which, where feasible, significantly exceeds building regulations Part L standard (or whatever regulations standard in place), and/or achieves "A" rated Energy Performance Certificate, by 2023

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**C12.3**

**(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**

- Direct engagement with policy makers
- Trade associations
- Other

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**C12.3a**

**(C12.3a) On what issues have you been engaging directly with policy makers?**

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Climate finance	Support	We are an active participant with the Greater London Authority (GLA), through London Climate Leaders, along with 10 other businesses, to make London the cleanest city by 2050 and to aggressively reduce carbon by concentrating on the built environment, transport, transferring the capital to renewable energy, creating a circular economy and reducing waste. We are actively discussing with major financial institutions regarding transport movements, the creation of a network of charging points and the development of electric vehicle usage. A map of London roof tops is being digitally created to attempt to maximise the potential for solar power etc. Also at Heathrow we are actively playing our part along with the Carbon Trust in influencing the policy and reduction of the carbon generated at the airport via innovation and driving the supply chain to reduce emissions already Carbon Trust level 2 achieved.	Provide incentives for investment in low-carbon infrastructure.

**C12.3b**

**(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes

**C12.3c**

**(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

**Trade association**

CIOB

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

The CIOB warns against short term policies, calling for holistic strategies to tackle some major 21st century challenges: reducing carbon emissions, protecting against climate change and creating flexible and longer-lasting structures that can be more easily adapted to the changing needs of generations. The CIOB Carbon Action 2050 (CA2050) group leads the Institute and its members in meeting the industry's regulatory targets under the Climate Change Act (2008). Membership of the working group includes designers, building control experts, educationalists, project managers and environmental specialists, reflecting the diversity of construction management professionals we are seeking to influence through this work. The overall aim of the group is to cut carbon emissions through innovation and best practice in project planning, procurement, design, construction, maintenance, operation, retrofit, education and leadership.

**How have you influenced, or are you attempting to influence their position?**

Not attempting to influence the position.

**Trade association**

BUILD-UK

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

BUILD-UK, formerly the UKCG broadly supports the UK Governments position and statements on carbon reduction, working with industry to establish mechanisms and goals leading to an 80% reduction in emissions by 2050, and a 27% reduction by 2020. The Groups targets align with these aspirations.

**How have you influenced, or are you attempting to influence their position?**

Representatives of the Group participate in various sub-committees to UKCG and through participation ensure that the Groups position is represented. (Note: UKCG was replaced by BUILD-UK in September 2015. The task groups are emerging at the time of reporting on CDP).

**Trade association**

UK Green Building Council

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

The UK Green Building Council is a campaign for a sustainable built environment. Their programme of work is about leading industry action on sustainability, building capacity within the sector and influencing government policy to enable green business to flourish. The UKGBC is a member of several review groups inputting to changes in building regulations and voluntary standards for low carbon buildings.

**How have you influenced, or are you attempting to influence their position?**

The Group has top tier membership of this organisation; however, to date has played a passive role in seeking to influence the position. The Group has previously signed up to and endorsed the Green Construction Board Infrastructure Carbon Review Strategy.

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**Trade association**

CIRIA

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

CIRIA is the construction industry research and information association that engages with policy groups, government sponsors and regulators, clients, consultants, contractors and suppliers, which provides our members with a unique insight to new and emerging developments and the opportunity to influence policy and industry development.

**How have you influenced, or are you attempting to influence their position?**

Not attempting to influence the position.

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C12.3e

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**(C12.3e) Provide details of the other engagement activities that you undertake.**

**Method of engagement**

Following the adoption of the Paris Agreement, in 2016 the Group joined over 700 global business and engaged with the 'We Mean Business Coalition' through their Take Action initiative.

**Topic of engagement**

To act and be recognised for leadership on climate change. Businesses recognise that the transition to a low carbon economy is the only way to secure sustainable economic growth and prosperity for all, and that ambitious climate action makes business sense.

**Nature of engagement**

The Group signed up to four climate leadership initiatives using a common online platform developed by We Mean Business.

Actions advocated:

- To provide climate change information in mainstream filings.

By providing climate change information, as a matter of fiduciary duty, companies are sending a clear signal to policymakers that businesses are serious about addressing economic risks and opportunities around climate change.

- To set GHG emissions reduction targets that limit global warming to below 2°C

If we are to limit the increase in global average temperatures to below 2°C — the level governments and leading scientists agree must be achieved - then businesses too must align strategies and emissions reductions targets. By setting these targets in advance of carbon-related regulations, leading companies will be well-equipped to respond to regulatory changes and demonstrate their commitment.

In early 2018 Morgan Sindall Group had its science-based targets for scope 1 and 2 emissions, and its scope 3 emissions targets, approved by the Science Based Target Initiative (SBTI).

The Group engaged with the SBTI throughout the process of setting science based carbon reduction targets.

- To ensure responsible corporate engagement in climate policy

Business plays a crucial role in helping to inform and shape policy. However, companies have a responsibility to ensure that their engagement on policy issues sends a clear, consistent and transparent message to governments. By committing to responsible corporate engagement, companies are advancing best practice in policy advocacy.

- To remove commodity-driven deforestation from all supply chains

Limiting global average temperatures rising to below 2°C is only possible through reducing deforestation and increasing forests restoration. Businesses, through their procurement choices, play a key role in curbing the main drivers of deforestation. By removing commodity-driven deforestation from supply chains, companies are driving towards a low-carbon economy.

**C12.3f**

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**(C12.3f) 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?**

Climate change strategy is incorporated into the Group's Responsible Business Strategy and is part of our Five Total Commitments. The Responsible Business Strategy and Total Commitments are set at Group-level with sign off through the Group Management Team. The Improving the Environment Total Commitments includes a specific commitment to reducing energy use and carbon emissions. In 2018, the targets and KPIs were reviewed and were replaced with science-based targets for reducing the Group's carbon emissions (see 2018 Responsible Business Report Page 17).

Strategic direction is shaped and challenged in the following ways:

- Materiality assessment - where Group engaged with various stakeholders (employees, clients, suppliers) to establish what they see as our responsible business (including climate change) priorities.
- Assessment of responsible business risks, including megatrends - risks are regularly reviewed for significance.
- Responsible Business Forums at divisional level - risks, opportunities and strategic direction is communicated for coherent and consistent uptake across each division.
- Environment forum and information share point at Construction and Infrastructure - a knowledge sharing and learning forum, ensures engagement with carbon reduction plans, amongst others.
- Reporting performance against Total Commitments targets - this ensures that all divisions are reporting on the same metrics or key performance indicators.
- Responsible Business policy - set at Group level.
- Being a decentralised business, each division is responsible for determining how it will deliver against the Total Commitment targets. For example, at Construction & Infrastructure, divisional requirements regarding carbon is set out in their Safety, Health and Environment (SHE) policy.

This allows for two-way communication in achieving, the Total Commitment targets and ensures that there is consistent buy-in across the divisions, with performance being reported back to Group quarterly.

If any inconsistencies are identified then these are followed up by the DSP and divisional heads.

In addition, the DSP works closely with the communications team to produce the following sustainability publications, all of which include information on our strategic objectives, our Total Commitments (including Total Commitment to reducing energy use and carbon emissions):

2018 Responsible Business Report

2018 Annual Report

Group website – [morgansindall.com](http://morgansindall.com)

- At divisional level, for example at our Construction & Infrastructure division, employees receive a monthly newsletter, called Cascade, which contains a sustainability update. Information is provided to keep all employees up to date with progress, initiatives and developments.

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## C12.4

**(C12.4) 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**

In mainstream reports

**Status**

Complete

**Attach the document**

Morgan Sindall Annual Report 2018.pdf

**Page/Section reference**

P0, P33, and P48-49

**Content elements**

- Governance
- Strategy
- Risks & opportunities
- Emissions figures
- Emission targets
- Other metrics

**Comment**

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**C14. Signoff**

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**C-FI**

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

**C14.1**

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**(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	Job title	Corresponding job category
Row 1	Chief Executive Officer	Chief Executive Officer (CEO)

**SC. Supply chain module**

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**SC0.0**

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**(SC0.0) If you would like to do so, please provide a separate introduction to this module.**

Morgan Sindall Group plc is a leading UK construction and regeneration group employing circa 6,400 people. The Group offers support at every stage of a project's life cycle through its six divisions (set out below)

**Construction**

The Group's services include design, new build construction, infrastructure works, fit out, refurbishment and property maintenance in the commercial and public sectors. Our construction teams work on projects of all sizes and complexity, either standalone or through framework agreements and strategic alliances.

**Regeneration**

The Group works in close partnership with land owners, local authorities and housing associations to revive cities with multi-phased, mixed-use developments. These may include new housing, community buildings, shops, leisure facilities and public spaces to help stimulate local economies and provide long-term social benefits.

**Construction & Infrastructure**

Provides infrastructure services in the highways, rail, aviation, energy, water and nuclear sectors, including tunnel design and construction services in education, healthcare, defence, commercial, industrial, leisure and retail. BakerHicks offers a multidisciplinary design and engineering consultancy services.

**Fit Out**

Overbury specialises in fit out and refurbishment in commercial, central and local government offices, further education and retail banking. Morgan Lovell provides office interior design and build services direct to occupiers.

**Property Services**

Provides response and planned maintenance to social housing and the wider public sector.

**Partnership Housing**

Works in partnerships with local authorities and housing associations. Activities include mixed-tenure developments, building and developing homes for open market sale and for social/affordable rent, design and build contracting and planned maintenance and refurbishment.

**Urban Regeneration**

Works with landowners and public sector partners to transform the urban landscape through the development of multi-phase sites and mixed-use regeneration, including residential, commercial and leisure.

**Investments**

Provides the Group with construction and regeneration opportunities through various strategic partnerships to develop under-utilised property assets.

**SC0.1**

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**(SC0.1) What is your company's annual revenue for the stated reporting period?**

	Annual Revenue
Row 1	2972000000

**SC0.2**

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**(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?**

Yes

**SC0.2a**

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**(SC0.2a) Please use the table below to share your ISIN.**

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	GB	008085614

**SC1.1**

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**(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.**

**Requesting member**

National Grid PLC

**Scope of emissions**

Scope 1

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

53

**Uncertainty (±%)**

5

**Major sources of emissions**

Fuel purchases for vehicles. Bulk fuel use in power generation.

**Verified**

Yes

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The sources have been identified as part of the externally verified Achilles CEMARS ISO 14064 standard exercise. All data gathered and presented is from a Group and divisional basis, it is not yet possible to provide detailed breakdown of data on individual projects or customers -a major limitation. A key assumption is that carbon emissions associated with an individual customer are proportional to the turnover achieved and therefore allocation has been on the basis of project turnover as a proportion of overall divisional carbon emission and therefore is a proxy for actual emissions for each project.

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**Requesting member**

National Grid PLC

**Scope of emissions**

Scope 2

**Allocation level**

Company wide

**Allocation level detail**

<Not Applicable>

**Emissions in metric tonnes of CO2e**

9

**Uncertainty (±%)**

5

**Major sources of emissions**

Electricity consumption.

**Verified**

Yes

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The sources have been identified as part of the externally verified Achilles CEMARS ISO 14064 standard exercise. All data gathered and presented is from a Group and divisional basis, it is not yet possible to provide detailed breakdown of data on individual projects or customers -a major limitation. A key assumption is that carbon emissions associated with an individual customer are proportional to the turnover achieved and therefore allocation has been on the basis of project turnover as a proportion of overall divisional carbon emission and therefore is a proxy for actual emissions for each project.

**SC1.2**

**(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).**

Annual Report and Accounts including mandatory GHG reporting

<https://www.morgansindall.com/assets/Uploads/Downloads/2018/016ef1ffb6/annual-report-2018.pdf>

Performance on website

<https://www.morgansindall.com/responsible-business/our-approach/>

**SC1.3**

**(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?**

Allocation challenges	Please explain what would help you overcome these challenges
Managing the different emission factors of diverse and numerous geographies makes calculating total footprint difficult	During one year the Group has around 450 projects at varying stages of completion, which makes the collation of individual project carbon emissions very difficult. Consequently the customer data across the full spectrum of products and services is very difficult and administratively burdensome. Where customers request the carbon footprint of individual projects, or aggregated total emissions, this can be executed, when instructed at the time of work winning. It is important to establish the requirements for reporting at the earliest opportunity so that adequate resources (personnel, financial, ICT, training, time, availability, etc) can be mobilised and allocated appropriately. It should also be noted that for the many thousands of materials and products used during the construction process, that a carbon figure may not be available, presenting the potential for inaccuracy of any reporting. The continuing development of information by supply chain partners and provision of the information to contractors is an area that is progressing, however there are still gaps. In 2018 the Group adopted science-based targets to reduce our carbon emissions, which were validated by the global Science Based Targets initiative. Targets are considered to be science-based if they are in line with the level of decarbonisation required to keep the global temperature increase below 2 degrees Celsius, compared to pre-industrial temperatures. Our new targets, against which we will be measuring our performance from 2019, are set out on page 19 (responsible business - see the above link) Our climate action group, which is independently chaired and whose members represent all divisions, is responsible for developing and achieving validation of our science-based targets. In 2019, the climate action group will be introducing to our divisions the carbon calculator tool they have developed, to help manage our carbon usage and meet our new targets. In 2018 we were one of 11 businesses selected to partner with the Mayor of London's campaign to make London a zero-carbon city by 2050. This will involve reducing our carbon usage and waste generated in our offices and on any project

## SC1.4

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**(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?**

Yes

## SC1.4a

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**(SC1.4a) Describe how you plan to develop your capabilities.**

The Group continues to monitor the situation with regard to carbon foot printing of individual projects and therefore its customers. The carbon footprint of an individual project can be provided, if there is a client requirement for that, with the appropriate resource deployed, as stated above, at contract award stage.

As the subject area evolves and robust and common methodologies for calculation techniques come to the fore, then the company will be in a position to provide enhanced reporting where specific projects and customer requirements can be addressed

## SC2.1

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**(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.**

## SC2.2

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**(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?**

No

## SC3.1

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**(SC3.1) Do you want to enroll in the 2019-2020 CDP Action Exchange initiative?**

No

## SC3.2

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**(SC3.2) Is your company a participating supplier in CDP's 2018-2019 Action Exchange initiative?**

No

## SC4.1

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**(SC4.1) Are you providing product level data for your organization's goods or services?**

No, I am not providing data

## Submit your response

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### In which language are you submitting your response?

English

### Please confirm how your response should be handled by CDP

	Public or Non-Public Submission	I am submitting to	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Public	Investors Customers	Yes, submit Supply Chain Questions now

### Please confirm below

I have read and accept the applicable Terms