2015 CDP

June 2015

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0. Introduction

0.1 Introduction

Group Five is a diversified construction, infrastructure concessions and services group with an international client base engaged in resources, energy and infrastructure delivery. The group operates in South Africa, broader Africa, the Middle East and Eastern Europe. Group Five comprises of four clusters – Investments and Concessions, Manufacturing, Construction, and Engineering and Construction – that work together to create a single offering.

Group Five recognises the impact of its business on surrounding natural environments and understands the opportunities that the low carbon and climate resilient future brings for a resources, energy and infrastructure group. The company operates its business cognisant of the climate change agenda and its presence in future low carbon economies. 2015 is the seventh successive year that Group Five is voluntarily reporting its climate change response to the CDP.

0.2 Reporting Year

01/07/2013 – 30/06/2014

0.3 Country list configuration

South Africa
Namibia
Mozambique
Zimbabwe
Ghana
Democratic Republic of the Congo
Burkina Faso
Tanzania
Hungary
Poland

0.4 Currency selection

ZAR

1. Governance

Group and Individual Responsibility

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

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

1.1a Please identify the position of the individual or name of the committee with this responsibility

Group Five's Executive for Safety, Health, Risk, Environment and Quality, Guy Mottram, has the highest level of direct responsibility for climate change within the company. He reports directly to Group Five's board of directors, and oversees the implementation of:

- Quality management processes;
- The zero harm policy and wellness programmes; and
- The integrated environmental strategy, which incorporates policies to reduce energy and greenhouse gas (GHG) emissions.

Guy Mottram also oversees Group Five's response to all risk exposures, including legal, compliance, safety, competition, expansion and climate change.

Individual Performance

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

Yes

1.2a: Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivised performance indicator	Comment
Chief Executive Officer (CEO)	Monetary reward	Other: reputational value of the company	Group Five's Chief Executive Officer is rewarded with share options based on the reputational value of the company. Group Five's response to climate change plays a role in this reputational value. Reputational value is largely dependent on the perception of stakeholders, who are placing increasing importance on environmental, social and governance issues when considering investment decisions.
Corporate executive team	Monetary reward	Emission reduction projects	Group's Five's Social and Ethics committee is monetarily reward for the successful achievement of the group's sustainability objectives, of which an adequate response to climate change and the implementation of emission reduction projects form part.

Who is entitled to benefit from these incentives?	The type of incentives	Incentivised performance indicator	Comment
Environment/ Sustainability managers	Monetary reward	Emission reduction projects	Group Five's environmental managers are monetarily rewarded for the implementation of green initiatives and GHG emission reductions. These managers are also recognised for creating awareness of Group Five's environmental and climate change responsibilities amongst employees and contractors.
Business unit managers	Monetary reward	Other: Identifying, developing and constructing green buildings and renewable energy projects	Group Five's business unit managers are monetarily rewarded for identifying, developing and constructing green buildings and renewable energy projects.
Risk managers	Monetary reward	Other: Identifying climate change risks and opportunities	Group Five remunerates its risk managers for identifying climate change risks and opportunities, and communicating these risks and opportunities across the group.

2. Strategy

Risk Management Approach

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

Integrated into multi-disciplinary companywide risk management processes

2.1a Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Individual/ Sub-set of the Board or committee appointed by the Board	The geographical areas considered in the climate change risk management are countries where Group Five has an existing operation or is exploring growth opportunities in these countries: South Africa; Namibia; Mozambique; Zimbabwe; Ghana; Democratic	3 – 6 years	The management of climate change related risks is integrated into Group Five's corporate risk management strategy. Risk management is conducted on both a corporate level, as well as on a project by project basis. The scope of this risk management process includes (amongst others) climate change risks relating to physical aspects,

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
		Republic of the Congo; Burkina Faso; Tanzania; Hungary; and Poland.		regulatory aspects, market behaviour, and customer perception. Risks are considered over the life of each site and each project/contract.

2.1b Please describe how your risk and opportunity identification processes are applied at both company and asset level

Company level:

To assist with assessing risks and opportunities at a company level, Group Five (G5) has implemented a Total Quality Management System that underpins every aspect of its operations and reinforces the centrality of sustainability and climate change to the business. G5's Executive for Safety, Health, Risk, Environment and Quality is responsible for risk management at the corporate level. The executive reports risks and opportunities directly to the Board who is ultimately responsible for overall risk management.

G5's Green Team was established to assess the impact of climate change on its business. This Team also shares best practices and green initiatives across the company, and reports on climate change risks and opportunities to G5's Board of Directors. The risks and opportunities that are considered with regards to climate change are those driven by regulation, changes in physical climate parameters and changes in other climate-related developments.

Asset level:

G5's climate change risks and opportunities are assessed at an asset level for (a) all projects and sites (95% of the business), and (b) fixed operations and facilities (5% of the business). For new projects and sites, risks and opportunities inherent to each potential project are identified by the Risk Committee during the tendering phase of a project. A comprehensive review of commercial, financial, technical, operational, SHEQ and climate issues is performed prior to approving the project. This is the main focus and risk area. Monthly contract and project review meetings are used to monitor and report progress on potential climate related risks and opportunities for projects and sites. Each site has an Environmental Site Officers responsible for management of climate change risk and opportunities on-site. The group has an established enterprise risk management framework that allows management and the Board to analyse data related to climate change risks and opportunities for individual projects and sites. Risks and opportunities for fixed operations and facilities are assessed by the Green Team.

2.1c How do you prioritize the risks and opportunities identified?

Climate change risk and opportunity matrices are created as part of Group Five's integrated risk management process, and are based on the identification of risk and opportunity drivers. Risk drivers are any types of events that have the potential to disrupt business and impact local communities, have financial implications, or influence asset optimisation. Opportunity drivers are those events that have the potential to improve operations, allow for the diversification of business, or increase revenue.

The potential impacts associated with each climate change risk/opportunity driver are identified and rated separately. The risk/opportunity items are assessed with regards to the probability, severity, and consequence.

Each of the abovementioned criteria have a pre-specified classification of potential with a different value attributed. These factors are multiplied together to get a total rating value for each item, known as the inherent risk/opportunity that Group Five faces if it does not take action. The inherent risk/opportunity rating is then recalculated based on actions already taken by Group Five – this is known as the residual risk/opportunity. If the residual risk is still considered unacceptably high, then the risk is prioritised and further action is taken. In contrast if the residual opportunity is still high, then Group Five prioritises the opportunity to exploit in the year based on its financial viability.

Business Strategy

2.2 Is climate change integrated into your business strategy?

Yes

2.2a Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

i. Group Five's business strategy has been influenced by climate change on a number of levels:
   - To source new business and projects from opportunities generated by both climate change mitigation (renewable energy, green buildings, etc.) and by climate change adaptation (infrastructure projects, etc.);
   - To optimise existing projects with respect to climate change mitigation (fuel efficiency on site) and adaptation (safeguarding sites against flash floods, etc.); and
   - To optimise fixed operations with respect to climate change adaptation (the head office has been certified as a green buildings) and mitigation (vehicle fleet fuel efficiency).

   The Green Team, which consists of champions in each of the operating divisions, are responsible for identifying climate change risks and opportunities. The Green Team has monthly meetings to monitor and review climate change risks and opportunities, and highlight issues of importance. The Group Risk Officer, who forms part of the Green Team, reports to the Board. Every six months the Board and executive committee consider any potential changes that are required in response to climate change.

   The Green Team is also then responsible for communicating Group Five's climate change strategy within the company. Communication of green initiatives is done via the 'Green Page' on the company intranet and monthly internal newsletters. Each champion is responsible for implementing and tracking performance of green initiatives within their own operating divisions. Annual feedback meetings with the heads of business units on the GHG inventory results and progress of the specific business unit also aid in communicating climate change related risks and opportunities.

ii. Market developments influenced by climate change regulation and global climate change perceptions have influenced the strategy of Group Five significantly - the global move to a carbon-constrained economy provides opportunities for business development in construction and low carbon energy solutions. Opportunities like the increased demand for green buildings and renewable energy resulted in Group Five dedicating two teams under the business unit 'Engineering and Construction' for the identification and implementation of these types of projects. The decision to establish these teams was underpinned by the ambitious emission reduction targets pledged by South Africa and the barriers

associated with development of renewable energy projects. These teams have a goal to secure as many projects as possible under the South African Renewable Energy Independent Power Producers Procurement (REIPPP) programme.

Physical climate change aspects (such as extreme weather events, extreme temperatures and changes in precipitation) and regulatory climate change aspects (such as the imminent carbon tax and increased fossil fuel prices) have also influenced the strategy. Group Five's long term contracts are carefully worded to reduce weather related costs/penalties, and projects are suitably insured for cover such impacts if they occur. With respect to projects currently in the books, the strategy has been adapted to take cognisance of increased energy costs (either direct cost or as a result of increased costs passed down via the supply chain) and the potential impact of the proposed carbon tax for South Africa.

iii. Group Five's short term climate change strategy (<5 years) is aimed at positioning the business as the leading 'green building' construction company. Group Five believes that it can leave a legacy of buildings that not only aid in mitigating climate change, but also are built to withstand a changing climate. Group Five's has employees that are actively involved in the development of the Green Building Council of South Africa's (GBCSA) rating tools, and the company also has an employee on the board of the GBCSA. Group Five's marketing strategy has also been adopted to capitalise on promoting their leadership in the green buildings industry. Group Five has also moved its head office to a new five star green building in Waterfall Estate, Johannesburg.

iv. Group Five's long term strategy (5-10 years) is to invest in opportunities that are presented by climate change, such as renewable energy, energy generation from waste, independent power producers and nuclear readiness. Group Five has two dedicated teams for identification and implementation of these projects:
- A division of Infrastructure Development Services responsible for the development of renewable energy projects and bidding into the REIPPP government program; and
- A division of Engineering & Construction to be involved as a contractor in the construction of renewable energy projects.

v. Group Five is gaining a strategic advantage over its competitors by:
- Effectively preparing for future legislations. Group Five's voluntary response to the CDP, coupled with 7 years of carbon footprint experience and external emissions verification, means that the group is well placed to meet South Africa's proposed GHG and energy reporting legislations.
- Group Five has incorporated the potential financial implication of carbon tax on its South African projects and operations into all contracts, making the company well positioned to meet government's future tax regulations.
- Group Five's extensive renewable energy portfolio in South Africa optimises energy usage and manages energy costs.

vi. The most substantial business decisions made in this reporting year were to:
- Complete construction of 5-star green office building in Waterfall Estate, Gauteng. All Group Five divisions which were previously located in numerous office buildings across the province will now be housed in this new green building, thereby reducing energy consumption and costs.
- Investment in energy efficiency and renewable energy projects that result in GHG emission reductions.

2.2c Does your company use an internal price of carbon?

Yes

2.2d Please provide details and examples of how your company uses an internal price of carbon

South African operations:

Group Five introduced carbon pricing into its business in 2010, when they started to investigate CDM opportunities. Group Five currently has an internal price of carbon that is linked to the proposed South African carbon tax, which is set for implementation in 2016.

According to the draft policy paper that was released for public comment in May 2013, South Africans will be taxed at a rate of R 120 per tCO_2e emitted, which will escalate at 10% per annum over the following five years. A tax free-threshold of 60% has been incorporated into the proposed design, which can be increased to 90% (through the access of relief mechanisms). This means that the effective tax rate could range between R 12/tCO_2e and R 48/tCO_2e. Group Five has conservatively applied the higher carbon taxation rate (of R 48/tCO_2e) as its internal price of carbon.

Whilst South Africa's carbon tax is designed to only tax an entity's direct (Scope 1) greenhouse gas emissions, Group Five recognises that with the introduction of the tax, the company may also experience increased costs in electricity, goods and services as a result of suppliers passing through their own carbon tax liability. Therefore, Group Five has applied a rate of R 48/tCO_2e to emissions throughout its value chain i.e. Group Five has applied an internal price of carbon to its direct (Scope 1), energy indirect (Scope 2) and other indirect (Scope 3) emissions.

European operations:

Group Five has Intertoll operations in Poland and Hungary. In Poland, a carbon price has already been imposed through an explicit carbon tax of EUR 0.065/tCO_2e. Group Five has introduced this taxation rate as the company's internal price of carbon. Hungary has followed the EU ETS carbon price signal which was effective in encouraging companies to build capacity in response to a carbon price. However the EU ETS in Hungary has not yet led to significant emissions abatement or the development of a carbon tax. Group Five is closely monitoring carbon tax development in Hungary which will, in turn, define the company's internal price of carbon for Hungarian operations.

The use of an internal carbon price by Group Five, has assisted with investment decisions when considering new projects. During the tender stage of new projects, Group Five takes into account the electricity and fuel cost for the project incorporating the potential price of carbon into the pricing schedule, thereby passing the additional tax costs through to the client. This however, makes contracts more expensive and can reduce competitiveness. Therefore for Group Five to remain competitive it has to reduce its direct emissions and non-renewable electricity usage, or reduce the profit margin on projects. For this reason Group Five established the Energy business division (within the Engineering and Construction Cluster) to identify and implement renewable energy projects.

Engagement with Policy Makers

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

X Direct engagement with policy makers

2.3a: On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Carbon Tax	Support with minor exceptions	The most significant climate policy affecting Group Five's business is the impending South African carbon tax. The implementation of this tax has been delayed by one year to 2016 allowing adequate time to: – Align the tax with the country's proposed desired emission reduction outcomes; and – Ensure adequate time for consultation on draft legislation. Group Five understands the need to implement a carbon tax to reduce the country's carbon footprint. However, its view is that the method of taxation should balance the country's tax needs with industry's need to remain competitive (which is crucial to encouraging further investment in the South Africa, especially in the construction sector). Group Five has been engaging directly with National Treasury regarding the proposed South African carbon tax. The company has commented on Carbon Tax Policy Paper, and has also participated in the carbon tax impact study by National Treasury to establish how local companies have responded to higher electricity prices and their ability to respond to further electricity price increases.	Group Five is concerned over the lack of clarity on the country's climate change strategy and what government is seeking to achieve in terms of climate change mitigation per sector. A customised sectoral climate change mitigation plan for the construction industry has not yet been developed It is difficult for construction firms, including Group Five, to develop a low carbon strategy within the uncertain regulatory environment. Border tax is another issue of concern. For large construction projects, Group Five can either import or purchase local material (e.g. cement and steel). A carbon tax on input material will put local producers at an uncompetitive disadvantage, and favour inputs from producers elsewhere. Suggested border tax adjustments and trade tariffs are not clearly defined in the carbon tax papers to date.

2.3b Are you on the Board of any trade associations or provide funding beyond membership?

No

2.3d Do you publicly disclose a list of all the research organizations that you fund?

Yes

2.3e Do you fund any research organizations to produce or disseminate public work on climate change?

Yes

2.3f Please describe the work and how it aligns with your own strategy on climate change

Group Five has been a member of South Africa's National Business Initiative (NBI) since 2009. The NBI is a voluntary coalition of South African and multinational companies that are committed to working towards sustainable growth. Amongst other responsibilities, the NBI disseminates information on best practices and companies' responses to a changing climate. In the reporting year, Group Five participated in the NBI's study that aimed to understand how South African businesses are adapting to climate change.

Through the study, Group Five responded to pertinent questions around climate change adaptation such as:

- What is the impact of climate change on your organisation?
- What mechanisms are used to identify climate change related risks within your organisation?
- What approaches are used to identify, prioritise and implement your organisation's adaptation initiatives?
- What initiatives are planned or have been implemented to ensure adaptation of your organisation to the impacts of climate change?
- What are the barriers to implementing adaptation planning?
- What has been the key learning for your organisation in terms of adaption planning?

Group Five's response to this questionnaire was included in a full report that was published by the NBI in June 2015, titled 'A new climate of risk: How South African businesses are adapting to climate change'. The aim of this report was to provide information to companies starting their journey towards climate change adaptation on key themes such as:

- Adaptation planning barriers; and
- Emerging and best practice adaptation measures.

This report aligns with Group Five's strategy on climate change as the company understands that it is made more vulnerable as a result of a changing climate, but there are also business opportunities in the adaptation space. For example, it is anticipated that R 950 billion needs to be spent annually in Africa to improve infrastructure in order to adapt to climate change. R 827 billion has been budgeted in South Africa to build new and upgrade existing infrastructure between 2014 and 2016. This amounts to R 537 billion is in the energy sector, R 151 billion in transport and logistics projects, and R35 billion for building dams and pipelines. Group Five is capitalising on this adaptation opportunity by creating a Strategic Project Development team to achieve earlier positioning for longer term large infrastructure contracts. Group Five is anticipating a 5 - 7% growth in investment for infrastructure projects in Africa over the next year.

2.3h What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Group Five's strategy in response to climate change is to engage with government in the development of policies and strategies to address energy efficiency and greenhouse gas reductions. Group Five forms part of the voice of the construction industry at monthly business meetings through the Business Unity of South Africa (BUSA).

Group Five's Executive for Safety, Health, Risk, Environment and Quality, Guy Mottram, is responsible for the oversight of Group Five's climate change response strategy, and also coordinates the company's direct/indirect

engagement with government on climate change related policy. This ensures that Group Five's direct and indirect activities that influence policy are consistent with the company's overall climate change strategy.

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

Yes

2.4a Please describe your board's position on what an effective agreement would mean for your organization and activities that you are undertaking to help deliver this agreement at the 2015 United Nations Climate Change Conference in Paris (COP 21)

Group Five is supportive of an international agreement between governments on climate change. Group Five recognises that such an agreement will provide the global community with certainty, clarity and confidence to make greener investments in the transition towards a low carbon and climate resilient society. This global transition will support Group Five's long term strategy to grow its business towards renewable energy construction projects.

Group Five is undertaking the following activities to help deliver this agreement:

- Demonstrating the company's leadership on climate change issues:
  Group Five is investing in the opportunities that are presented by climate change, such as renewable energy, energy generation from waste, independent power producers and nuclear readiness. Group Five has established two dedicated teams for identification and implementation of renewable energy projects.

- Lobbying responsibly for effective climate policies:
  Group Five has been engaging directly with National Treasury regarding the proposed South African carbon tax. The company has commented on Carbon Tax Policy Paper, and has also participated in the carbon tax impact study by National Treasury to establish how local companies have responded to higher electricity prices and their ability to respond to further electricity price increases. Group Five understands the need to implement a carbon tax to reduce the country's carbon footprint. However, their view is that the method of taxation should balance the country's tax needs with industry's needs to remain competitive (which is crucial for encouraging further investment in South Africa, especially in the construction sector).

- Joining other companies that are seeking to create and commercialise low-carbon solutions:
  Group Five has partnered with Iberdrola, Spain's leading energy group, to develop renewable energy projects across South Africa. The Joint Venture between Group Five and Iberdrola has already constructed a 96 MW solar photovoltaic plant in Postmasburg in the Northern Cape; a 74 MW wind farm in Noblesfontein; and a 27 MW wind farm in Klipheuwel.

3. Targets and Initiatives

Targets

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

No

3.1e: Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

i. Group Five is a diversified construction services, materials and infrastructure investment group. Therefore, its overall GHG inventory can be correlated to a number of construction projects and contracts in a given year. Group Five's service offerings range from the manufacturing of construction materials at fixed sites (fibre cement, piping, fencing, etc.), to temporary construction work throughout Africa. Group Five also partners with various firms on large infrastructure projects, and leases buildings for temporary work. This not only makes the calculation of Group Five's GHG inventory a complex undertaking, but also makes the setting of targets for these operations an even more difficult task. With regards to Group Five's temporary/project-based construction work, the GHG inventory of each project is directly linked to its design which is dictated by the client. As such, Group Five does not have direct control of the GHG emissions from its project-based contracts.

   GHG inventory calculations in the project-based construction industry are significantly more complex than for fixed operations. There is currently no international consensus on a GHG accounting approach for project-based construction. The major challenges lie in setting organisational and operational boundaries for complex projects built by consortiums and joint ventures (a common practice in the mega-projects Group Five is involved with). Furthermore the alignment of greenhouse gas accounting systems for projects where the participants have different approaches due to the lack of standards can also be challenging. These challenges are further exacerbated by the split incentive barrier where the client (and ultimate owner of the project) has the biggest impact on the emissions through the design specifications, but classifies the project's emissions as 'indirect emissions' and therefore has little incentive to reduce them.

   In this reporting year, Group Five contracted a carbon consultancy firm to develop a GHG Management Handbook in order to improve the consistency of GHG emission calculations. This Handbook will be applied in conjunction with a new 'green' system that will calculate emissions based on data captured in Group Five's financial system. This 'green' system has been integrated into the current financial system. This will ensure better measurement techniques are applied which will, in turn, result in better GHG management.

ii. Group Five is working towards the development of emission reduction targets for its fixed sites. It is anticipated that absolute emissions could be reduced by as much as 3% over the next five years, with 2012 as a base year. Whilst it is more complex to anticipate changes in absolute emissions for Group Five's project-based construction work, Group Five is working towards reducing the emission intensities of these operations over the next five years, as this will result in reduced costs.

Emissions Reduction Initiatives

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

Yes

3.2a Please provide details of how the use of your goods and/or services directly enables GHG emissions to be avoided by a third party

Group Five's services directly enable GHG emissions to be avoided by a third party in three ways:

1. Construction of green buildings:

(i) Emissions are avoided by customers utilising the green buildings constructed by Group Five. On average, green buildings are expected to save between 30-50% of energy (and therefore emissions) through their lifetime when compared with conventional buildings. Group Five is a founding member of the Green Building Council of South Africa (GBCSA). GBCSA aims to play a leading role in the transformation of the South African property industry ensuring buildings are designed, built and operated in an environmentally sustainable way. Group Five has constructed the following certified green buildings over the last five years:

- Nedbank Phase 2 in Sandton (4 star)
- Waterfall Office Park (5 star)
- DStv City (4 star)
- Cell C Campus (5 star)

(ii & iii) When compared to conventional buildings, and assuming an average of 60 years lifetime for a building, the average avoided emissions of a new green office building over its lifetime is estimated to be +/- 320,000 tCO_2e. This is calculated based on the assumption that each green building saves, on average, 50% of electricity compared to a conventional building. In South Africa power is generated by means of coal-fired power stations which have a grid emission factor of 1.03 tCO_2e/ MWh.

2. Solar water heaters:

(i) Group Five has a 25% share in Kayema, a solar energy system manufacturer which specialises in solar water heaters. Emissions are avoided by customers using solar water heaters instead of conventional electrical geysers.

(ii & iii) An average solar water heater saves between 1 – 2 MWh of grid electricity. Assuming that each heater operates for 4 hours each day, and applying the South African grid emission factor of 1.03 tCO_2e/ MWh, each solar water heater can save an average of 1,500 tCO_2e per annum.

3. Renewable energy plants:

(i) Group Five is also involved in the development of renewable energy projects. In consortium with Iberdrola, Group Five will build two wind farms and two photovoltaic plants in South Africa with a total project cost of €265 million. The facilities to be built are the Dassiesklip wind farm (26.19 MW), the Jeffery's Bay wind farm (133.86 MW), the De Aar photovoltaic plant (48.25 MW) and the Droogfontein photovoltaic plant (48.25 MW). The plants will have a combined power generation potential of 257MW.

(ii & iii) For every 1 MWh of renewable energy generated, 1.03 tCO_2e will be avoided by displacing an equivalent amount from the South African electricity grid. Assuming an average capacity factor for the wind and solar plants of 50%, these combined plants can achieve emissions savings of 1.16 million tCO_2e for every year of operation.

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

Yes

3.3a Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO_2e savings

Stage of development	Number of projects	Total estimated annual CO_2e savings in metric tonnes $CO2e$ (only for rows marked *)
Under investigation	0	Not applicable
To be implemented*	2	6600
Implementation commenced*	1	1000
Implemented*	4	34060
Not to be implemented	0	Not applicable

3.3b For those initiatives implemented in the reporting year, please provide details in the table below

Activity Type	Description of activity	Estimated annual CO2e savings	Scope	Voluntary / Mandatory	Annual monetary savings	Investment required	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Building fabric	In the reporting year, Group Five moved its head office to a new 5-star certified green building in the Waterfall Estate in Midrand. This building was designed to reduce electricity consumption in all areas – from the installation of ammonia chillers which operate at higher levels of efficiency than conventional chillers, to the installation of occupancy sensors and energy meters to monitor energy use and identify unusual or excessive consumption. The voluntary move to the new 5-star green building has reduced Group Five's annual electricity consumption by 50% (2000 MWh per annum).	2,060	Scope 2	Voluntary	2,000,000	500,000,000	21-25 years	>30 years	Group Five's new head office is one of only seven buildings in Gauteng to receive a "5-Star Green Star SA – Office Design v1" rating by the Green Building Council of South Africa (GBCSA).
Transportation: fleet	In the reporting year, Group Five implemented a voluntary initiative to reduce the fuel consumption of its vehicle fleet in Ghana. This project involved the planning and pre-approval of all trips, route optimisation, vehicle maintenance, and education on the relationship between fuel economies and driving behaviour. This initiative has reduced the total vehicle fleet's diesel consumption by 1000 litres per month, thereby reducing Group Five's direct (Scope 1) emissions.	32,000	Scope 1	Voluntary	144,000	0	< 1 year	Ongoing	This voluntary initiative requires no capital investment as it is based on behavioural changes.

Activity Type	Description of activity	Estimated annual CO2e savings	Scope	Voluntary / Mandatory	Annual monetary savings	Investment required	Payback period	Estimated lifetime of the initiative	Comment
Low carbon energy installation	In the reporting year, Group Five installed solar panels on the roof over the lanes and collection booths at a toll plaza near Bulawayo, Zimbabwe. These solar panels charge two battery banks for night time power, thereby reducing electricity consumption and Group Five's Scope 2 emissions.	313	Scope 2	Voluntary	425,000	400,000	<1 year	16-20 years	N/A
Energy efficiency: Building services	In the reporting year, Group Five changed the lighting at the toll booths near Bulawayo, Zimbabwe from conventional metal halide lamps to LEDs. This has halved the sites electricity requirements, thereby reducing Group Five's Scope 2 emissions.	45	Scope 2	Voluntary	50,000	70,000	1-2 years	11-15 years	N/A

3.3c What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Lower return on investment (ROI) specification	From a capital investment perspective, projects delivering energy savings and greenhouse gas emission reductions are prioritised within Group Five. This prioritisation is motivated by Group Five's need for long term sustainability and to mitigate climate change risks.

4. Communications

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

Publication	Status	Page/Section reference	Attach the document
In mainstream financial reports but have not used the CDSB Framework	Complete	Page 99 Environment	Attached
In voluntary communications	Complete	Supplementary Information to the Integrated Annual Report 2014: Page 38 Governance Regulatory Environment – Carbon Tax Policy Paper 2013; Page 124 – 129 Environment;	Attached
In voluntary communications	Complete	Solar panels power world's first off-grid toll plaza: The whole article relates to climate change and GHG emissions performance.	Attached

5. Climate Change Risks

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

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

5.1a Risks driven by changes in regulation

Risk Driver	**Carbon taxes and Mandatory Reporting**
Description	South Africa recognises the importance of creating a framework for the transition to an environmentally sustainable, low-carbon economy. As such, the country is currently designing a suite of climate-change mitigation measures to reduce GHG emissions. The most notable of these measures is the proposed national carbon tax, set to be implemented by National Treasury in 2016. Group Five perceives the proposed South African carbon tax as a risk due to the high level of uncertainty surrounding the following: – There has not yet been clarification on the lower limit of direct carbon emissions emitted per company that will result in payment of carbon tax. Group Five therefore faces the risk of paying carbon tax on their direct emissions. – Eskom (South Africa's electricity utility) will also be exposed to the proposed carbon tax. According to the current electricity pricing policy Eskom could pass through their tax liability to the consumer. Therefore Group Five may be at risk of paying increased electricity tariffs. The carbon tax regulation aims to include relief mechanisms to protect both vulnerable business sectors and the competitive position of industry within South Africa. At present relief mechanisms are still under review and are only available for direct (scope 1) emissions. Therefore Group Five may face the risk of not being able to use relief mechanisms for electricity-related emissions (scope 2). Apart from carbon tax, legislation surrounding mandatory reporting in South Africa also poses a risk to Group Five. The following amendments were made in March 2014 to the National Environmental Management: Air Quality Act (Act 39 of 2004): – Declaration of Greenhouse Gases as Priority Pollutants; – Publishing of National Pollution Prevention Plans (PPP) Regulations; These regulations require any company emitting GHGs in excess of 100,000tCO_2-eq annually, to prepare, submit and implement a PPP. Group Five is exposed to this risk due to the following uncertainties:

	– Boundaries have yet to be clearly defined; – The scope of the emissions included remains unclear; – Although the draft regulations do not currently mention penalties for non-compliance, there is a possibility that this may change in the future which could introduce further risk to Group Five.
Potential Impact	Increased operational costs
Timeframe	Up to 1 year
Direct / Indirect	Direct
Likelihood	Likely
Magnitude of Impact	Low – Medium
Estimated Financial Implications	Group Five's direct (scope 1) emissions are approximately 80,000 tCO_2e which could result in a carbon tax of R 3.8 million. The estimated financial figure is based on the value of carbon R120/tCO_2e with a 60% tax-free exemption threshold as published in the May 2013 Carbon Tax Policy Paper). In terms of electricity-related (scope 2) emissions Group Five's annual electricity costs could increase by R 2.7 million. In the event that Group Five can access the relief measures for electricity-related emissions, this could reduce to R 2.0 million.
Management Methods	Group Five is managing the risk of carbon tax by investigating an automated tracking and reporting system which will be integrated with Group Five's accounting system. This system aims to manage the information required to calculate the proposed taxation liability before the expected implementation date of carbon tax. In addition Group Five is engaging with National Treasury for a carbon tax that is reasonable which does not hinder international competitiveness. Group Five is also pricing the known cost of electricity and fuel into the cost of projects at the tender stage, and during project execution, thereby passing the additional tax costs through to the client. This however, makes contracts more expensive and can reduce competitiveness. For Group Five to remain competitive it has to reduce its direct emissions and non-renewable electricity usage, or reduce the profit margin on projects.
Cost of Management	The costs of managing carbon tax with National Treasury are carried in house. There is no direct cost for managing this risk associated with incorporating increased operating costs into the contracts.

Risk Driver	Renewable Energy Regulation: Uncertainty surrounding REIPPP
Description	Climate change is one of the key drivers for the development of the Renewable Energy Independent Power Producer Procurement (REIPPP) Programme in South Africa. This programme has, however, suffered from unexpected delays and uncertain deadlines in the financial close of rounds for submitting bids. Financial closure for the first round was delayed twice. In December 2014 the fourth round of bids was put on hold after the third round preferred bidders suffered further delays in reaching financial close. These delays put strain on project developers in terms of extended costs that were initially not planned for and increased the risk of losing contractors. It also affects international credibility and investor confidence in South Africa's renewable projects. The winning bids of the fourth round were announced in April 2015. In addition an expanded round four will allow all unsuccessful bids from the first four windows to be re-evaluated with the intention of selecting additional projects with a capacity for another 1,800 MW. This uncertainty in the REIPPP process impacts operational cost of the Engineering and Construction team within Group Five, seeing as this is a team dedicated to the development of renewable energy projects and securing them for the REIPPP process. Group Five also runs the risk of a project submitted not being selected to form part of the REIPPP programme, which results in losses for the company in terms of resources spent to complete the bid documents.
Potential Impact	Increased operational costs
Timeframe	Up to 1 year
Direct / Indirect	Direct
Likelihood	Likely
Magnitude of Impact	Medium
Estimated Financial Implications	On average, a tender under the South African REIPPP process costs Group Five approximately 1,500 man-hours which translate to a cost of roughly R 750,000 per tender. Delays in the bid process means having to re-allocate resources, which may impact on other opportunities that could have been tendered for.
Management Methods	Group Five is managing the risks of delays to the REIPPP process by only tendering for projects that have the best chance of being awarded. This is not always possible as even the best opportunities are delayed or cancelled at times.
Cost of Management	There is no additional cost associated with managing this risk, as the identification of the best tenders are already inherent to the business division under the Engineering and Construction business cluster. Group Five continuously works towards streamlining the tender process to reduce costs.

5.1b: Risks driven by changes in physical climate parameters:

Risk Driver	Other: Precipitation and Temperature Extremes
Description	The IPCC Working Group II Fifth Assessment Report (2014) states that: – Climate change will exacerbate currently dry regions and result in decreased rainfall and increased frequency of droughts by the end of the century; – This will cause a decrease in surface water and groundwater; – The mean annual temperature will rise 2 ºC for Africa relative to the late 20th century mean annual temperature; and – Variations in flood frequencies will increase as a result of climate change in tropical regions of Africa. As a result Africa is one of the most vulnerable continents to climate change. Group Five has extensive operations across Africa, and are increasingly aware of the impact that climate change will have on the continent. High precipitation extremes coupled with low evaporation rates pose a significant risk to Group Five's business operations, particularly when working on projects in the rest of Africa where storm water infrastructure is generally limited. These high precipitation extremes can impact on Group Five's construction projects in the following way: – Increased costs; – Increased 'lost days' than what was originally provided for in the contract; – Reworking certain parts of a project due to storm damage; and – Logistical risks with regards to the supply of material, water and energy. During 2014, the Ghanaian operations of Group Five experienced above average rainfall which resulted in work stoppages of 2-3 hours per day. Further to this working conditions are impacted by daily temperatures of 35°C with 92% humidity, which reduces the productivity of the workforce.
Potential Impact	Reduction/disruption in production capacity
Timeframe	Up to 1 year
Direct / Indirect	Direct
Likelihood	Very likely
Magnitude of Impact	Medium
Estimated Financial Implications	On average a 'lost day', above that which is provided in the construction contracts, is estimated at a loss in revenue for Group Five of R 700,000 per day. In Ghana the above average rainfall and high temperatures experienced during 2014 resulted in project delays costing +/- R 8,900 per month based on 2 – 3 hours of stoppages for the occasional days disrupted. In addition disruptions also decrease the productivity of the work force which imposes a cost of R 100/person/shift, which contributes to a 0.4% increase in production costs.

Management Methods	Group Five is managing the risk of a change in precipitation and temperature extremes on three fronts: 1. Group Five's Risk Committee consults the local weather bureau and assesses the specific weather patterns of in the region of the site prior to tendering and approving a project. This process considers the climate change projections based on the latest climate change science. During this assessment the average amount of rainy days are determined and drafted in to the contract with the client. 2. By implementing a Storm Water Management system at all of its construction sites. The Storm Water Management system is in line with Section 2 of the National Environmental Management Act and the Department of Water Affairs' minimum regulations. The system involves assessing the expected flow rate and channels of water at each construction site and then building silt management structures. These structures are maintained regularly and inspected after extreme rainfall events. 3. By incorporating clauses relating to extreme rainfall patterns in construction contracts. In the contract with the client it is stated that, if it can be proven by Group Five that there is substantial variance from the planned amount of rainy days, this additional cost of non-working days will have to be covered by the client. Specifically in Ghana, daily recordings are kept for projects sites and hours delayed are negotiated and claimed back from the clients.
Cost of Management	1. The cost of building specific silt management structures is estimated at R 50,000 per site. 2. There is no additional cost to incorporate rainfall clauses into contracts. This process is a standard and compulsory step for each contract. 3. There are currently no associated cost related to the regular heat testing programmes.

Risk Driver	Other physical climate drivers: High wind speeds
Description	The IPCC (2014) predicts an increase in extreme climatic events. It is predicted that storms will increase in frequency and intensity. Such storms may lead to increased wind speeds. Southern African coastal regions are exposed to cyclones and storm surges which can result in significant damages, as seen in Durban during March 2007. High wind speeds can have detrimental impacts for Group Five's construction sites. Group Five uses cranes in most of its construction projects to lift and move construction materials around the site. Operating a crane in windy conditions can create a potentially dangerous situation. The wind forces imposed on both the crane and the load can affect the strength and stability of the crane and its ability to safely handle the load being lifted. If the wind speed doubles, the wind pressure increases by a factor of four times which makes operating them at elevated wind speeds a safety hazard (Safe Working Practice: Occupational Health & Safety Group). Climate change is likely to change the dynamics of winds, both on a global scale at high altitudes and in a local level at low altitudes. These changing winds are likely to have a negative impact on Group Five's construction projects and, as such, pose a risk to their business.
Potential Impact	Reduction/disruption in production capacity
Timeframe	Up to 1 year
Direct / Indirect	Direct
Likelihood	About as likely as not
Magnitude of Impact	Low
Estimated Financial Implications	Being unable to work in windy conditions imposes delays to projects. On average a 'lost day', above that which is provided in the construction contracts, is estimated at a loss in revenue for Group Five of R 700,000 per day.
Management Methods	Group Five manages this risk by ceasing all construction site operations when wind conditions become dangerous. This would result in Group Five delaying projects. As a management method, Group Five includes 'lost days' clauses in all project-based construction work.
Cost of Management	There are no additional costs associated with this management method.

5.1c: Risks driven by changes in other climate-related developments:

Risk Driver	Reputation
Description	Group Five aims to build a globally competitive company that supports sustainable construction across South Africa, the rest of Africa, the Middle East and Eastern Europe. This is Group Five's core value – a value which is strongly linked to how the company is viewed by its investors and shareholders. Climate change is one of the factors that can pose a risk to Group Five's reputation. Group Five is exposed to an investor reputational risk if the company is not seen to be adequately responding to regulatory and physical climate change risks that it is exposed to. This can potentially restrict the company from operating at 'business as usual' levels. Customers may therefore not view Group Five as the construction provider of choice. Furthermore, the lack of reputation in this regard could also prevent Group Five from gaining financial support when required, and business partnerships in the construction sector could be negatively affected. Whilst Group Five is currently viewed as a leader in the construction industry, this reputational risk may pose a risk in the future as climate change impacts are predicted to worsen.
Potential Impact	Reduced stock price
Timeframe	Up to 1 year
Direct / Indirect	Direct
Likelihood	More likely than not
Magnitude of Impact	Medium
Estimated Financial Implications	Implications resulting from Group Five not adequately mitigating/adapting to climate change may result in a decline in Group Five's share price. With that said it is difficult for Group Five to approximate the possible financial implication that this will have, Group Five anticipates that the impact on their share price will intensify as regulation accelerates and the impact of climate change becomes more visible. A 1% drop in Group Five's share price will decrease market capitalisation by R 31.9 million.
Management Methods	Group Five is managing its reputation in response to climate change using the following methods: 1. Group Five has been a member of South Africa's National Business Initiative (NBI) since 2009. The NBI is a voluntary coalition of South African and multinational companies that are committed to working towards sustainable growth. Amongst other responsibilities, the NBI disseminates information on best practices and companies' responses to a changing climate. In the reporting year, Group Five participated in the NBI's study that aimed to understand how South African businesses are adapting to climate change. 2. Incorporating climate change into its risk management process, and communicating the results of these assessments to the Group Five

	board. The board then adopts a top-down approach to address risks and prioritise opportunities. 3. Creating short and long term strategies in response to climate change. Group Five's short term strategy is geared towards increasing its portfolio of green buildings, whilst its long term strategy is focused on the development of its renewable energy business. Group Five plans to build 1000 housing units in North Ghana under the Savannah Accelerated Development Authority, with the aim of partnering to produce solar energy. In addition, Group Five completed the rehabilitation of 828km road between Plumtree and Mutare in Zimbabwe. The road had been degraded by weather events and lack of maintenance. Rebuilding the road assists with reducing emissions from cars travelling on the road due to increased fuel efficiency. 4. Communicating its emissions performance and climate change strategy to its investors in annual reports and voluntary communications. 5. Continuing to voluntarily respond to the CDP.
Cost of Management	1. The cost of the NBI membership during 2014 is confidential. 2. The cost for conducting climate change risk assessments is carried in house. 3. The cost of creating short and long terms strategies are covered in Group Five's annual budget. The cost of the rehabilitation of 828km road between Plumtree and Mutare in Zimbabwe was R 2.4 billion. 4. Zero additional costs are incurred for communicating Group Five's emissions performance and climate change strategy to its investors. 5. Cost for responding to the CDP in the reporting year was R 200,000.

6. Climate Change Opportunities

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

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

6.1a Opportunities driven by changes in regulation

Opportunity Driver	**Other: Clean Development Mechanism (CDM) projects that can be used as carbon offsets**
Description	In May 2013, South Africa's National Treasury released a draft Carbon Tax Policy Paper for public comment. According to this Policy Paper, companies that will be legislated to pay carbon tax may be able to increase their tax-free threshold by between 5% and 10% through the purchase of carbon offsets. The design of South Africa's carbon offset scheme was further elaborated upon in the draft Carbon Offsets Paper released in April 2014. This Paper proposed that carbon offset projects that are developed under the Clean Development Mechanism (CDM) may be eligible to offset carbon tax liability. This presents Group Five with an opportunity to develop and construct CDM projects for clients. These clients can then not only benefit from environmentally friendly technology, but also from additional revenue from the sale of carbon offsets. Group Five has already constructed three CDM projects including: 1. The capture and utilisation of methane gas at Sibanye's Beatrix Gold Mine; 2. The use of waste gas at the Namakwa Sands smelter for electricity generation; and 3. The generation of electricity from solar power at the Kathu mine in the Northern Cape). This means that Group Five is already well placed to capitalise on this opportunity.
Potential Impact	Increased demand for existing products/services
Timeframe	Up to 1 year
Direct / Indirect	Direct
Likelihood	Likely
Magnitude of Impact	Medium
Estimated Financial Implications	The Carbon Tax Policy Paper (released in May 2013) states that from 2016, GHG emissions will be priced at a rate of R120/tCO_2e. A CDM project that generates 1MW of renewable electricity is equivalent to reducing 4,000 tCO_2e per year from the atmosphere (as electricity will be displaced from a coal-fired grid). Assuming that carbon offsets will be able to be sold at R100/tCO_2e, this translates to an increased revenue stream for the company making use of clean energy of R 4 million/MW/year.
Management Methods	Group Five is managing this opportunity on two fronts: 1. Group Five will continue to develop CDM projects for its clients through its Engineering and Construction cluster. As a specific activity carried out in the reporting year, Group Five continued with the construction of Transnet's New Multiproduct Pipeline (NMPP) – a pipeline that will transport petrol, diesel and jet fuel from Durban

	to Gauteng. This project will reduce emissions associated with road transportation of liquid fuels, and can potentially be registered under the CDM. 2. Group Five will continue to pursue opportunities in the renewable energy sector in Southern Africa, and will remain invested in Kayema, a solar energy system manufacturer which specialises in solar water heaters. Under the proposed carbon offset structure, solar water heaters may be used to offset against South Africa's carbon tax. These management methods place Group Five in a good position to use carbon offsets as a marketing opportunity to generate additional business up until 2021.
Cost of Management	1. The total value of the New Multiproduct Pipeline project is R 3.5 billion. 2. Group Five's investment in Kayema is estimated at R 40 million.

Opportunity Driver	**Other: Emerging markets**
Description	South Africa is committed to reducing GHG emissions through the implementation of renewable energy technologies. This has been driven by: – The President's pledge made in Copenhagen in 2009 to reduce emissions by 34% below business as usual levels by 2020, and by 42% in 2025; – The proposed carbon tax; – Increased electricity prices; – The Renewable Energy Independent Power Producers Procurement (REIPPP) programme, which aims to deliver 3725 MW of renewable energy by 2020. Group Five is well positioned to capitalise on these emerging market opportunities as the company has dedicated teams devoted to the development of renewable energy projects. Group Five is also currently constructing four renewable energy projects: – The Dassiesklip wind farm (26.19 MW); – The Jeffery's Bay wind farm (133.86 MW); – The De Aar photovoltaic plant (48.25 MW); and – The Droogfontein photovoltaic plant (48.25 MW).
Potential Impact	Increased demand for existing products/services
Timeframe	Up to 1 year
Direct / Indirect	Direct
Likelihood	Very likely
Magnitude of Impact	High
Estimated Financial Implications	The REIPPP programme is expected to attract investment of around R100 billion between 2012 and 2016. Group Five will be constructing two wind farms and two solar photovoltaic plants in this period at a total amount of approximately 3.4 billion.
Management Methods	Group Five has two teams specifically focused on renewable energy projects: 1. A division of Infrastructure Development Services responsible for the development of renewable energy projects and bidding under the REIPPP programme. 2. A division of Engineering and Construction involved as a contractor in the construction of renewable energy projects. This E&C business unit was created in 2010 to manage the opportunity by providing procurement and construction support to dedicated renewable energy technologies.
Cost of Management	The cost to start up the renewable energy division of the E&C business unit was R 1 million.

6.1b Opportunities driven by changes in physical climate parameters

Opportunity Driver	**Other physical climate opportunities: Changes in the frequency of extreme weather events**
Description	According to the Intergovernmental Panel on Climate Change's Fifth Assessment Report, Africa is the most vulnerable continent in respect to climate change. Funding was earmarked during the Copenhagen Accord for infrastructure development in response to a changing climate. These funds will be allocated to infrastructure improvements such as improved water supply, sanitation, irrigation, embankment and sea level protection. This could provide opportunities in terms of funding for new infrastructure projects. Group Five is well positioned with both project experience in countries throughout Africa and successful project delivery. In the reporting year alone, Group Five worked on contracts in Namibia, Mozambique, Zimbabwe, Uganda, the Democratic Republic of the Congo, Burkina Faso, Tanzania, and Ghana. On a national level, South Africa plans to build new infrastructure and upgrade existing infrastructure in response to climate change. Funding has been budgeted for the energy sector, for transport and logistics projects, and for building dams and pipelines. This is not only a function of the national developmental goal but also driven by the national climate change response policy. These sectors are the central focus of Group Five's business, and therefore present additional opportunities.
Potential Impact	Increased demand for existing products/services
Timeframe	Up to 1 year
Direct / Indirect	Direct
Likelihood	More likely than not
Magnitude of Impact	Medium-high
Estimated Financial Implications	It is anticipated that R 950 billion needs to be spent annually in Africa to improve infrastructure in order to adapt to climate change. R 827 billion has been budgeted in South Africa to build new and upgrade existing infrastructure between 2014 and 2016. This amounts to R 537 billion is in the energy sector, R 151 billion in transport and logistics projects, and R35 billion for building dams and pipelines.
Management Method	Group Five is managing this opportunity by tendering for infrastructure projects in Africa. In this reporting year Group Five created the Strategic Project Development team to work with Infrastructure Development Services to achieve earlier positioning for longer term large infrastructure contracts. Group Five is anticipating a 5 - 7% growth in investment into infrastructure projects in Africa over the next year. As a specific activity carried out in the reporting year, Group Five completed the rehabilitation of 828km road between Plumtree and Mutare in Zimbabwe.
Cost of Management	There was no additional cost to create the Strategic Project Development team as these skills were already carried in house. The cost of the rehabilitation of 828km road between Plumtree and Mutare in Zimbabwe was R 2.4 billion.

6.1c Opportunities driven by changes in other climate-related developments

Opportunity Driver	**Other drivers: New market opportunities - Nuclear**
Description	Currently the world's atmosphere contains +/- 400 ppm of carbon dioxide due to the over-exploitation of fossil fuels. To avoid irreversible impacts of climate change, the world needs to reduce the atmosphere's carbon dioxide to below 350 ppm. These emissions can be reduced by moving towards clean energy generation such as nuclear power. Compared to fossil fuels, nuclear energy has less emissions and it can be a vital component of a clean energy strategy. Nuclear power is an important component to reducing greenhouse gas emissions while still providing enough energy required for socioeconomic development. Currently nuclear generation avoids over two billion tonnes of CO_2 from fossil fuels each year. In 2014, the South African government announced its support for a nuclear build programme. Group Five is well placed to meet this opportunity through its Nuclear Construction Services division. In addition Group Five and its nuclear partner, Lesedi Nuclear Services, were awarded the Koeberg PTR Tank contract during 2014.
Potential Impact	New products/ business services
Timeframe	3 – 6 years
Direct / Indirect	Direct
Likelihood	Likely
Magnitude of Impact	Medium
Estimated Financial Implications	The net income attributable to Group Five's Nuclear Construction Services division in the reporting year was R 2.9 million.
Management Methods	In order to manage the opportunity created by nuclear energy, in this reporting year Group Five created the Nuclear Construction Services division under its Engineering and Construction business cluster. This division will provide the skills required for nuclear power plant work in order to attract opportunities in this field. The division is fully compliant with Eskom's nuclear standards and requirements in South Africa.
Cost of Management	The cost to start up the Nuclear Construction Services division of the E&C business unit was R 1 million. The cost to invest in Lesedi Nuclear Services was R 14 million in this reporting year and R 2 million in the previous reporting year.

7. Emissions Methodology

Base year

7.1 Please provide your base year and base year emissions (Scopes 1 and 2) (CDP 2014 CC7.1, amended)

Base Year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
01/07/2009 - 30/06/2010	69464	84484

Methodology

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

Defra Voluntary Reporting Guidelines
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Addition)
ISO 14064-1

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

Gas	Reference
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)

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

Fuel/ Material/ Energy	Emissions Factor	Unit	Reference
Diesel/Gas oil	2.67	kg CO2e per litre	DEFRA Factors 2014
Motor Gasoline	2.30	kg CO2e per litre	DEFRA Factors 2014
LPG	3.16	kg CO2e per kg	DEFRA Factors 2014
Weighted vehicle average emission factor	0.20428	kg CO2e per km	Group Five specific fleet emission factor
Bituminous Coal	2.44	tCO2e per tonne	IPCC 2006 Guidelines
Natural gas	0.056	tCO2e/GJ	IPCC 2006 Guidelines
Other: South African Grid Electricity	1.027	tCO2e per MWh	Eskom
Electricity: Zimbabwe	0.596	tCO2e per MWh	DEFRA Factors 2014
Other: Namibia Grid Electricity	0.024	tCO2e per MWh	Solomon Associates: http://solomononline.com/documents/Whitepapers/Lube_CEI_AM_WWW.pdf

Fuel/ Material/ Energy	Emissions Factor	Unit	Reference
Other: Tanzania Grid Electricity	0.043	tCO2e per MWh	Solomon Associates: http://solomononline.com/documents/Whitepapers/Lube_CEI_AM_WWW.pdf
Other: Ghana Grid Electricity	0.080	tCO2e per MWh	Solomon Associates: http://solomononline.com/documents/Whitepapers/Lube_CEI_AM_WWW.pdf
Other: Burkina Faso Grid Electricity	0.637	tCO2e per MWh	DEFRA Factors 2013
Other: DRC Grid Electricity	0.002	tCO2e per MWh	Solomon Associates: http://solomononline.com/documents/Whitepapers/Lube_CEI_AM_WWW.pdf
Other: Mozambique Grid Electricity	0.003	tCO2e per MWh	Solomon Associates: http://solomononline.com/documents/Whitepapers/Lube_CEI_AM_WWW.pdf
Other: Poland Grid Electricity	0.780	tCO2e per MWh	DEFRA Factors 2014
Other: Hungary Grid Electricity	0.317	tCO2e per MWh	DEFRA Factors 2014

8. Emissions Data Boundary

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

Operational Control

Scope 1 and 2 Emissions Data

8.2 Please provide your gross global Scope 1 emissions figures in metric tonnes CO_2e

76 321

8.3 Please provide your gross global Scope 2 emissions figures in metric tonnes CO_2e

57 058

8.4 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

Data Accuracy

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

Scope	Uncertainty range	Main source of uncertainty	Please expand on the uncertainty in your data
1	More than 2% but less than or equal to 5%.	Data management	Group Five's Scope 1 emissions are as a result of the combustion of petrol, LPG, coal, natural gas and diesel in its operations. The quantities of each of the materials are collected from supplier invoices, issue requisition records, and Group five's financial system, which are then used as input parameters to the GHG inventory. Therefore, the uncertainty of these sources is based on internal data management, which Group Five estimates to be more than 2% but less than or equal to 5%.
2	More than 2% but less than or equal to 5%.	Metering/ measurement constraints	Group Five's Scope 2 emissions are from the consumption of grid electricity. No heat, steam, or cooling is purchased from external sources. Group Five's electricity invoices are used as data inputs in the GHG inventory. Since third party metering is used, Group Five estimates the measurement uncertainty to be between 2% and 5%.

External Verification or Assurance

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

Third party verification or assurance underway for the reporting year but not yet complete – last year's statement attached

8.6a Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Type of verification or assurance	Attach the document	Page/Section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Limited assurance	Attached	Page 7/ Assurance Opinion	ISO14064-3	More than 90% but less than or equal to 100%

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

Third party verification or assurance underway for the reporting year but not yet complete – last year's statement attached

8.7a Please provide further details of the verification/assurance undertaken for your Scope 2 emissions, and attach the relevant statements

Type of verification or assurance	Attach the document	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Limited assurance	Attached	Page 7/ Assurance Opinion	ISO14064-3	More than 90% but less than or equal to 100%

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

Additional data points verified	Comment
No additional data verified	Not applicable.

Carbon Dioxide Emissions from Biologically Sequestered Carbon

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

No.

9. Scope 1 Emissions Breakdown

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

Yes

9.1a Please break down your total gross global Scope 1 emissions by country/ region

Country/Region	Scope 1 metric tonnes CO2e
South Africa	65 537
Namibia	18
Mozambique	3
Zimbabwe	5 051
Ghana	107
Democratic Republic of the Congo	2 261
Burkina Faso	109
Tanzania	519
Hungary	1 397
Poland	1 318

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

X By business division (9.2a)
By facility (9.2b)
X By GHG type (9.2c)
By activity (9.2d)
By legal structure (9.2e)

9.2a: Please break down your total global Scope 1 emissions by business division

Facility	Scope 1 emissions (metric tonnes CO2e)
Construction	46 510
Engineering and Construction	2 116
Manufacturing	24 394
Intertoll and Concessions	3 301

9.2c: Please break down your total global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO_2	76 321

10. Scope 2 Emissions Breakdown

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

If yes: 10.1a Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted for in CC8.3 (MWh)
South Africa	54 593	53 158	0
Namibia	0.36	15	0
Mozambique	0	0	0
Zimbabwe	4	7	0
Ghana	85	1 069	0
Democratic Republic of the Congo	1	358	0
Burkina Faso	73	115	0
Tanzania	5	114	0
Hungary	939	2 963	0
Poland	1 357	1 739	0

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

X By business division (10.2a)
By facility (10.2b)
By activity (10.2c)
By legal structure (10.2d)

10.2a: Please break down your total global Scope 2 emissions by business division

Business Division	Scope 2 emissions (metric tonnes CO2e)
Construction	6 981
Engineering and Construction	693
Manufacturing	42 774
Intertoll and Concessions	6 701

11. Energy

11.1 What percentage of your total operational spend in the reporting year was on energy?
More than 10% but less than or equal to 15%

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

Energy Type	MWh
Fuel	261 059
Electricity	59 539
Heat	0
Steam	0
Cooling	0

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

Fuels	MWh
Diesel/Gas oil	186 419
Motor Gasoline	4 624
Bituminous Coal	1 090
Natural Gas	66 923
LPG	2 003

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

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comments
No purchases or generation of low carbon electricity, heat, steam or cooling.	-	-

12. Emissions Performance

Emissions History

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

Increased

12.1a Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (%)	Direction of change	Comment
Emission reduction activities	25.5	Decrease	In the reporting year, Group Five implemented 4 emission reduction projects, reducing emissions by 34,060 tCO2e per annum. Since Group Five's Scope 1 and Scope 2 emissions inventory in the reporting year was 133,379 tCO2e, this is equivalent to a 25.5% decrease in emissions attributable to emission reduction activities.
Divestment	0	No change	Group Five did not divest from any business in the reporting year.
Acquisitions	0	No change	Group Five did not make any acquisitions in the reporting year.
Mergers	0	No change	Group Five did not merge with any entities in the reporting year.
Change in output	28.9	Increase	There was a change in the number of projects, specifically in the Construction cluster.
Change in methodology	0	No change	There was no change in the calculation methodology applied.
Change in boundary	0	No change	There was no change in boundary.
Change in physical operating conditions	0	No change	There was no change in physical operating conditions.
Unidentified	0	No change	Not applicable.
Other	0	No change	Not applicable.

Emissions Intensity

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

Intensity Figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
0.000008718	Metric tonnes CO2e	Unit total revenue	24.8	Decrease	Group Five's emissions intensity (per unit total revenue) decreased by 24.8% in the reporting year due to the implementation of emission reduction projects which decreased emissions by 34,060 tCO_2e. These emission reduction projects involved moving the head office to a new 5-star green building, installing solar panels and LEDs at the toll plazas in Zimbabwe and a fleet optimisation project in Ghana.

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

Intensity Figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
9.44	Metric tonnes CO2e	FTE Employee	12.71	Decrease	Group Five's emissions intensity (per FTE employee) decreased by 9.44% in the reporting year due to the implementation of emission reduction projects which decreased emissions by 34,060 tCO_2e. These emission reduction projects involved moving the head office to a new 5-star green building, installing solar panels and LEDs at the toll plazas in Zimbabwe and a fleet optimisation project in Ghana.

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

Intensity Figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
23.25	Metric tonnes CO2e	Permanent employees	7.61	Decrease	Group Five's emissions intensity (per permanent employee) decreased by 9.44% in the reporting year due to the implementation of emission reduction projects which decreased emissions by 34,060 tCO_2e. These emission reduction projects involved moving the head office to a new 5-star green building, installing solar panels and LEDs at the toll plazas in Zimbabwe and a fleet optimisation project in Ghana.

13. Emissions Trading

13.1 Do you participate in any emissions trading schemes?

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

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

No.

14. Scope 3 Emissions

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

Sources of Scope 3 emissions	Evaluation status	Metric tonnes CO2e	Emissions calculation methodology	% of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, calculated	569150	Activity data: Supply chain records, invoices, were used to source activity data of the quantity of each product purchased. Emissions factors: The emission factors used and their sources are: • Steel = 2.03 kg CO2e/kg – "Inventory of Carbon and Energy" study on construction material done by the University of Bath (2011). • Cement = 0.74 kg CO2e/kg – "Inventory of Carbon and Energy" study on construction material done by the University of Bath (2011). • Grease = 0.804 kg CO2e/kg – IPCC 2006 Guidelines, Chapter 5, Vol 3. Pg5.9 • Oil – 0.527 kg CO2e/kg – (2013 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting: Methodology Paper for Emission Factors). • Welding rod – 3.02 kg CO2e/kg – "Inventory of	100	-

Sources of Scope 3 emissions	Evaluation status	Metric tonnes CO2e	Emissions calculation methodology	% of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			Carbon and Energy" study on construction material done by the University of Bath (2011). • Paraffin = 0.527 kg CO2e/kg – (2013 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting: Methodology Paper for Emission Factors). GWP values: Carbon dioxide = 1 Methodology: Emissions were calculated by multiplying the activity data quantity by the relevant emission factor. These emissions factors included emissions resulting from the extraction, production and transportation of the activity data. The methodology used was ISO 14064-1 and the Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Assumptions: No assumptions were made. Allocation methods: Operational control method was used.		

Sources of Scope 3 emissions	Evaluation status	Metric tonnes CO2e	Emissions calculation methodology	% of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Capital goods	Not relevant, explanation provided	-	-	-	The emissions associated with the purchase of capital goods in the reporting year can be attributed to the purchase of: • New equipment; and • New vehicles. Since Group Five did not start-up any new business units in the reporting year, there were few purchases of new equipment and new vehicles. As such, the emissions associated with the production of these capital goods are not relevant. This conclusion is based on a qualitative estimate.
Fuel-and-energy-related activities (not included in scope 1 or 2)	Relevant, calculated	14,676	Activity data: Supply chain records, invoices, were used to source activity data of the quantity of each fuel source purchased. Emissions factors: The emission factors used and their sources are: • Diesel = 0.568 kg CO2e/litre - (2013 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting: Methodology Paper for Emission Factors).	100	-

Sources of Scope 3 emissions	Evaluation status	Metric tonnes CO2e	Emissions calculation methodology	% of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			• Petrol = 0.463 kg CO2e/litre - (2013 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting: Methodology Paper for Emission Factors). • Paraffin = 0.527 kg CO2e/litre - (2013 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting: Methodology Paper for Emission Factors). • LPG = 0.339 kg CO2e/litre - (2013 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting: Methodology Paper for Emission Factors). • Coal = 0.295 kg CO2e/kg – IPCC 2006 Guidelines • Electricity (transmissions and distribution losses) (South Africa grid) = 0.121 tCO2e/MWh - (calculated in accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) using data from Eskom's 2012 Annual Report). <u>GWP values:</u> Carbon dioxide = 1 <u>Methodology:</u> Emissions were calculated by multiplying the quantity		

Sources of Scope 3 emissions	Evaluation status	Metric tonnes CO2e	Emissions calculation methodology	% of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			of fuel used by the relevant emission factor. These emissions factors relate to the extraction, production and transportation of the fuel. Upstream emissions from coal, diesel, petrol, LPG, Paraffin, and T&D losses from electricity purchases were included. The methodology used was ISO 14064-1 and the Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Assumptions: No assumptions were made. Allocation methods: Operational control method was used.		
Upstream transportation and distribution	Relevant, calculated	14653	Activity data: The quantity of fuel used for upstream transportation and distribution was obtained from suppliers. Emissions factors: The emission factor used and its sources is: • Average Heavy Goods Vehicle = 0.053 kg CO2e/tonne.km - (2013 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting: Methodology Paper for Emission Factors).	50	-

Sources of Scope 3 emissions	Evaluation status	Metric tonnes CO2e	Emissions calculation methodology	% of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			GWP values: Carbon dioxide = 1 Methodology: Emissions were calculated by multiplying the quantity of purchased goods by the distance travelled to reach Group Five site and by the emission factor of the heavy goods vehicles. The methodology used was ISO 14064-1 and the Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Assumptions: • It was assumed that all goods were transported in heavy goods vehicles to Group Five operations. • The one way distance travelled per good was estimated. Allocation methods: Operational control method was used.		
Waste generated in operations	Not relevant, explanation provided	-	-	-	Very little organic waste was generated in Group Five operations, thus emissions relating to waste is estimated as insignificant.

Sources of Scope 3 emissions	Evaluation status	Metric tonnes CO2e	Emissions calculation methodology	% of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Business travel	Not relevant, explanation provided	-	-	-	A high level calculation was carried out and it was found that emissions related to business travel only amounted to 0.04% of Group Five scope 3 emissions.
Employee commuting	Not relevant, explanation provided	-	-	-	Employee commuting was found to be insignificantly small compared to other Scope 3 emissions after carrying out a high level calculation.
Upstream leased assets	Not relevant, explanation provided	-	-	-	Very few leased assets are used in Group Five operations. The emissions associated with upstream leased assets are not relevant.
Investments	Not relevant, explanation provided	-	-	-	No investments were made by Group Five during this reporting year.
Downstream transportation and distribution	Relevant, Calculated	4767	Activity data: The activity data is the number of products manufactured by Group Five and transported to clients. The distances the manufactured products travelled are estimates. Emission factors: The emission factor used and its sources is: • Average Heavy Goods Vehicle = 0.053 kg CO2e/tonne.km - (2013 Guidelines to Defra /	50	-

Sources of Scope 3 emissions	Evaluation status	Metric tonnes CO2e	Emissions calculation methodology	% of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			DECC's GHG Conversion Factors for Company Reporting: Methodology Paper for Emission Factors). <u>GWP values:</u> Carbon dioxide = 1 <u>Methodology:</u> Emissions were calculated by multiplying the quantity of products manufactured by the distance travelled to reach Group Five clients and by the emission factor of the heavy goods vehicles transporting the products. The methodology used was ISO 14064-1 and the Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard. <u>Assumptions:</u> • It was assumed that all manufactured products were transported in heavy goods vehicles to Group Five clients. • The one way distance the products travelled was estimated. <u>Allocation methods:</u> Operational control method was used.		

Sources of Scope 3 emissions	Evaluation status	Metric tonnes CO2e	Emissions calculation methodology	% of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Processing of sold products	Not relevant, explanation provided	-	-	-	Due to the nature of the business there is very little processing of sold products, and found to be irrelevant.
Use of sold products	Not relevant, explanation provided	-	-	-	Due to the high levels of uncertainty this was not calculated and is difficult to estimate.
End of life treatment of sold products	Not relevant, explanation provided	-	-	-	Due to the high levels of uncertainty this was not calculated and is difficult to estimate.
Downstream leased assets	Not relevant, explanation provided	-	-	-	Group Five do not lease out any assets.
Franchises	Not relevant, explanation provided	-	-	-	Group Five does not have franchises, and therefore there are no emissions associated with this scope 3 category. This Scope 3 category is not relevant to Group Five's overall GHG inventory.

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

No third party verification or assurance.

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

Yes

14.3a Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (%)	Direction of change	Comment
Purchased goods and services	Change in output	6.0	Decrease	Reduced GHG emissions in this category due to reduced purchases in the reporting year.
Fuel-and-energy-related activities (not included in scope 1 or 2)	Emission reduction activities	24.5	Decrease	Through the implementation of emission reduction project in the reporting year (moving the head office to a new 5-star green building, installing solar panels and LEDs at the toll plazas in Zimbabwe and a fleet optimisation project in Ghana) this category's emissions decreased by 24.5%.
Upstream transportation and distribution	Change in output	4.9	Decrease	Reduced GHG emissions in this category due to reduced purchases in the reporting year.

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

X No, we do not engage.

14.4d Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future.

Group Five has different types of projects and contracts in various countries. The projects and suppliers change on a regular basis, and therefore engagement with specific suppliers will not necessarily benefit subsequent projects. The design and final deliverables of Group Five's projects are dictated by each client and, as such, the company does not have direct control over the emissions of each project. Based on this, there are also no plans to develop a supplier engagement process in the future.

Sign Off

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

Name	Job Title	Corresponding job category
Gary Conrad	Group Environmental Manager	Environment/Sustainability manager