



## Pioneering rolling stock lifecycle transparency in Australia

The first of the Waratah Series 2 trains rolled onto the Sydney network in September 2018 – and we can already chart their environmental footprint in the year 2048.

In delivering the Waratah Series 2 trains for Transport for NSW, Downer produced an Environmental Product Declaration (EPD) for the train sets that can foresee the fleet’s environmental impact at the end of a 30-year lifecycle.

An EPD is an independent framework for businesses to provide transparent, science-based data about the environmental performance and lifecycle of their products.

Our rolling stock EPD for Waratah Series 2 is the first EPD produced in Australia – and the southern hemisphere – for vehicle and transport equipment, setting a new benchmark in lifecycle analysis and impacts of rolling stock.

“This EPD provides the full carbon impact of the train across a 30-year lifecycle,” Downer’s Environment and Sustainability Manager, Ellese O’Sullivan, said.

“It covers all of the components, parts, raw materials and energy impacts that went into the trains’ manufacture. It also tracks the energy impacts of their transportation – moving the trains from China through to our facility at Cardiff and then onto the network to the Auburn Maintenance Centre, as well as charting the full carbon impact of their operation on the network and maintenance of the train sets through their lifecycle right through to final disassembly at the train sets’ end of life.”

The data in the EPD can also be used to forecast the future environmental impact of the trains throughout their lifecycle and beyond.

“It also informs on what to do with the train sets at the end of lifecycle – what components, parts and materials are salvageable – providing a full circular economy to end-stage and decommissioning,” Ellese said.

It is anticipated with current reuse options that 95.4 per cent of these trains will be recoverable and as technology and reuse potential improves we anticipate that this will only increase.



*This initiative demonstrates Downer’s contribution to achieve the following Sustainable Development Goals: #11 Sustainable Cities and Communities; #12 Responsible consumption and production; #13 Climate Action*

### Environment (continued)

#### Climate change and Downer’s TCFD response

Downer accepts the latest Intergovernmental Panel on Climate Change (IPCC) assessment of the science related to climate change. Downer considers climate change to be one of its material issues.

Downer continues to make significant progress in assessing the financial implications of climate change. In FY19 Downer progressed towards the recommendations of the TCFD and focused on scenario analysis and developing a science-based target, as detailed below.

In 2019 Downer published a set of climate change frequently asked questions on its website [www.downergroup.com/environment](http://www.downergroup.com/environment) to provide a consistent response to questions Downer receives on climate change.

The impacts of climate change present a challenge to sustaining our modern environment. While our business portfolio is diverse, we have limited exposure to the effects of climate change on our business through fixed, long-lived capital assets. Our diverse portfolio allows us to be flexible and agile to redeploy our assets to high-growth areas as markets change. This diversity of portfolio strongly positions us to mitigate and manage our exposure to climate risks and to maximise the business opportunities it presents.

Our climate-related disclosures which are aligned with the recommendations of the Financial Stability Board’s Task Force on Climate-related Financial Disclosures (TCFD) are detailed against the four themes, Governance, Strategy, Risk Management and Metrics and Targets and build on our initial climate disclosures in FY17 and FY18.



## Governance

The Downer Board, through its oversight functions, has ensured Downer appropriately considers Environmental, Social and Governance (ESG) risks including those related to climate change. In fulfilling this function, the Downer Board also receives oversight from Downer's Audit and Risk Committee, Zero Harm Committee, Zero Harm Board Committee, Tender Risk Evaluation Committee and Disclosure Committee. Climate-related risks and opportunities are incorporated into Downer's broader corporate strategy, planning and risk management.

The Downer Board recognises that an integrated approach to managing climate-related risks and opportunities is essential. This has been reflected in the strengthening of Downer's governance structure and increased focus on climate change in both Board and executive forums throughout FY19. This has included:

- Formal updates to the Board on a regular basis, and Audit and Risk and Zero Harm Committees on a bi-monthly basis
- Regular updates and stakeholder engagement with the Executive Committee
- Amendments to the Audit and Risk Committee Charter to include explicit reference to climate-related risks and opportunities
- Inclusion of ESG risks and opportunities in the annual Board strategy agenda
- Incorporating ESG risk and opportunity discussions in Divisional executive meetings, including climate-related workshops with senior leadership teams of each Division.

Climate-related risks and opportunities are governed as part of Downer's Group Risk and Opportunity Management framework and Project Risk Management framework. We identify, manage and disclose material climate-related risks as part of Downer's standard business practices and in accordance with the Group and Divisional strategies, which apply to everyone at Downer.

The method for measuring the company's performance is clearly set out in our governance framework, and short-term remuneration incentives are offered to senior managers in relation to the company's performance against environmental sustainability targets. These targets include the management of critical environmental risks and GHG emissions reduction.

## Risk management

Climate-related risks are governed as part of Downer's Group Risk and Opportunity Management framework and Project Risk Management framework. We identify, manage and disclose material climate-related risks as part of our standard business practices, which are aligned with our Group and Divisional strategies. This framework applies to all employees, Directors and contractors.

Our Audit and Risk Committee and Tender Risk Evaluation Committee are responsible for providing oversight over Downer's risk profile, policies and management, and external reporting. In line with this, we updated the Audit and Risk Committee Charter to explicitly address climate-related risk, given the Audit and Risk Committee's responsibility for governance and risk management.

To further strengthen our risk management framework in line with the range of impacts and considerations associated with climate risk over the short, medium and long-term horizons, we amended the Consequence Rating Table within the Group Risk and Opportunity Management framework to enable senior management and employees to understand and assess the potential risks and opportunities arising from various future scenarios.

Response to climate-related risks

Risk	Description	TCFD risk type	Potential impact to business	Management response and mitigation
<b>Impacts of increasing energy costs</b>	Increased operation costs due to increase in electricity, gaseous and liquid fuel prices, materially impacting high energy consuming service lines	Transition: Market, Policy	Decreased profitability from contracts in energy-intensive service lines.  Time horizon: Medium to long-term	<ul style="list-style-type: none"> <li>Continue identifying and implementing energy efficiency initiatives</li> <li>Use the scenario analysis as signposts for change.</li> </ul>
<b>Exposure to extreme weather events</b>	Severe weather events impacting the delivery of contractual obligations. For example, resource mobilisation, health and safety, and security	Physical: Acute and chronic, Legal	Inability to achieve contractual schedules due to adverse and severe weather events.  Time horizon: Long-term	<ul style="list-style-type: none"> <li>Continue to assess contractual arrangements with respect to acute and chronic weather events to ensure appropriate mitigation measures are in place</li> <li>Use the scenario analysis as signposts for change.</li> </ul>
<b>Exposure to thermal coal contracts</b>	Transition to a low carbon economy leads to reduced demand for thermal coal for power generation	Transition: Policy, Legal, Technology changes, Market changes, Reputation	Reputational risks arise from Downer's continual exposure to the coal sector.  Time horizon: Medium-term	<ul style="list-style-type: none"> <li>Continue to monitor demand forecasts for thermal coal – particularly local demand driven by power stations that are current customers for existing thermal coal mining services contracts</li> <li>Use the scenario analysis as signposts for change</li> <li>When reviewing contract extensions and new contracts, continue to undertake analysis to increase exposure to mines that are expected to maintain competitiveness in light of the transition to a low carbon economy.</li> </ul>
<b>Changing design and construct requirements</b>	Increased climate-related risk requirements relevant to the construction of infrastructure driven by changing customer expectations and increased climate-related design requirements stipulated in EPCM contracts	Physical and liability: Acute and chronic, Policy, Legal, Reputation	Increased cost of EPCM services and challenges to the competitiveness of Downer's services.  Time horizon: Medium to long-term	<ul style="list-style-type: none"> <li>Continue to assess contractual arrangements with respect to design and construction events to ensure appropriate mitigation measures are in place</li> <li>Use sustainability rating tools and incorporate climate change adaptation and mitigation considerations into design.</li> </ul>

## Response to climate-related opportunities

Opportunity	Description	TCFD opportunity type	Potential growth to business	Management response
<b>Existing renewable energy capability and market presence</b>	Expertise with developing, implementing and maintaining renewable energy assets	Resource efficiency, Products/Services	Transition to a low carbon economy drives increased demand for renewable energy technology and infrastructure services, as well as broader smart city products and services	<ul style="list-style-type: none"> <li>Strengthen existing and establish new relationships with key customers</li> <li>Leverage our capability and broaden our service offerings.</li> </ul>
<b>Leverage existing mining capabilities to service new and adjacent markets</b>	Transition to a low carbon economy is driving demand for base (e.g. copper, gold) and precious metals (e.g. lithium, zinc) critical for this transition	Products/ Services, Markets	Opportunity to leverage existing mining capabilities to service new and adjacent markets with products essential for the transition to a low carbon economy	<ul style="list-style-type: none"> <li>Strengthen existing and establish new relationships with key customers</li> <li>Leverage our capability and broaden our service offerings.</li> </ul>
<b>Response services to extreme weather events</b>	Increased frequency and impacts of extreme weather events drives increased demand for disaster recovery and resilience services	Products/ Services, Markets, Resilience	Opportunity to further leverage Downer's existing expertise in responding to asset damage from extreme weather events. Opportunity to also leverage expertise to improve the resilience of existing assets	<ul style="list-style-type: none"> <li>Continue to work with Government customers on emergency response to extreme weather events</li> <li>Strengthen and leverage existing capability</li> <li>Incorporate climate change and adaptation into the design of any infrastructure contract.</li> </ul>

### Strategy

Our existing Group and Divisional strategy process considers key external drivers, as stated above. We have also enhanced our strategy process to incorporate more explicitly climate-related risks and opportunities on an ongoing basis. We have embedded this process in the annual Group strategy session and a similar process into the Divisional strategy sessions.

Outlined above are Downer's key climate-related risks and opportunities. These risks and opportunities are not listed in order of significance and are not intended to be exhaustive. They represent the most significant risks identified during FY19 and are informed by a combination of review of Group and service line strategic documents and risk registers, interviews with senior management, and workshops with Divisional leadership teams.

This process confirmed that at present, there are no material short-term climate-related risks for the Group. As indicated above, the majority of Downer's climate-related risks have been deemed to impact the business in the medium to longer term. Opportunities identified relate primarily to leveraging Downer's existing capabilities and business model as a service provider to service new and adjacent markets that will continue to emerge as a result of the transition to a low carbon economy.

### TCFD scenario analysis

In FY19 Downer completed scenario analysis to test the resilience of our strategy and the assumptions underpinning the strategic focus areas in relation to the relevant climate futures both physical and transitional. The scenario analysis acknowledges the significant degree of uncertainty

associated with how these climate futures will manifest, and explores four different yet inter-related potential futures with varying degrees of climate change severity and alternate socio-economic and political landscapes.

In deciding on the three key issues (and their respective areas of the business) upon which to frame the scenario analysis, Downer undertook a process to identify the future risks and opportunities arising from the transition to a low carbon economy and physical changes and overlay Downer's strategic priorities, current risks and future changes.



## BESS is best for Ballarat

Downer and Spotless have combined to help deliver Victoria's first utility-scale Battery Energy Storage System (BESS) in Ballarat.

Downer completed construction of the 30-megawatt (MW) 30 megawatt-hour (MWh) BESS at the AusNet Services Ballarat Terminal Station in Warrenheip in October 2018, in time to start relieving pressure on the regional grid during the peak demand summer period.

The BESS provides Victorians with more flexible, reliable and efficient energy, and supports the supply of variable forms of renewable energy such as solar and wind power. The system is capable of powering more than 20,000 homes for an hour of critical peak demand before being recharged and is able to respond to changing grid needs within milliseconds. It will operate 24/7 to support critical peak demand, improving grid stability of the State's energy supply.

"With the growth of renewable energy solutions entering the market, battery storage will play an increasingly pivotal role in providing reliable power in Australia," CEO of Downer's Transport and Infrastructure Division, Sergio Cinerari, said. "The team delivered a great outcome for our customers and the community the battery will serve."

"This project is a critical demonstration of integrating existing and new renewable energy technologies, which will significantly contribute towards our transition to more flexible, affordable and sustainable energy solutions."

Downer is one of Australia's largest and most experienced providers in the renewable energy market and power system sectors, delivering services to customers requiring both utility and commercial scale sustainable energy solutions.

Downer has delivered 19 wind farms and solar farms in Australia and New Zealand, and is in the process of delivering other renewable energy projects, including: Clare Solar Farm (Queensland), Ross River Solar Farm (Queensland), Limondale Solar Farm (NSW), Murra Warra Wind Farm (Victoria) and Turitea Wind Farm (New Zealand).



*This initiative demonstrates Downer's contribution to achieve the following Sustainable Development Goal: #13 Climate Action*

### Environment (continued)

Key issue	Area of business focus
<b>Physical impacts of climate change (weather)</b>	Transport and Infrastructure and New Zealand
<b>Energy transition (thermal coal transition)</b>	Mining (part of Mining, Energy and Industrial)
<b>Changing carbon/energy policy</b>	Group

These key areas informed the selection of four divergent, internally consistent and plausible scenarios, based upon the best available literature and modelling. Two of the four selected scenarios explore the minimum plausible global-warming trajectory (holding the world to approximately two degrees of global warming), and to explore the upper limit (approximately four degrees of global warming), with these pairs separated based on the degree to which adaptation is available and practicable in the given future.

The degrees warming is informed by the Representative Concentration Pathways (RCPs) (RCP 2.6 for under two degrees and RCP 8.5 for four degrees), while the transition pathways, including broader energy and socio-economic conditions, are informed by the Shared Socio-economic Pathways (SSPs).

Scenarios	Sustainability	~2 degrees global warming (SSP 1 – RCP 2.6)
	Follower	~2 degrees global warming (SSP 4 – RCP 2.6)
	Fossil fuel development	~4 degrees global warming (SSP 5 – RCP 8.5)
	Global decline	~4 degrees global warming (SSP 3 – RCP 8.5)

Each of these scenarios provide numeric and qualitative outcomes under which to explore the risks and opportunities. The development of these future scenarios was tailored to Downer's business strategy by identifying the key risks and opportunities that arose in each of the three selected priority areas. Once these were understood, a key driving climate or transition variable was mapped, enabling consistent exploration of the potential impact or outcome for Downer in each of the four futures.

Key findings include:

- Downer's strategy was found to be resilient and well positioned in all scenarios used due to the diversification of services across multiple sectors, existing market presence and capabilities
- A <2°C world provides considerable opportunities which outweigh identified risks and will assist with lower cost of capital and increased margins
- Aligning to a <2°C world will require decarbonisation by the second half of the century, with a substantial decrease by 2035.

The scenario analysis work will be used as signposts to inform Downer's strategy and help Downer to manage some of the uncertainty and complexities associated with these futures. Monitoring government policy (e.g. carbon price), consumer sentiments on climate change, the levelised cost of energy across major energy sources, and the global emission trajectory will provide key insights to best inform Downer's business strategies.

Downer will continue to focus on a decarbonisation strategy with an emphasis on long-term contracts, technology, energy transition, GHG reductions and efficiencies as well as opportunities to offset emissions.

### Physical impacts

In all scenarios weather conditions will become more extreme than today, with extreme rainfall, heatwaves and storms all resulting in potential unsafe work conditions and leading to delays or disruptions in project delivery or operations. More chronic conditions, such as gradual heat rise and longer time in drought, will create a higher risk of dust inhalation and the linked detrimental consequences to worker health.

In the immediate to short-term, these extremes will start to impact the way we perform our activities. Those on the frontline will be our outdoor workforce, who will be at higher risk of both injury and illness in a warming world.

Downer has the opportunity to adapt workplace policies and practices to reduce these risks before they result in consequences to our workforce. These changes will need to be strategically planned to manage the impact on margins. For example, shifting work hours away from daylight hours or implementing policies to stop work on days exceeding extreme temperatures may reduce the amount of time available to complete a project. These factors will therefore need to be a consideration when executing new contracts.

Limiting global warming to under two degrees has relatively more positive outcomes for workforce health, safety and productivity due to a reduction in lost-time, project delays or efficiencies gained, compared to higher warming scenarios.

The transition pathway will also provide opportunities to improve employee safety, with transition away from fossil fuels and internal combustion engines providing opportunities to improve air quality and productivity gains. In each case financial implications will arise due to consequences of lost time, project delays or efficiencies gained.

In all scenarios, resilient infrastructure or adaptation to existing infrastructure will be needed. However, customers are willing to pay a premium for quality sustainable infrastructure, which may be contracted at higher margins. Points of difference arise across the scenarios in GDP, which will change the focus on critical infrastructure projects and achievable margins.

Downer designs and constructs infrastructure to withstand Australia and New Zealand's climate. As the climate changes, and in particular extremes heightens, we will need to adjust the design factors and the way we construct infrastructure. Although Downer is already proactively responding to these changes, it will be important to remain aware of the changing future extremes in order to protect our reputation and standing, compared to competitors.

Adapting design and build methods may impact Downer's margins, so these considerations will need to be carefully priced to assess the merits. For example, while there is still uncertainty in whether the world will limit global warming to two degrees, versus a four-degrees or higher warming, decisions need to be made as to the cost/benefits of incorporating worst-case versus best-case changes into planning. In any event, the climate will change, and the plausible minimum warming will be used as a baseline for decisions.

The sectors in which Downer's Transport and Infrastructure and New Zealand Divisions operate in will look to protect the resilience of cities as we move towards a warmer world. This provides Downer with opportunities to capitalise on new and emerging markets, particularly in sustainable infrastructure, sea walls, resilient roads and trains, and protection from urban heat islands. The direction of this demand, whether it be sustainable or purely cost-effective adaptation, is still uncertain. However, Downer has the ability to position itself to deliver on these emerging trends based on signposts.

### Energy transition (thermal coal transition)

Downer's Mining business provides mining services across the mining lifecycle, including technical services, drilling and blasting, load and haul, maintenance and mine site rehabilitation. It has a strong reputation for the provision of safe and reliable operational services across a diversified range of commodities.

In FY19, Mining contributed 11 per cent of Downer Group's annual revenue.

The majority of Mining's contracts are with non-coal customers, however, approximately 50 per cent of Mining's FY19 revenue was generated from coal (thermal and metallurgic) contracts.

At the time of this analysis, the majority of Downer Mining's coal contracts related to the production of coking coal, with only two contracts involving the production of thermal coal. The most significant of these contracts is Meandu, which is the third largest contributor to Mining's revenue. The other relates to Commodore, which is within the top five largest contracts by revenue. The majority of thermal coal produced from both mines is used to supply local power stations in Southeast Queensland – Tarong and Tarong North Power Station (Meandu), and Millmerran (Commodore), with minor quantities sent to export markets. The current Meandu and Commodore contracts are due to expire in 2020 and 2024, respectively.

The International Energy Agency outlook indicates that while thermal coal is declining, it will be part of the global energy mix beyond 2040.

Our Mining business is in a strong market position to capitalise on short to medium-term demand for coal contracting services to meet this energy demand. Although limited growth opportunities exist for thermal coal production in Australia, new growth opportunities are likely to come from overseas.

A strategic issue that may emerge from alternative futures, exploring domestic demand for thermal coal, is the impact on immediate investment decisions. A key consideration is the level of capital required by the business to continue servicing the open cut business.

Downer's contracts in the domestic thermal coal market are largely short-term. While these contracts can provide uncertainty for the business over the medium to longer term, the short-term nature of the contracts provides the business with flexibility to pivot in response to market changes and customer demands. One of these responses is the demand for alternative metals and minerals. Given Mining's market presence, reputation and capability, opportunities exist to service emerging minerals and metals commodities.

Another key consideration for our strategy is whether the incremental gain from servicing thermal coal will be outweighed by opportunity costs for the remainder of the Group based on exposure to transitional risks. As reflected in the current increasing stigmatisation of the sector, we see in two scenarios stronger reputation risks, with declining social acceptability and increasing cost of capital, which will apply to the broader Downer Group.

In FY19 Downer acquired the remaining 73 per cent of the Mitsubishi Hitachi Power Systems (MHPS) – Australia and New Zealand Plant Services Pty Ltd business. In conjunction with the share purchase agreement, Downer and MHPS have entered into an Alliance Agreement, which provides Downer with exclusive rights to be the Agent for MHPS in the Australian and New Zealand regions. This has provided Downer with the ability to capitalise on opportunities to provide products and technical services to improve the efficiencies and extend the life of ageing thermal coal generation plants in Australia and overseas.

### Changing carbon / energy policy

Globally, the energy transition is occurring at a rapid pace. The energy transition is complex and being driven by multiple, inter-related factors. At a macro level, the costs of energy are changing dramatically driven by technology costs, fuel costs and a shift in consumer preference. Renewables are now viewed by many as the best solution to meet the demand for reliable, affordable and environmentally responsible energy. Energy end-users have increasing options to implement commercially and technologically viable solutions.

In response to the energy transition, Downer and the private sector is actively diversifying products and services, and making investment in new energies. This is driven by focusing on reducing operation costs, positioning for market share in new and emerging markets, and realising competitive advantages.

While energy efficiency has been clearly linked to growing margins, there is also a growing cost advantage in moving towards renewable energy and storage. Embedding energy efficiency and adopting renewable energy and storage technologies are likely to have favourable payback periods, regardless of whether a carbon price is introduced. Under Sustainability and Follower, where a carbon price is introduced, these technologies provide major cost advantages.

Opportunities to provide higher margin, premium products and services will arise in some scenarios. Improved margins through energy efficiencies and use of renewable technology with storage will deliver swifter payback periods, expedited where a carbon price is introduced.

A rapid transition or a delayed transition, which is out of step with market or consumer expectations, holds implications for Downer's brand and reputation. Timing is crucial. Moving too slowly will result in increased costs of capital and reduced demand. However, moving too quickly will increase the risk of adopting technology unfit for purpose, impacting service delivery and ultimately brand. An effectively coordinated transition pathway, in line with public expectations, will be the optimum outcome.

### GHG emissions reduction target

A key consideration of the TCFD recommendations is the pathway to reduce emissions and the establishment of targets. Downer has set ambitious targets to align with the 2015 Paris Agreement goals to pursue efforts to limit the temperature increase to 1.5°C by the end of this century.

Downer acknowledges that climate change mitigation is a shared responsibility and to support the transition to a low carbon economy in an equitable manner, organisations need to play their part by developing emissions reduction targets that align to the latest science. Therefore, Downer has leveraged the Science Based Target initiative's framework and guidance to set a GHG emissions reduction target for the Downer Group.



## Downer commits to the decarbonisation<sup>5</sup> of its absolute Scope 1 and 2 GHG emissions by 45-50 per cent by 2035 from a FY18 base year and being net zero in the second half of this century<sup>6</sup>.

In addition, Downer will review its emission reduction approach in line with Intergovernmental Panel on Climate Change (IPCC) updated scientific reports and other developments in low-emissions technology, to ensure a practical and affordable transition towards this commitment.

### Managing our GHG emissions

As an integrated service provider, we operate within carbon-intensive industries such as asphalt manufacturing and mining operations. A key challenge for us is the effective management of our carbon-related activities and implementing strategies to reduce our GHG emissions. Conversely, we have the opportunity to engage with our customers and supply chain to positively influence change that reduces their GHG emissions.

The energy and GHG emissions data for FY19 builds on last year, with the inclusion of New Zealand subcontractors, Spotless New Zealand and Hawkins. All recent acquisitions have adopted Downer's sustainability data reporting protocols<sup>7</sup> for Scope 1 and 2 emissions and energy data using an operational control boundary consistent with Australia's National

Greenhouse and Energy Reporting (NGER) scheme. Scope 3 data includes business travel, mining and engineering construction projects where Downer does not have operational control but can influence the emissions profile.

Downer has an extensive supply chain and collecting actual data from subcontractors requires significant effort and remains a challenge. Therefore, we use an estimation methodology for instances where we have been unable to obtain actual data. In FY19 approximately 23 per cent of our Scope 1 emissions were estimated for subcontractor emissions – 11 per cent from our Roads business, 10 per cent New Zealand and two per cent Utilities. Subcontractor data is estimated by collecting a target of 80 per cent of subcontractor fuel consumption based on contractor spend, grouping contractors by similar activities, calculating a contractor spend to fuel consumption ratio and estimating the missing data using this ratio. This ratio can be used for five years if 80 per cent is reached and the activities remain consistent. If it is not reached, the ratio is calculated using the actual data collected and the business repeats the

process the following year striving for the 80 per cent target.

New Zealand was unable to collect actual subcontractor data this reporting period due to resourcing constraints, therefore the estimation procedure for subcontractor emissions could not be used. Instead, an alternative method was used, with the fuel consumption to subcontractor spend ratios calculated through the standard procedure being replaced by the average ratios from the Australian business for similar subcontractor types (haulage and other contractor types).

In the Transport and Infrastructure Division, there was a significant change in the estimated subcontractor data due to resetting of the fuel consumption to subcontractor spend ratios. This was last determined five years ago in line with our reporting procedures. As a result the contractor spend for the year was similar to FY18, however, the emissions have reduced significantly by 72 per cent, accounting for a 24 ktCO<sub>2</sub>-e reduction.

This adjustment had a five per cent impact on the Group's Scope 1 and 2 emissions.

<sup>5</sup> Decarbonisation includes the use of registered certified offsets.

<sup>6</sup> This is consistent with a 1.5 degree pathway using the latest International Panel on Climate Change (IPCC) scientific reports.

<sup>7</sup> Scope 1 emissions are those produced directly by Downer Group activities

Scope 2 emissions are indirect emissions, such as electricity consumption

Scope 3 emissions are those that occur from sources not owned or controlled by Downer.