

## F1 – Energy and CO2

**Applicants to advise how they have:**

- **provided services that reduce energy use / carbon emissions to clients with respect to whole life costs,**
- **considered the energy and carbon impacts both internally and throughout their value chain and plans to measure, manage and reduce these impacts**
- **an understanding of the embodied carbon in the Goods/Services/Works they provide/use/procure and how they intend to reduce this over time,**
- **ensured compliance with any climate related disclosure or carbon trading schemes they are required to participate in**
- **in addition, Applicants to advise if they are registered with or a member of any carbon measurement and reduction schemes, (for example Achilles Certified Emissions Measurement and Reduction Scheme (CEMARS) or Carbon Trust standard).**

**2 page A4 Arial 11 3%**

High scores will be awarded where the Applicant can effectively demonstrate and evidence:

- processes in place to measure, and report energy consumption and greenhouse gas emissions aligned to the GHG protocol Corporate Accounting Reporting Standard
- processes in place to manage energy and carbon emissions and track record of sustained reductions
- an understanding of the energy and carbon impacts throughout their value chain and plans to measure, manage and reduce these impacts
- provide examples of where they have added value to clients through improved energy and carbon management

## Services provided to reduce energy use and carbon emissions with respect to whole life costs

At Morrison Water Services (MWS), our ESG strategy forms the core as to how we work and deliver our contracts, ensuring we maintain focus on environmental, social, and governance standards and performance. Our ESG commitments, detailed in the M Group Services ESG Report 2021–22, are reflected in our company procedures and we systematically incorporate ESG awareness and targets into our contracts and project delivery. We align our contracts to our clients' strategies to ensure we continually improve ESG compliance, supporting communities and delivering on our clients' business plan objectives – delivering a range of sustainability benefits across our projects, such as those described in our two selected case studies below. M Group Services achieved an outstanding ESG risk rating of 8.3 in 2022 when assessed by Sustainalytics.

We are committed to developing and delivering projects that provide environmental sustainability and reduce whole life carbon and waste. Our approach is design-led and we develop our schemes using the carbon reduction hierarchy approach for reducing carbon, based on PAS 2080, where we consider the following priorities: build nothing; build less; build with materials of lower embodied carbon or build using less material or reduce waste.

We collaborate with clients during the early stages to deliver sustainable nature-based solutions appropriate to the distinctive requirements of each individual location. Recently delivered solutions include natural filter ponds and reed beds; and 'bracken bashing' heather using horses and a serrated-edge roller.

We adopt the Circular Economy Procurement Model to help maximise resource efficiency and reduce released carbon, and on the Caledonia Water Alliance (CWA) with Scottish Water, we lead client collaboration platform Circular Economy Forum (SICEF) to exploit circular economy procurement to benefit the environment and reduce costs for our clients and their customers.

## Considering, measuring, managing and reducing energy and carbon impacts

We are developing a 'Below 1.5 degree C' programme for GHG emissions reduction in alignment with the Science Based Targets initiative (SBTi). This programme is designed to reduce our entire value chain greenhouse gas emissions, with an ambitious target of a 50% reduction in GHG for Scopes 1 and 2 by 2030 and the inclusion of Scope 3 emissions. We are actively engaged in collaborating with our clients and supply chains to reduce all carbon emissions across our operations, particularly Scope 3 emissions.

We are also working with international climate consultants EcoAct, who provide support in measuring, reducing, verifying and reporting emissions. For year-on-year reductions, we follow the three-stage model recommended by the Carbon Trust, which involves measuring emissions annually, including fuel consumption, electricity and water usage, and business travel etc.

As a significant portion of our emissions (80%) comes from the vehicles and plant we utilise on site, we have partnered with M Group Services Plant and Fleet Solutions to develop a sustainable transport fleet aimed at reducing fuel consumption and greenhouse gas emissions, in line with our Green Fleet & Plant Strategy. This includes buying or hiring vehicles with the latest technology, fuel-efficient engines, and investigating the use of hydrogen vehicles.

We continue to invest in innovative solutions to reduce our carbon impact, adopting strategies such as using hydrotreated vegetable oil (HVO) as a replacement for diesel, installing solar panels on welfare units, and utilising existing assets over constructing new ones.

We are working and collaborating closely with our supply chain to identify areas for carbon reduction. This involves mapping out the supply chain process, understanding the carbon footprint of product selection, transportation methods, and green energy sourcing. Moreover, initiatives such as contributing to the development and commercialisation of next-generation low-carbon concretes are part of our efforts.

## Understanding and reducing embodied carbon in our goods, services and works

We have recognised that a significant amount of carbon is embodied in the materials and processes used in our services. To address this, we have utilised tools such as contract carbon capture accounting to track and measure embodied and operational carbon emissions for the whole life of assets.

Through the integration of Building Information Modelling (BIM) processes and geographic information system (GIS) technologies, we actively use design and innovation to reduce the need for physical travel and the requirement to print multiple hard copies of documents, thus lowering the embodied carbon

associated with our projects. This also helps us improve our ESG performance by actively reducing fuel and energy usage through optimised logistics and the design and use of energy-efficient buildings.

On one project, we designed out approximately 5,500 m<sup>3</sup> of concrete; reducing carbon by an estimated 16,000 tonnes – 15,000 tonnes from concrete and 1,000 tonnes from concrete transportation.

Our digital design initiatives, such as the use of 3D surveys, have shown potential to reduce carbon impact by minimising the need for site visits and improving the accuracy of our work, thus reducing non-conformances and defects.

We engage in practices such as 'Build Less' and responsible material selection and to reduce our carbon footprint; for example, using restraint joints to eliminate concrete thrust blocks, significantly reducing the amount of concrete required, and thus the embodied carbon associated with its use. We continue to invest in advanced energy control systems, reducing energy consumption and associated carbon emissions of our operations and our clients' facilities.

By promoting services such as mains renovation and lining, we enhance the longevity of existing assets, thereby reducing the need to produce and transport new materials, which also contributes to lowering embodied carbon.

Through the summer of 2021 we successfully delivered a drinking water in-situ spray lining programme, believed to be the first of its kind across the water sector in AMP7. This programme targeted structural and water quality issues with the existing distribution network, including 8km of pipework over the Yorkshire Water region. Spray lining involves lining pipes with a thin layer of resin centrifugally sprayed on to the inner surface of a cleaned pipe. This method has many advantages over the traditional open cut trench method for pipe replacement; especially relating to carbon reduction. Calculating carbon savings on this programme of work, our Engineering Services department followed University of Bath and DEFRA guidelines to build a carbon calculator for this unique process; incorporating geographical, material and plant elements to compare it to the traditional open cut process.



Results showed that spray lining reduced both project cost and embedded carbon by up to 60% and reduced the amount of site occupation by up to 75%.

### Ensuring compliance with the carbon trading schemes in which we participate

We actively participate in the Achilles Carbon Reduce programme (formerly known as the Carbon & Energy Management and Reduction Scheme - CEMARS), which involves rigorous monitoring, measuring, and external reporting of our carbon footprint. This programme complies with the ISO14064:2018 carbon reporting standards, ensuring that our carbon management practices are verified and meet international benchmarks. Our Environmental Management System is certified under ISO 14001:2015, demonstrating our commitment to environmental management and our ability to systematically manage our environmental impacts.

We work with a range of external reporting and auditing organisations, including Sustainalytics, to ensure our governance of Environmental, Social, and Governance (ESG) is measured and meaningful. Our score of 8.6, places us in the top 2% of companies globally and categorises us as at negligible risk.

Carbon management is a regular agenda item during our monthly Operational Board Reviews for each contract. The Board annually reviews our "Journey to Net Zero" strategy, documenting progress and exploring innovative ways to reduce carbon emissions across all contracts.

We are also a member of EV100, reflecting our pledge to transition our 'core' fleet of vehicles to electric, showcasing our proactive approach to decarbonising our vehicle use. Our response shows a systematic and strategic approach to carbon management, with established metrics for measuring and reporting, engagement in recognized carbon reduction schemes, and a commitment to achieving science-based targets. Through our participation in Achilles Carbon Reduce and adherence to ISO standards, we ensure that we are not only compliant with climate-related disclosures but also at the forefront of driving meaningful carbon emissions reductions in our sector.