ENCYCLIS

Sustainability Review

2022

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1.0 Foreword

1.1 Welcome from the Chief Executive

I am pleased to introduce Encyclis's first Sustainability Review since we became a standalone company in July 2022.

This document is an important foundational step as we strive to continually improve our environmental, social and governance (ESG) impacts. The Review effectively sets out the guiding principles and goals that will underpin our future progress, providing transparency to all our key stakeholders.

As a new company, we are building a clear vision of what we want to achieve in the journey towards net zero and the actions that will get us there. We also understand the need to gather data to prove our impact. This interim review details our vision and identifies the data gaps that will be addressed in our future ESG reporting.

I am proud of the progress we have already made. We are striving to be leaders in our industry when it comes to making energy from waste (EfW) as sustainable as possible. We need to be seen as part of the solution on society's wider journey to deliver net zero. We are also committed to providing a safe and healthy workplace, making this a centrepiece of our company culture. Our 'Safety First' campaign prioritises this for all, as detailed later in the Review.

Our commitment to people extends outside of the company through our work engaging local communities and wider stakeholders on the role of waste management in modern society. One significant misconception we will continue to combat is the idea that EfW conflicts with recycling. In fact, the two should work together as complementary parts of a well-functioning waste management system.

Looking to the future, we support the waste management sector's commitment to achieving net zero greenhouse gas (GHG) emissions in the UK and Ireland by 2040, with the backing of respective governments. This includes working closely with the Department of Energy Security and Net Zero (DESNZ), to lead the deployment of carbon capture and storage (CCS) technology for EfW in the first wave of commercial scale development. Encyclis is one of only two EfW businesses selected to enter negotiations for support through the UK Government's CCS cluster sequencing programme.

We are working to make our facilities as efficient as possible, with ambitions to help local communities decarbonise by supplying homes and businesses with heat via district heating networks. We are also committed to reaching as close to 100% circularity as possible in our resources in operations. We will increase the recovery of the residues of the waste treatment process at our facilities of incinerator bottom ash and air pollution control residues. While the path to achieving this in the UK is clear, the laws governing the recycling of these materials in Ireland make this more challenging. As Chief Executive, I am determined that we step up to this challenge regardless of where we operate.

This review is an important first step on our sustainability journey. I look forward to sharing our future successes and challenges with you in the reports that follow.

Owen Michaelson
Chief Executive, Encyclis

1.2 An introduction from the Sustainability Committee Chair

As Chair of the Encyclis Sustainability Committee, I am pleased to highlight the initiatives being undertaken as Encyclis works towards industry-leading performance in this area.

My appointment to this new role is a strong indication of the company's commitment to embed sustainability in its structure and demonstrate importance at a board level.

The Sustainability Committee oversees the company's strategies, goals, policies, procedures, and reporting criteria in relation to ESG matters. The Committee advises the Board on the company's long-term, sustainable success which, with the support of our employees, educates wider society and generates value for shareholders and our stakeholders.

The key priorities for the Committee so far have been on health and safety, alongside energy and resource efficiency. Moving forward, **Encyclis's climate transition plan, progress to net zero, and diversity, equality & inclusion policy** will also be important workstreams for us. The Committee works to ensure that Encyclis's strategy, culture, values, and codes of conduct align with these priorities.

As the Committee Chair, I oversee the procedures used to collect, manage, and monitor sustainability information, including the preparation of statements and disclosures. We are aware of how quickly this area is evolving for all stakeholders, and Encyclis will always aspire to best practice.

The company is in the early stages of its journey, but I am confident that we have the structures, systems and people to achieve our sustainability goals.

Looking forward in 2023, certification in ISO9001, ISO14001 and ISO45001 management systems will be possible as Rookery South ERF achieved this triple milestone. Our focus will be on Newhurst ERF in the full report for 2023 and I look forward to sharing continued progress in future reports.

Miriam Greenwood
Chair of Encyclis
Sustainability Committee

2.0 Introduction

2.1 About us

Encyclis has one of the largest portfolios of energy recovery facilities across the UK and Ireland. In 2022 we had one operational plant in the UK and one in Dublin, with two more being built and a further two in final stages of EPC procurement. We are an active and growing company working to support the circular economy through sustainable recovery of resources processing household and municipal waste.

Encyclis grew out of the UK-based European operation of Covanta Corporation to become a standalone company in 2022 and is now under the ownership of EQT. Encyclis is dedicated to providing a societal service, sustainably processing waste that would otherwise be sent to landfill. There is increased understanding by government and community stakeholders of the role of waste for sustainable energy production and resource recovery. Encyclis is commited to supporting the road to Net Zero and being part of the circular economy.

Encyclis' energy recovery facilities are managed by a highly skilled workforce and are some of the most technically advanced and efficient plants in the world.

Our Purpose, Vision and Mission

OUR PURPOSE:

Encyclis provides a critical sanitation solution for society by managing waste that cannot be reduced, reused, or recycled. In the process, we generate baseload electricity and recover metals and produce substitute aggregates for homes and businesses.

OUR VISION:

More than Energy from Waste

Encyclis is a leader in the safe recovery of energy from waste (EfW), operating highly efficient recovery (R1) facilities in the UK and Ireland.[2] We provide an essential waste management service by efficiently and sustainably treating the residual waste produced by society. We support circular economy principles, recognising that there is, and will always be, some waste that cannot be recycled. We are committed to treating this residual waste in line with the waste hierarchy, through energy and resource recovery and diversion from landfill. At the same time, we work to positively impact the communities in which we operate.

OUR MISSION:

Encyclis is dedicated to:

- Continuing to ensure safe and sustainable waste management using Best Available Techniques (BAT);[1]
- Decarbonising our operations where feasible;
- Continuously improving recovery and recycling rates;
- Facilitating the transition to a circular economy; and
- Using our influence in industry to accelerate a net zero future.

Formerly known as Covanta Europe, Encyclis was created as a stand-alone company in July 2022 following its acquisition by EQT. EQT is a purpose-driven global organisation with an enduring commitment to responsible investment. Its acquisition of Encyclis is an investment in the future of sustainable waste management.

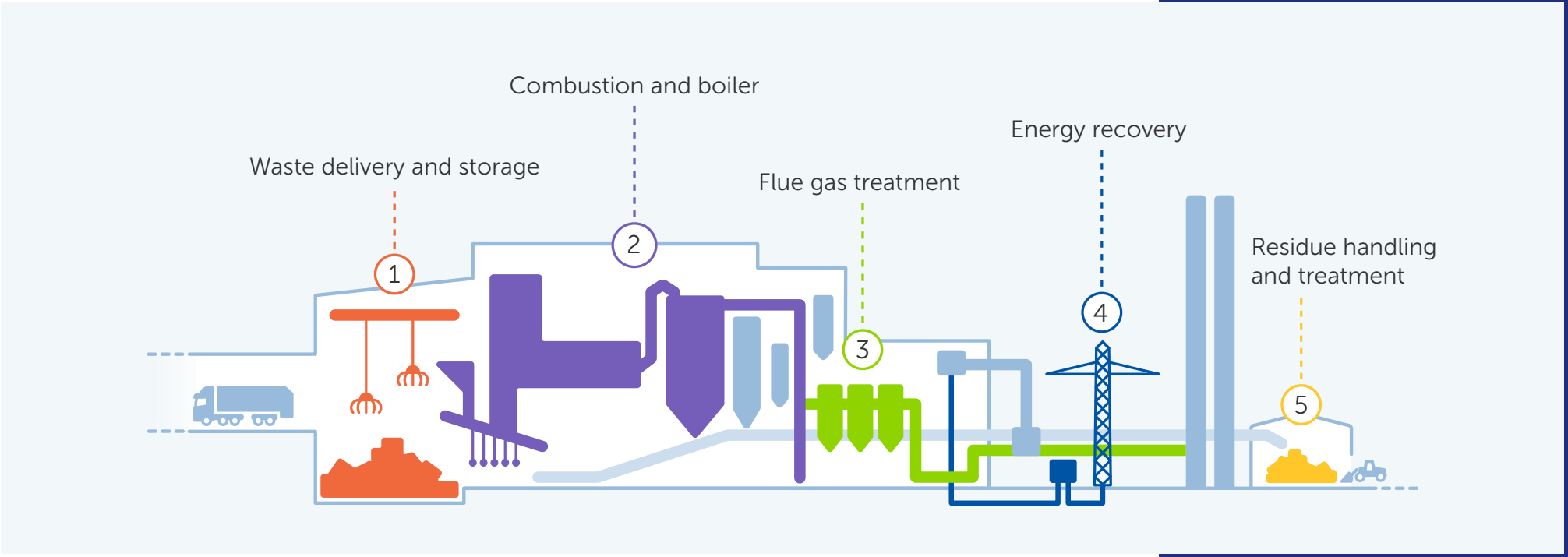
Encyclis has two fully operational EfW facilities located in Dublin, Ireland, and Bedfordshire, UK.

These facilities treat both residual household waste collected by private waste collectors and local authorities, and non-hazardous waste from the commercial and industrial (C&I) sector. A further three facilities are under construction in the UK, two located in England (Leicestershire and Cheshire), and one in Scotland (Stirlingshire). There are two further EfW facilities in final stages of EPC procurement in England in the West Midlands and North Northamptonshire.

[1] The available techniques which are the best for preventing or minimising emissions and impacts on the environment.
[2] R1 status denotes that an EfW facility is considered an Energy Recovery Facility, rather than a waste disposal facility. All Encyclis facilities have R1 status, except for Rookery South. The application for R1 status at Rookery South was made in December 2022 and is awaiting approval from the Environment Agency.

2.2 What is the EfW Process?

Energy from Waste is the process of generating energy in the form of electricity and heat from the primary treatment of residual waste. It uses a carefully controlled post recycling incineration process, operating at high temperatures between 850°C and 1450°C. Metals and residues are recovered from the process and are recycled back into the supply chain preventing primary virgin resource being used, thereby supporting the circular economy.



The importance of recovering energy from waste

The circular economy provides a broad vision and approach for achieving more sustainable and efficient use of materials, promoting effective resource management, and reducing waste.

EfW plays a critical role in the circular economy by allowing us to utilise waste and maximise the value derived from products and materials.

The waste hierarchy is a United Nations model that provides an order of environmental preference for waste management methods. Globally, across the waste management sector, it is recognised that prevention is the best option: the generation of waste should be minimised and materials should be recycled as much as possible. However, where residual waste remains, safe and sustainable treatment is required to ensure the efficient recovery of energy and resources. Disposal or landfill is at the bottom of the chain, as it is considered the most environmentally damaging and therefore should only be used as a last resort.

Despite a reduction in the reliance on disposal, the latest figures from the UK Government Department for Environment. Food & Rural Affairs (Defra), indicate that the UK still sent 12.6 million tonnes of municipal waste to landfill in 2020.[3] Ireland sent 0.5 million tonnes (16%) of residual municipal waste to landfill in the same year according to the Environmental Protection Agency (EPA).[4] EfW facilities provide an essential sanitation service and are the most sustainable solution to managing residual waste that cannot be recycled. This creates value from materials and reduces dependency on fossil fuels and energy imports (particularly in the face of energy security concerns). Without EfW, recovering energy and resources from residual waste would not be possible, thereby increasing the use of virgin materials and increasing primary carbon emissions.

The composition of the residual waste we manage is variable and highly dependent upon the decisions taken by our waste suppliers, who are ultimately households and businesses that generate waste. We will continue to work with them to ensure the material provided to our facilities cannot be reused or recycled. At the same time, we will continue to recover as much as possible, thus contributing to our target of reaching sustainable operations and supporting the industry target of net zero by 2040.[5]

We are also strongly supportive of efforts to remove problematic materials, such as plastics, from residual waste streams and continue to advocate for changes in policy and legislation to allow more to be done.

3 https://www.gov.uk/government/statistics/uk-waste-data/uk-statistics-on-waste#biodegradable-municipal-waste-bmw-sent-to-landfill
4 https://www.epa.ie/our-services/monitoring--assessment/waste/national-waste-statistics/municipal/#:~:text=Ireland's%20landfill%20rate%20for%20municipal,15%20per%20cent%20in%202019.
5 'Net zero' means that there are not, on balance, more GHGs being released into the atmosphere than are removed. It requires reducing emissions to as close to zero as possible, alongside implementing solutions for GHG removal from the atmosphere.

2.3 About this Review

We understand the importance of considering how external issues affect our business and how our operations impact local communities and the wider world.

To ensure that we consider a holistic range of issues, we commissioned Eunomia Research & Consulting Ltd to lead the first review of the ESG issues that are most important to our business.

This process, termed a double materiality assessment (DMA), looks at sustainability topics which are material to our business from two perspectives:

1. **The impacts that a company's activities pose to the environment and society and**
2. **Sustainability issues that impact on the performance of the company.**

2022: 1,070,573 tonnes of residual waste processed

2022: 868,026 MWh of electricity exported

Building on widely used sustainability frameworks (such as the Global Reporting Initiative (GRI) Framework, the UN Sustainable Development Goals (SDGs). and the SASB Standards), government publications and NGO reports relevant to the UK and Irish EfW sectors, the review shortlisted 22 sustainability topics most relevant to Encyclis.

As this is our first sustainability performance review, the focus is on our operational EfW facilities and Lthat of our London Head Office.

This sustainability review for 2022 provides a detailed insight into our current position and expresses our future ambitions. Its purpose is to communicate how we measure and will improve our impact on the environment, our people, and the local communities we serve. Coming at an exciting time for the business – under new ownership and entering a period of significant expansion – it presents an opportunity to recognise both the achievements made so far and the challenges to delivering sustainable EfW solutions. It serves as the start to our sustainability journey, from which we will continue to build, improve and expand in the years to come.

The shortlisted topics were evaluated with internal and external stakeholders via a survey or interview, to capture a range of perspectives on their level of relevance. During this process, internal stakeholders (including employees, board directors and investors) and external stakeholders (comprising community members, local councillors and trade associations) participated. The stakeholder feedback was then combined with the literature and used to score the shortlisted issues.

The scores were presented and validated at a workshop with the senior management of Encyclis. The 22 material topics identified in the DMA form the contents of this review.

The DMA matrix on the right shows the environmental, social, and governance topics identified as part of this review. The x-axis represents the impact of a topic on the overall business value (financial materiality); the y-axis represents the impact of the business, in relation to that topic, on the environment and society (impact materiality). The topics are placed within the matrix according to their rating against these two dimensions, from medium to high.

Environmental

GHG emissions	Climate change is one of the most serious issues facing our world today. We aim to reduce our emissions on the path to deliver net zero.
Climate change adaption	Although the precise impacts of climate change are unpredictable, we aim to ensure that we are resilient and that our operations and supply chains are robustly procured.
Emissions and air quality	Our facilities operate to the highest environmental standards so that we act as a 'good neighbour' in the areas where we work.
Biodiversity and habitat protection	Biodiversity is essential for health, food security, disease control and livelihoods. Our aim is to protect and enhance biodiversity and habitat protection.
Transport congestion	Vehicle movements are optimised to reduce impacts to communities by specifying the timing and routing of deliveries.
Odour control	Odour is controlled so that it does not negatively impact our communities.
Recovery and disposal of IBA & APCr	We seek to ensure that we are not reliant on landfill for the management of these residues.
Efficient water use	We seek to reduce our consumption of water where possible.
Energy efficiency in business activities	During the processing of non recyclable waste, some electricity and heat is consumed, it is key that energy efficiency is maximised to mitigate environmental impacts as well as reduce costs.
Recovering energy from waste	Our facilities help to produce baseload electricity. We can also help our local communities reduce their carbon emissions, through the provision of heat to service nearby homes and businesses.

In Reports for 2023 onwards, we will seek to review these topics and develop suitable indicators that can be used to monitor their progress.

Governance

Good governance and business ethics	We have developed a structure and management processes to enable our sustainability commitments and responsibilities to be monitored and delivered.
Regulatory compliance and policy development	We ensure that our operations comply with all permits and permissions.
Business model resilience and financial performance	We ensure that the Company is able to deliver its strategy of creating long-term sustainable value for all of our stakeholders.
Risk management	We identify, assess and manage risks and opportunities throughout our business.
Availability of raw materials	We rely on several materials which are essential to the operation of our facilities and monitor the supply chain to ensure procurement resilience.
Modern slavery	Our priority is to prevent modern slavery throughout our organisation and supply chain.

Social

Health and safety in the workplace	We continually develop and improve our occupational health and safety performance by providing a clear objectives framework, as well as fostering a culture of Safety-First approaches.
Career development and training	Skilled, motivated employees are essential to the sustainability and reliability of our services. We provide high-quality employment and champion local jobs whenever possible.
Living wage	We recognise the importance of providing employees with a real living wage.
Diversity and equal opportunity	We believe a diverse and inclusive workforce results in better performance for our organisation.
Community relations and education	Having the support and trust of the local community is very important to us. We are an engaged neighbour and make efforts to maintain strong relationships with our local communities.

ESG Achievements

ENVIRONMENT

Our facilities fully comply with all of our environmental permits. We have already been monitoring compliance against the new BREF emissions limits ahead of their implementation in 2023.

ENVIRONMENT

Incinerator Bottom Ash (IBA) from both our Rookery South and Dublin facilities are recycled for use in the aggregates industries

ENVIRONMENT

CCS will be essential to decarbonise the waste management sector. We are working with the UK Government as one of two EfW partners to help deliver commercial scale carbon capture and storage technology at our Protos facility, which is currently being developed.

GOVERNANCE

We have developed a structure and management processes to enable our sustainability commitments and responsibilities to be monitored and delivered.

SOCIAL

We're developing community education and engagement programmes and a range of skills and training opportunities at our key sites for our employees.

SOCIAL

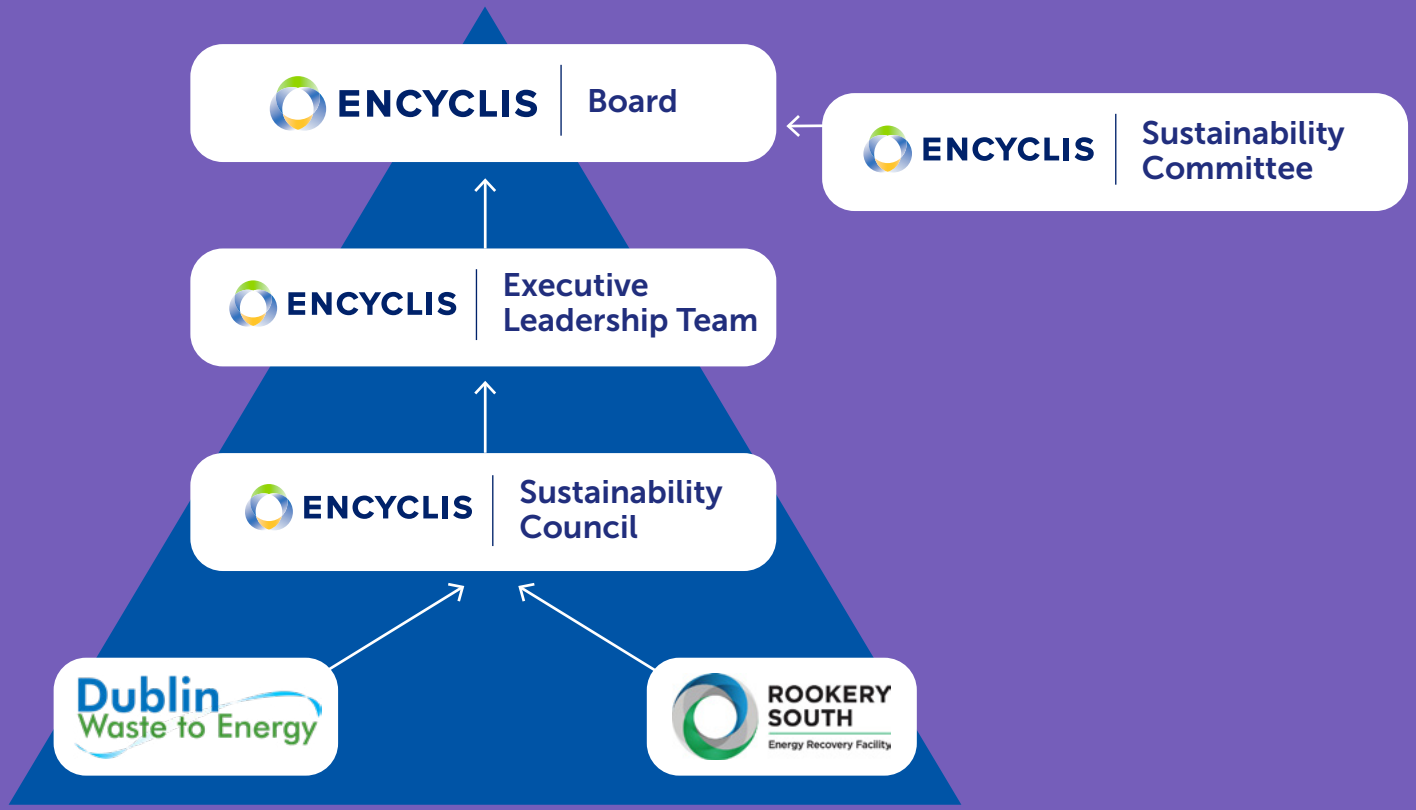
A strong Health & Safety culture is a core element of our business. We prioritise a safe working environment across the whole business and have 'safety stop' empowerment for all staff across the facilities

3.0 Governance

3.1 Sustainability governance at Encyclis

At Encyclis, we have created a robust governance structure and management process to ensure that our sustainability commitments and responsibilities are monitored and delivered.

We take transparency and accountability very seriously and always aim to ensure that we are conducting our work to high ethical standards.



Board of Directors

Encyclis has an independent leadership team with a delegated authority structure, providing a high level of governance and control throughout the business.

The Board contains members of the Encyclis Executive Leadership Team, alongside external experts. Our Board defines overall project governance and meeting cadence, sets agendas for meetings to maintain focus as key milestones approach, aligns our tracking and reporting process, and agrees key performance indicators (KPIs) by initiative. Our structure is also audited by external parties on an annual basis.

Remuneration governance and strategy is overseen by the Encyclis Remuneration Committee, and sustainability at director level is led by Victoria Merton, Director of Sustainability, Policy and Communications.

At Encyclis, 15% of senior management bonuses are linked to the delivery of key business initiatives, which includes a focus on sustainability.

Chair	**Dr. Philip Nolan**
Chief Executive Officer	**Owen Michaelson**
Chief Financial Officer	**Mark Corben**
Board member & Chair of Sustainability Committee	**Miriam Greenwood**
Board member & Chair of Audit & Risk Committee	**Elizabeth Barber**
Board member (financial & sustainability expertise and investor overview)	**Anna Sundell**
Board member (EfW technical expertise)	**Karl-Heinz Muller**
Board member (waste market expertise)	**Mark Burrows-Smith**
Board member (financial expertise and investor overview)	**Benjamin Bygott-Webb**

Sustainability Committee

Encyclis has a Sustainability Committee which was appointed by the board to take day-to-day responsibility for sustainability matters in the business. It comprises the Chair and other Non-Executive Directors, including the Chair of the Audit and Risk Committee.

Committee members have the appropriate knowledge, skills and expertise regarding sustainability matters to carry out the duties and responsibilities delegated by the Board, but are also responsible for, among other things:

- Following current trends and identifying emerging sustainability risks and developments in the regulatory landscape, to advise the board on changes required to the ESG strategy.
- Overseeing the regular review and updating of Encyclis's policies and procedures, as well as the controls for the collection, management and monitoring of sustainability information.
- Reviewing and monitoring the mechanisms for stakeholder engagement and advising the board on the outcomes of the efforts.

Sustainability Council

At Encyclis, we have a dedicated Sustainability Council (henceforth referred to as 'The Council'), composed of a multi-disciplinary group with experience across the portfolio. The Council provides the 'peer review' element to developing sustainability processes across Encyclis.

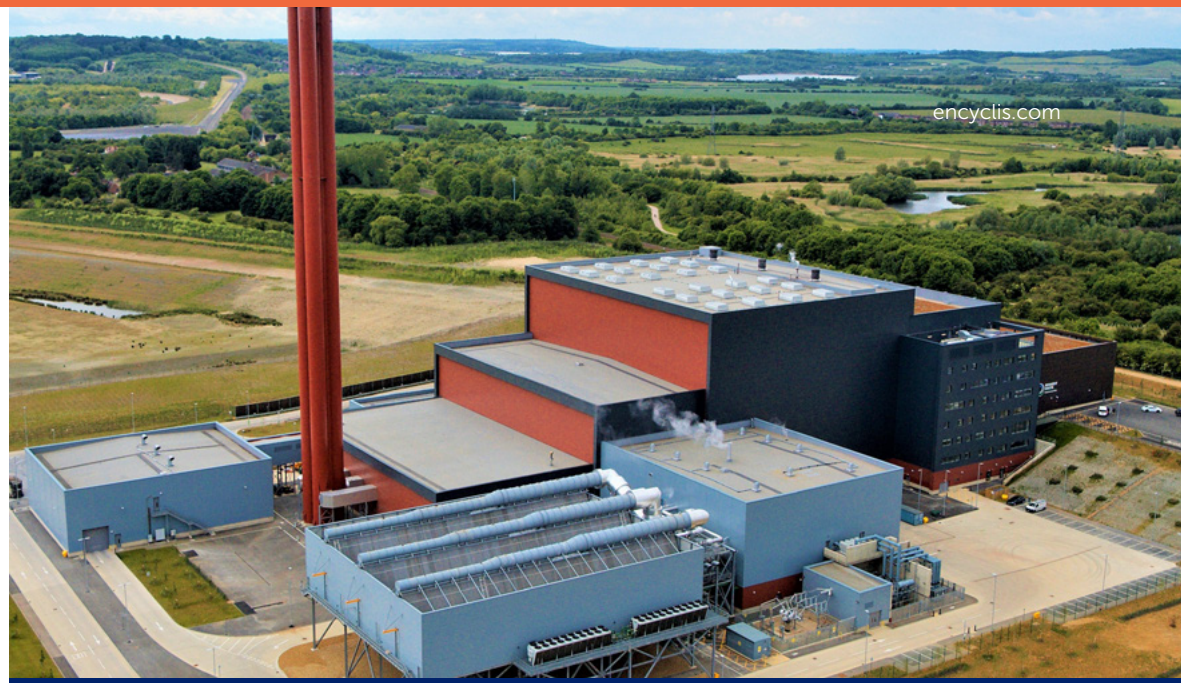
This enables a wide and deep connectivity across all departments, to ensure compliance with ESG process and performance metrics and to set an appropriate sustainability strategy.

The Council is comprised of nine subject matter experts who together have different technical expertise and perspectives from across the portfolio. The Council meets every eight weeks and is led by the Chair, the Director of Sustainability at Encyclis, who reports into the Chief Executive and the Encyclis Board. To ensure alignment, the Sustainability Committee Chair engages directly with the council on an annual basis. It was formed in October 2022 and has met four times to date.

3.2 Regulatory compliance and policy development

The waste management sector is strictly regulated to minimise risk to human health and the environment.

Our facilities must comply with environmental permits and are subject to regular inspections from regulatory bodies who apply stringent guidelines during all phases of operation. These bodies are responsible for setting health and safety guidelines, safe emission limits and enforcing regulations which require continuous, real-time monitoring and reporting.



An Integrated Management System (IMS) brings together our systems, processes and standards into one unified framework. This helps improve performance and efficiency while establishing accountability and providing oversight to ensure compliance with our regulatory obligations. Failure to comply with legislation could result in health and safety issues, emissions exceedances, fines, or removal of our permission to operate entirely.

Our Rookery South ERF facility has IMS operating to ISO 9001, 14001, and 45001 standards. A gap analysis of policies and procedures was conducted in December 2022 with the aim of achieving certification for the ISO standards we follow at Rookery South in 2023. **Our Newhurst ERF and Dublin Waste to Energy facilities will be an extension to the scope of this certification in 2024.**

The sector has historically been driven by policies such as landfill taxes and will likely continue to be shaped by policy and legislation. It is therefore important that we keep abreast of policy changes, such as the potential amendment to the EU and UK Emissions Trading Schemes (ETS) to include EfW facilities. This would incentivise emissions reductions as it supports the funding of carbon capture and storage (CCS) technology needed for the industry to reach net zero.

Trade Association Memberships

As an integral part of the waste management system, we consult with governments through industry groups and trade associations. This helps to ensure new policies are created to support the circular economy and net zero agendas.

Encyclis plays an active role in the following trade associations:

- Irish Waste Management Association (IWMA);
- Confederation of European Waste to Energy Plants (CEWEP);
- Irish Business Employers Confederation (IBEC);
- European Waste Management Association (FEAD);
- Environmental Services Association (ESA);
- Chartered Institute of Wastes Management (CIWM);
- Carbon Capture and Storage Association (CCSA);
- Resource Recovery UK (Encyclis CEO sits as the current Chair).

3.3 Business model resilience and financial performance

Given the Group's principal activities, the Board takes a long-term approach to its decision-making to ensure that the Company is able to deliver its strategy of creating long-term sustainable value for all of our stakeholders.

The Board reviews the financial and operating performance of the Group (including dedicated attention to the environmental and health and safety performance). The Board also reviews key risks and opportunities in presentations, proposals and business cases. The main KPI tracked is the monthly EBITDA vs budget. Waste tonnage and energy output in MWh are also tracked on actual vs budget.

Encyclis is committed to providing products and services which meet or exceed client expectations. To ensure this is consistent throughout the business, senior management is responsible for establishing our Quality Policy Statement and ensuring requirements are implemented. We use clear indicators to measure performance, drive continuous improvement and review quality performance.

As the environmentally preferred alternative to landfill, the number of EfWs in the UK and Ireland has grown in line with waste generation over the last decade. We have been keen to ensure that we develop facilities in locations where there is a strong need for landfill diversion and safe processing of residual waste. We anticipate the amount of residual waste will decrease over the next decade as policies—such as England's Resources & Waste Strategy, the UK Plastic Packaging Tax, the Irish Commercial Waste Regulations, and Deposit Return Scheme—continue to drive efforts to increase recycling and prevent waste.

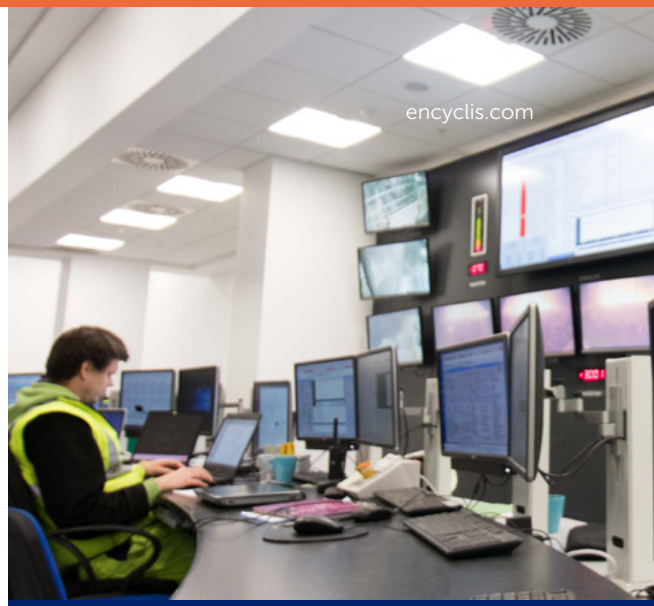
It is expected that residual waste will continue to exist. Our role is to ensure that we process what is left safely and maximise the recovery of resources. With this future in mind, we have developed a five-year strategy that aims to strengthen and futureproof the core of our business and ensure we are able to pursue opportunities and diversify.

This includes:

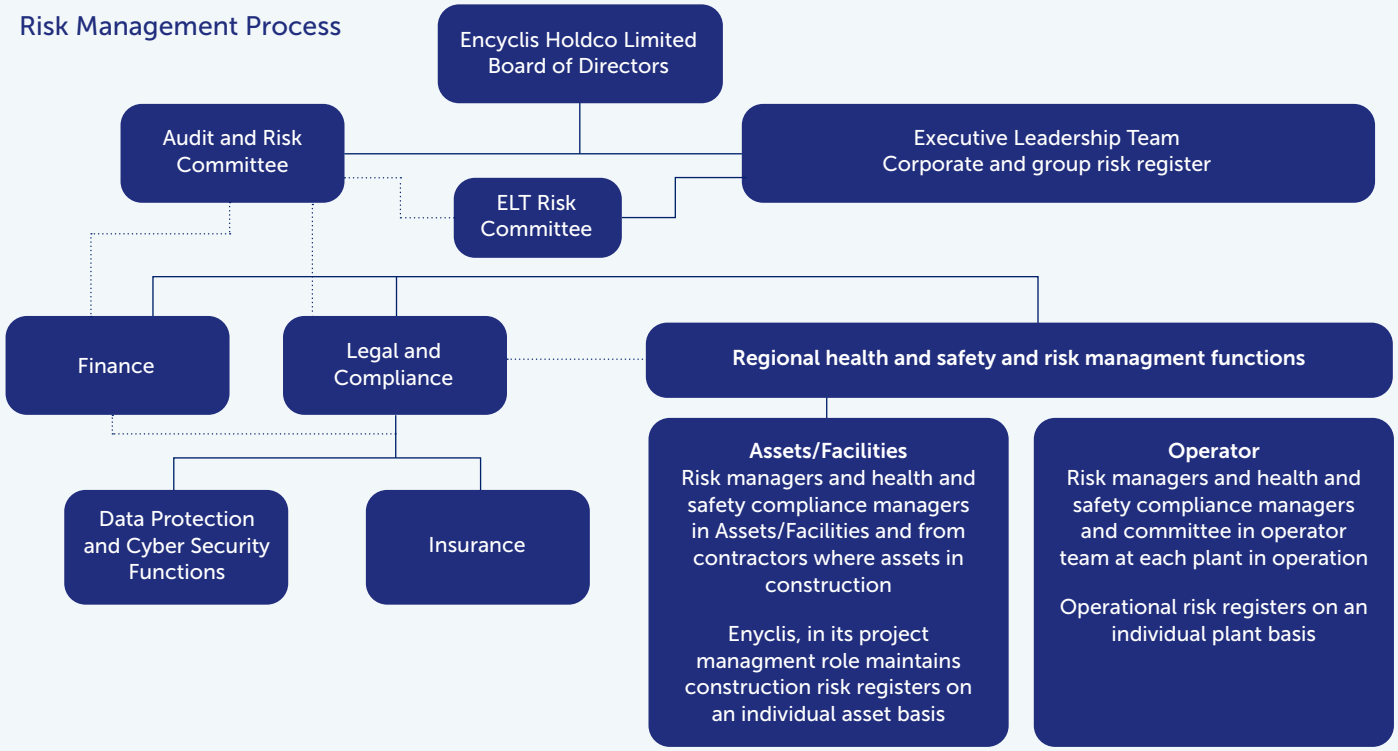
- Ensuring safety underpins our fundamental business for staff, guests, and communities through all our operations;
- Fulfilling our net zero ambitions by further decarbonising our operations, in particular working with the UK Government to install CCS technology across the portfolio, beginning with our Protos ERF facility in Cheshire;
- Maximising our investment in district heating infrastructure where feasible, to support community and business decarbonisation and exploring synergies with local authorities; and
- Switching to sustainable start-up fuel and exploring opportunities to channel the energy we produce into developing zero emission power to use during outages: more specifically, a target to install solar panels and consider electrolysis as a means to generate hydrogen in order to fuel vehicles on site.

3.4 Risk management

Risk management is integral to our business and we are committed to making fast and accurate risk identification a core capability to minimise negative financial, environmental and social impacts.



Risk Management Process



Key Risk Management: CV of waste

Calorific Value (CV) is the amount of energy within waste. EfW facilities have CV limits to ensure safe and efficient processing of waste. Our waste collection suppliers are contractually requested to reduce the CV ahead of delivery to site. In the case of plastics (which have a very high CV), separation and recycling is preferable from a waste hierarchy perspective, as well as operationally for EfW facilities. We will continue to support our waste collection suppliers, to promote better plastics recycling activities.

3.5 Availability of materials & products

At Encyclis, we rely on several materials which are essential to the operation of our facilities.

These are used to treat flue gases from the combustion process and ensure that particulates and potentially hazardous elements are filtered and 'scrubbed' before being released to the atmosphere via the flue stack.

It is crucial that we ensure a reliable supply of these materials and have thus developed robust plans to secure access to lime, sodium hypochlorite, activated carbon, and ammonia. We also ensure that the handling, storage, and use of these materials is carried out safely and in compliance with Environmental Permit conditions.

3.6 Modern slavery

Modern slavery is the exploitation of individuals through slavery, servitude, and forced or compulsory labour. We adopt a zero-tolerance approach to this and recently published Encyclis's first modern slavery statement.

Our priority is to prevent modern slavery throughout our organisation and supply chain. We deliver training workshops with our Purchasing Managers and HR professionals to help our employees understand how to identify signs of modern slavery and human trafficking. Since the beginning of our operations, we have recorded zero modern slavery breaches.

As part of our procurement process, we issue due diligence questionnaires to new suppliers, with questions about their employment practices, requiring them to sign a compliance statement confirming that their practices are in line with our own zero-tolerance approach. Encyclis's standard terms of purchase and supply place contractual obligations on third parties that we engage with to ensure that they comply with the requirements of the Modern Slavery Act 2015. However, compliance can only be tested through audits and more will be done through this process to check that our suppliers are truly compliant.

4.0 Environment

4.1 Greenhouse gas emissions

Encyclis has an Environmental Policy Statement in which we commit to endeavour to avoid environmental harm in the provision of our services.

Encyclis's role in minimising emissions

Climate change is one of the most serious issues facing our world today. The presence of man-made greenhouse gases (GHGs) in the atmosphere is the primary cause of climate change.

Sending waste to landfill leads to methane and carbon emissions, as well as smaller quantities of other gases. The waste sector was responsible for 4% of UK GHG emissions in 2021 (with methane accounting for 89% of these). By comparison, 26% of GHG emissions came from the transport sector, 20% from energy supply, 18% from business, 16% from the residential sector, and 11% from agriculture.[6]

Over the last 20 years, the reduction in landfill has enabled UK and Irish waste management industries to dramatically reduce their GHG emissions. For example, methane generated from landfilling in the UK decreased from 3,028 kilotons (kt) in 2015 to 1,716 kt in 2020, a result of reductions in the amount of waste landfilled, along with the implementation of methane recovery systems. However, it remains the biggest area for emissions reduction improvement.[6] Methane has a global warming potential around 80 times greater than carbon dioxide over a 20-year period, although its relative impact decreases over time, meaning that it is a powerful contributor to global warming in the short term.[7]

EfW plays a vital role in redirecting waste away from landfill, thereby making it pivotal to reach the waste sector's methane targets. It is critical that the waste industry continues to reduce its emissions and Encyclis fully supports the sector's commitment to achieving net zero by 2040.

By investing in and operating EfW infrastructure, we are helping to lower the UK and Ireland's emissions profiles when compared with methane emitting landfill. However, we recognise our operations directly contribute to GHG emissions, which are carefully monitored. Therefore, we have mapped our GHG inventory for 2022 covering the Rookery South ERF and Dublin Waste to Energy facilities, in line with the Greenhouse Gas Protocol.[8]

6. UK Greenhouse Gas Inventory, 1990 to 2021: Annual Report for Submission under the Framework Convention on Climate Change, Department for Energy Security and Net Zero, April 2023, https://uk-air.defra.gov.uk/assets/documents/reports/cat09/2304171441_ukghgi-90-21_Main_Issue1.pdf
7. UNECE website, accessed 06/06/2023, https://unece.org/challenge
8. Greenhouse Gas Protocol website, accessed 31/05/2023, https://ghgprotocol.org/

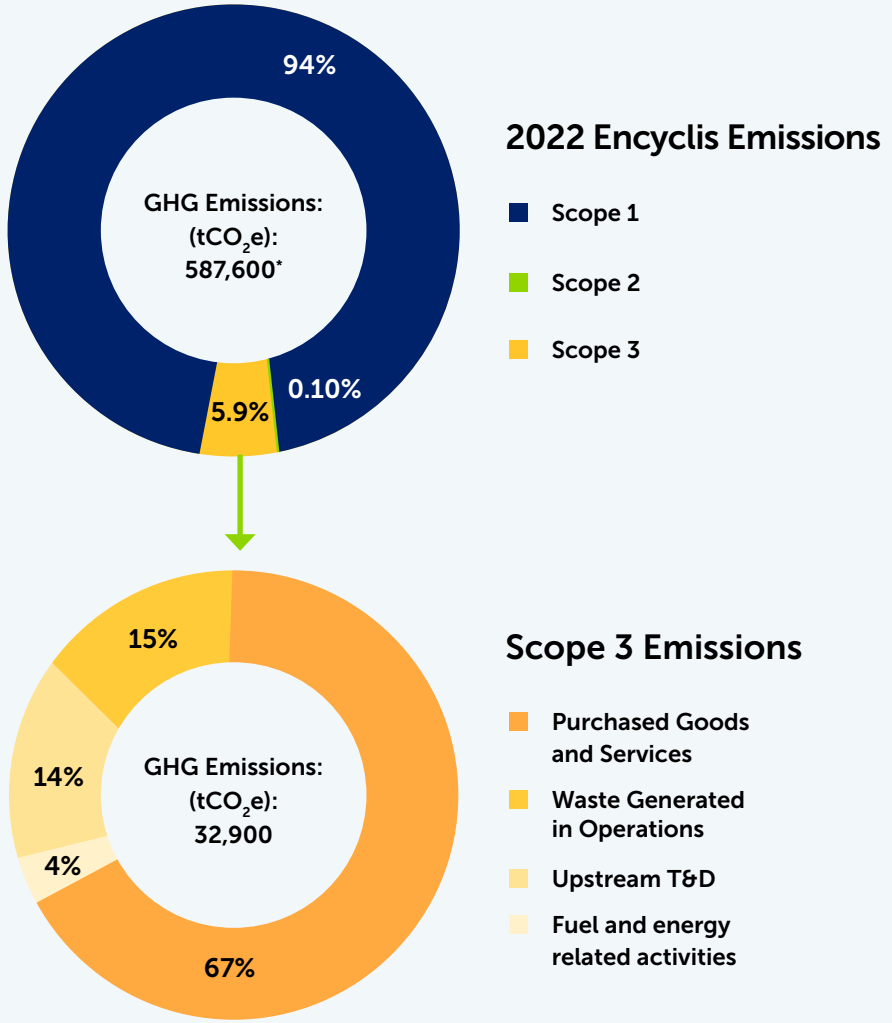
Quantifying emissions across our portfolio

In 2022 our total emissions for Dublin and Rookery were 587,600 tonnes carbon dioxide equivalent (CO_2e).*

Scope 1 emissions are the direct emissions we are responsible for and contribute the vast majority. These are due almost entirely to CO_2 being released during the combustion of waste, which is measured by our Continuous Emissions Monitoring Systems (CEMS). Scope 2 emissions include the indirect emissions from the generation of power we buy, including the purchase of electricity, which given the energy generation capacity of EfW, is small in relative terms.

Scope 3 covers indirect emissions that occur in our value chain. We include four of the fifteen Scope 3 categories, as the other eleven were either irrelevant (e.g., relating to sold products) or insignificant (e.g., business travel). Most of our Scope 3 emissions are associated with purchased goods and services, within which pollution control materials such as activated carbon, lime, sodium hydroxide, and ammonia represent the main GHG hotspot. Emissions associated with inbound transport of waste (Upstream T&D) and outbound transport of waste products (incinerator bottom ash (IBA) and air pollution control residues (APCr)) (Waste Generated in Operations) also contribute to our Scope 3 emissions.

Most of our emissions across Scopes 1, 2, and 3 stem from combusting residual waste. Residual waste feedstock is variable and comprises a mix of biogenic (e.g., biowaste, paper and cardboard) and anthropogenic fossil-based resources (e.g., plastics).



* The total direct emissions from the combustion of waste is 1,185,472tCO_2e. Following the GHG Protocol guidelines biogenic emissions can be considered carbon neutral, however they are reported for a comprehensive and transparent report.

Decarbonisation Plan

It is critical that the waste industry continues to reduce its emissions and we fully support the sector's commitment to achieving net zero by 2040. A key priority moving forward for us is to build on this work through the publication and delivery of our decarbonisation strategy for achieving net zero GHG emissions across our portfolio. We intend to publish this strategy during 2024.

The strategy will seek to address our Scope 1, 2 and 3 emissions, but also help our local communities reduce their emissions.

Planned Scope 1 Emission Reductions Activities

Carbon capture and storage	Protos ERF will be capable of capturing more than 380,000 tonnes of CO_2. It has been chosen to partner with UK Government in the DESNZ cluster sequencing program to bring forward commercial scale CCS on industrial emitters. It is a member of the HyNet industrial cluster. Plans to retrofit CCS at Rookery South and Dublin WtE are being developed simultaneously with technical solutions using rail and shipping transportation for the captured CO2 from each site.
Reduction of plastics	Residual waste is processed to specified and regulated environmental standards at all our sites. We support the waste hierarchy and recycling targets by working with waste suppliers to implement contractual requirements to reduce CV.
Decarbonise our start-up fuel	We will explore replacing diesel with low-carbon start-up fuels such as biogas, biodiesel, and hydrogen to eliminate operational CO_2.
Yellow mobile plant	We will explore moving to electric/hydrogen to replace diesel for our yellow mobile plant

Planned Scope 2 Emission Reductions Activities

On-site renewables	We are seeking to install solar panels on sites, to boost power output and reduce reliance on imports during downtimes.

Planned Scope 3 Emission Reductions Activities

IBA and APCr recycling	Our goal is to ensure 100% of our IBA and APCr is recovered by 2030
Employee travel	We are seeking to develop an employee electric car and bike scheme with subsidised on-site charging points.

Planned Local Community Reductions Activities

District heating solutions for local communities	We are working with local authorities and partner companies to integrate our EfW plants with local heat networks.

To meet our net zero aspirations, we need to continue reducing our emissions. We are at the forefront of efforts in the sector to install carbon capture and storage (CCS) technology, which we see as being critical to decarbonise the waste management sector. CCS for EfW facilities involves separating carbon dioxide from the flue gas created during the combustion and treatment of waste, so that it can either be used in industrial processes or safely stored underground. Based on current technology, CCS is the only potentially available route to achieving net zero for the EFW industry in the UK. The waste management sector is leading the way on commercial scale deployment and our work with the UK Government to deliver it is critical for decarbonisation of UK industry.

As part of implementing CCS at our remaining UK facilities, we will also capture the biogenic carbon contained in the organic matter present in the waste stream. We measure the biogenic and fossil carbon dioxide present in the combustion gas in the stack, and our latest measurement at our Dublin Waste to Energy facility indicated a higher proportion of biogenic at 55% of the total emissions.[9]

Where possible, we are also taking actions to reduce our direct emissions. Our target is to replace diesel with low-carbon start-up fuels and maximise the energy efficiency of all operations. We have also installed electric car charging points at our Rookery South ERF and Dublin Waste to Energy facilities and are seeking to work with our waste suppliers to reduce the CV of the residual waste provided.

How does biogenic carbon capture deliver negative emissions?

In the natural carbon cycle, plants remove and store carbon dioxide from the atmosphere through the process of photosynthesis. If plant matter is burned in EfW with CCS, the biogenic carbon contained within this organic matter is not released again as it would have been in the natural carbon cycle. Whereas CCS of fossil carbon removes carbon released outside of the natural cycle, CCS of biogenic carbon goes beyond this to achieve negative emissions.

CCS at Protos

While the technical effectiveness of CCS technology has been proven, its rollout across the industry is reliant on government support and an appropriate regulatory framework.

Encyclis is playing a leading role in working with the UK Government on these issues, being one of only two waste management businesses to be successfully shortlisted to enter negotiations for support through the CCS cluster sequencing programme. EfW projects account for 25% of the sectors chosen to progress. Subject to the successful completion of this programme, we aim to start the construction of CCS at our new Protos ERF in Cheshire in 2025.

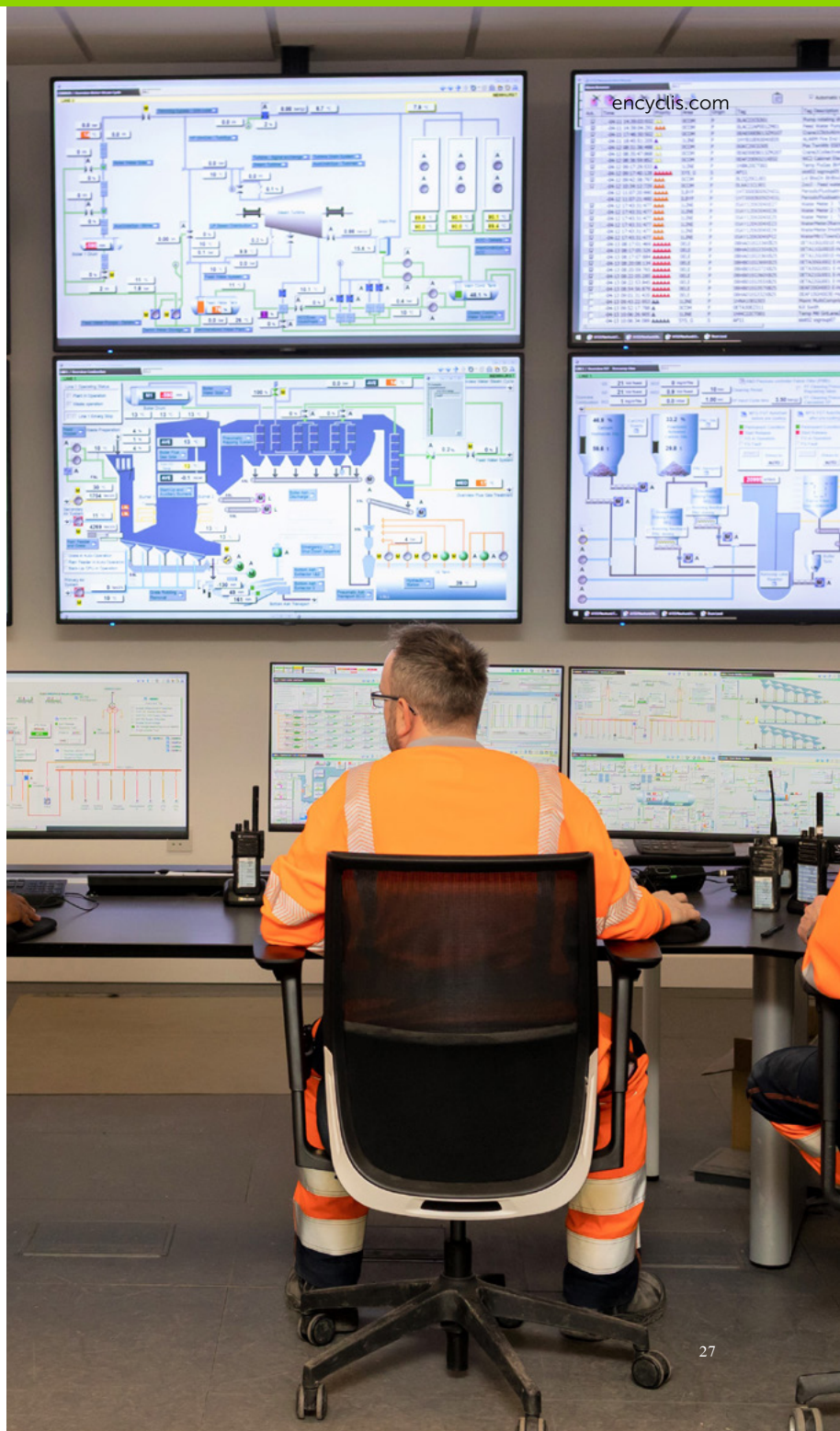
Successful deployment of CCS will see the plant capturing upwards of 380,000 tonnes of carbon dioxide per year. This investment will stimulate further collaboration across the supply chain, ultimately enabling the waste sector to support the UK carbon network, which will have a multiplier effect on economic growth and job creation.

9. The result was obtained using a laboratory test of our flue gases to identify a radiocarbon isotope (also known as Carbon-14, C14 or 14C), a naturally occurring isotope of carbon that is radioactive and decays in such a way that there is none left after about 45,000 years following the death of a plant or animal. Its most common use is radiocarbon dating by archaeologists and used to calculate the proportion of biogenic carbon.

Adapting to climate change

Although the precise impacts of climate change are unpredictable, we aim to ensure that we are resilient and that our operations and supply chains are robustly procured.

Our facilities are in regions that are less likely than others globally to be severely impacted by climate change in the short term. At our Dublin Waste to Energy facility, we carried out a Climate Change Risk Assessment in 2022, sponsored by the Environmental Protection Agency, which confirmed this. We may, however, encounter extreme weather events, especially heatwaves in summer, which can cause operational impacts to our facilities. We will continue to reassess climate-related risk over the coming years and will take necessary precautions to mitigate these, including complying with the Task Force on Climate-Related Financial Disclosures as they fall due.



4.2 Our impact on local communities

Emissions and air quality

Encyclis facilities operate to the highest environmental standards so that we act as a 'good neighbour' in the areas where we work.

All emissions to air from our facilities are monitored 24 hours a day, 7 days a week. These monitoring systems are called CEMS.

To maintain the accuracy and availability of the instruments, analysers must comply with quality assurance levels 1, 2 and 3 (under BS EN 14181) as per Environmental Permit requirements.

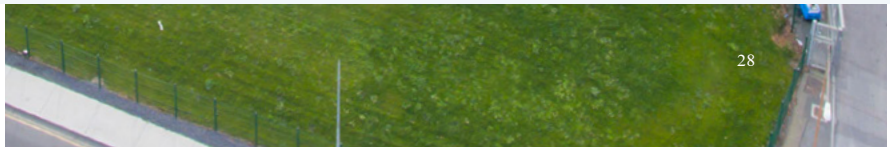
Emissions from our facilities are summarised below as a percentage of the Emissions Limit Values (ELVs) allowed within the Environmental Permits.

As shown in the table on the right our actual emissions are well below ELV: over 90% below for most parameters, and 30% below for NOx where we allow a lower tolerance to limit the amount of chemicals (such as ammonia) that we use.

There are other emissions which are monitored periodically on a quarterly or 6-monthly basis (e.g., mercury or dioxins). This testing is undertaken by an independent third-party organisation certified by the Environment Agency (EA). All emission data and other exchanges of information are submitted to the EA and EPA for assessment.

Parameter	Encyclis Emissions (Daily Average) % below ELVs	Daily Average ELVs (mg/Nm^3)
NOx (Nitrogen Dioxide)	30%	200
CO (Carbon Monoxide – 10 min)	90%	50
SO_2 (Sulphur Dioxide)	92%	50
HCL (Hydrogen Chloride)	92%	10
TOC (Total Organic Carbon)	95%	10
Dust (Particulate Matter)	95%	10

Note: Daily Average Summary for all facilities for 2022.



Biodiversity and habitat protection

Biodiversity is essential for health, food security, disease control and livelihoods.

It also offers protection from environmental and ecological disasters. Encyclis's Sustainability Committee oversees that biodiversity and nature are safeguarded and pollution is minimised during construction and operations, in compliance with EA requirements and our Environmental Policy Statement. We are supportive of the Biodiversity Best Practice Guide developed by the ESA and actively seek to ensure implementation of the guidance within our operations.[10]

We contribute to biodiversity protection by increasing landfill diversion, which helps reduce the harmful impacts on local habitats. At Encyclis's Rookery South ERF facility, we also work with the Forest of Marston Vale Community Forest Trust to help support tree-planting and rewilding in the area surrounding the site.

Transport congestion

Vehicle movements to and from sites have the potential to negatively impact nearby residents through increased noise and traffic congestion.

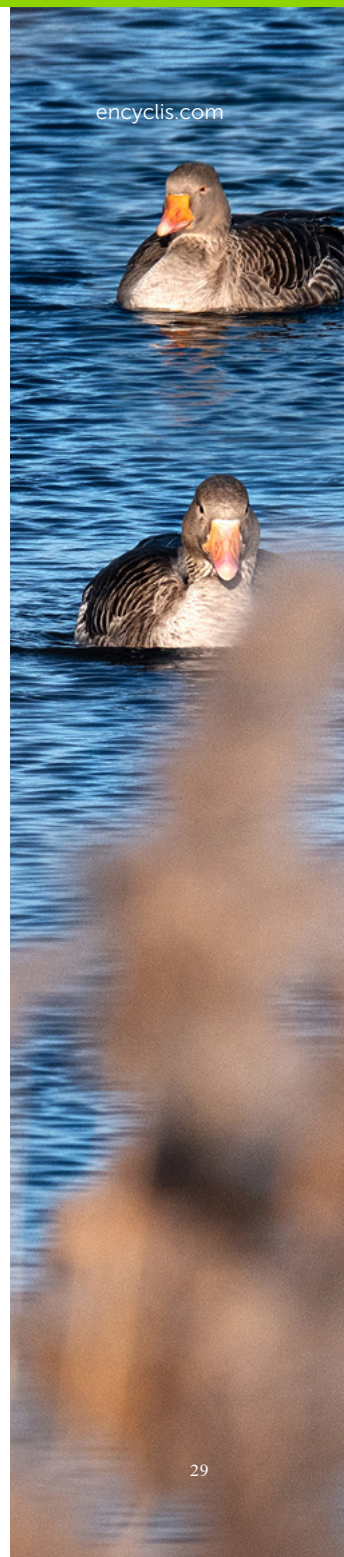
These potential impacts are regulated in planning consents and we work to minimise disruption to the local communities. Potential impacts are assessed as part of the new site selection for our facilities. For example, our Dublin Waste to Energy site was selected within an industrial area, away from residents but ensuring good access for waste vehicles.

During operations, vehicle movements are optimised to reduce negative impacts to communities by specifying the timing and routing of deliveries. We ensure that waste is delivered at specific times and via pre-arranged delivery routes at each of our facilities.

Odour control

In EfW facilities, the main potential odour emission source is the waste storage bunker.

Encyclis has invested in negative pressure storage bunkers for its facilities where the negative pressure stops odours from being released. Through BAT and in line with mandated requirements, it also ensures all odorous air is used in the combustion chamber as primary air feed. This is monitored and controlled in accordance with our permits.



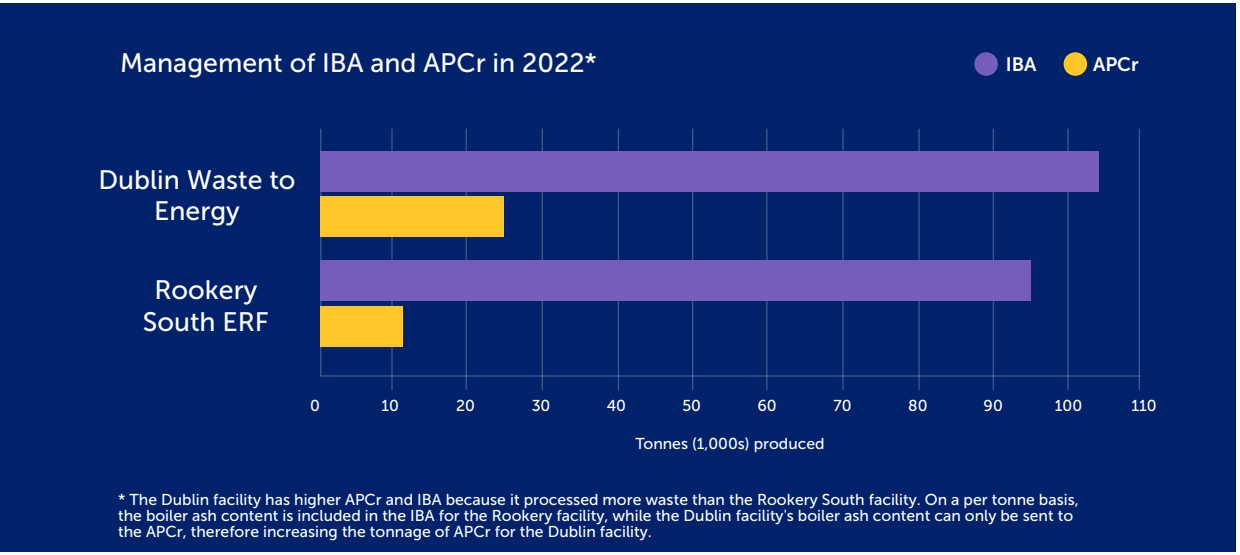
[10] https://www.esauk.org/application/files/2416/7112/3678/24158_Biodiversity-Best-Practice-Guide-2022_UPDATE.pdf

4.3 Recovery of residues

Combusting residual waste efficiently

The primary purpose of our facilities is to combust residual waste in the most efficient way possible.

The residues from this treatment process include incinerator bottom ash (IBA) and air pollution control residues (APCr). IBA is our largest source of residual material and composed of the ash formed after the combustion of residual waste. It also contains modest amounts of metals that can be recycled. APCr is produced from cleaning the flue gases following the combustion process.



* The Dublin facility has higher APCr and IBA because it processed more waste than the Rookery South facility. On a per tonne basis, the boiler ash content is included in the IBA for the Rookery facility, while the Dublin facility's boiler ash content can only be sent to the APCr, therefore increasing the tonnage of APCr for the Dublin facility.

Recovering more than energy

Our goal is to ensure 100% of our IBA and APCr is recovered by 2030 and that we are not reliant on landfill for the management of these residues.

In working towards this target, we will contribute to wider UK and European resource efficiency needs, by providing valuable metals and minerals for recycling. This translates to the replacement of virgin raw materials while eliminating the GHG emissions associated with extraction.

IBA from our Rookery South ERF facility is already fully recycled by a specialist company in the UK, where residual aggregate is blended for use as a construction material. Building on this progress, we are investing in our own IBA processing facility in Wellingborough, Northamptonshire, to provide a stable and reliable treatment solution. Our APCr is currently rendered non hazardous prior to being landfilled. We have also partnered with O.C.O Technology to explore their Accelerated Carbonation Technology, to recycle APCr waste into an artificial aggregate known as Manufactured LimeStone (M-LS), which can be utilised to manufacture concrete blocks.

At our Dublin Waste to Energy facility in Ireland, we operate in a more challenging regulatory environment. Currently, there are no IBA or APCr processing facilities in Ireland and consequently residue from Dublin is treated in The Netherlands (IBA) and Norway (APCr). We are working with the Irish Government and partners to ensure a more sustainable, on-island solution for the recovery of both IBA and APCr.

Wellingborough IBA Processing Facility
IBA from our Rookery facility will be processed into aggregate for the construction industry. Building is underway at the site, which will enhance Encyclis's contribution to the circular economy.

Centered around an aggregate processing plant, the Wellingborough site will enable production of Day Aggregates' EcoBlend range of products. The plant will also include a facility for producing hydraulically bound mixtures (HBM), a recycled aggregate used in the sub-base and base layers of road surfaces. Any metals recovered from the IBA will be separated for recycling.

4.4 Resource efficient operations

Efficient water use

Water is a valuable and critical resource.

Climate change is exacerbating drought in the UK and Ireland, putting pressure on already low water reserves. Our EfW facilities use water for flue-gas treatment, cooling and boiler operations. Efficient water use has therefore been a priority for Encyclis and we seek to reduce our consumption where possible. Some of our processes use water in a closed system, while others dispose of the water after use. The latter processes require higher levels of monitoring, as they are more exposed to shortages. Up-to-date water consumption data for our sites are currently in the process of being validated and will be included in subsequent sustainability reports.

Case Study: Dublin Water Usage
At our Dublin Waste to Energy facility, grey water (wastewater from non-toilet plumbing systems) from a nearby wastewater treatment plant is collected and used, along with rainwater, to ensure that the plant is as water efficient as possible.

Energy efficiency in business activities

Our facilities consume electricity and heat to generate EfW. It is key that energy efficiency is maximised to mitigate environmental impacts as well as reduce costs.

Both of our sites meet the efficiency standards required to be classed as recovery operations (R1 status), rather than waste disposal facilities (currently many other existing UK EfW sites are still classified as disposal).

Alongside tackling our direct carbon emissions by improving our own energy efficiency, we can also help the local community reduce its carbon emissions, through the provision of heat to service nearby homes and businesses. In the UK and Ireland, few EfW facilities have historically been integrated with local heat networks. However, the Renewable Heat Incentive (RHI) and Heat Frameworks Initiative (HFI) are likely to drive increased efforts to integrate the two.

We are already working with local authorities and partner companies to integrate our EfW plants with local heat networks. Our Dublin Waste to Energy facility has been equipped with heat exchangers and is ready for integration with district heating.

Case Study: District Heating at Rookery South ERF

We have partnered with Vital Energi, a specialist company that installs and operates large-scale, centralised, clean energy centres for the commercial and public sector, to take heat from our Rookery South facility and use it to provide hot water at temperatures required by domestic customers. This hot water will then be distributed through a below-ground, thermally efficient district heating network to local homes and businesses.

5.0 Social

5.1 Health & safety in the workplace

Encyclis has an Occupational Health & Safety Policy Statement in which we commit to providing a safe and healthy workplace for our employees and contractors to prevent harm and ill-health. Our aim is to continually develop and improve our occupational health and safety performance by providing a clear objectives framework, as well as fostering a culture of Safety-First approaches. Our Health & Safety Management System establishes robust procedures and communicates these with our workforce.

We want to ensure our facilities operate to the highest standards and that strong safety principles are cultivated in our workplaces to minimise injuries and accidents. The EfW industry has the potential to be a high-risk environment, thus proactive and robust systems are essential. In keeping with our Safety First values, we are developing a positive health and safety culture and continue to progress individual and organisational competence. In addition, we provide industry recognised occupational healthcare, in turn improving employee well-being, morale and subsequent staff retention.

Encyclis also recognises the importance of continual improvement. We regularly review leading and lagging indicators to evaluate and identify areas for improvement in health and safety performance. We also make meeting our health and safety standards a condition for our board members to receive pay bonuses. We have been collecting health and safety data against our internal metrics and will strengthen this data collection process for our 2023 report.

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Encyclis's 'Safety First' Campaign will be launched in Summer 2023.

At Encyclis, we want everyone to:

- Arrive at work safe
- Work safe
- Go home safe

'Safety First' means the safety of all our employees and contractors is our number one priority.

We aim to create a 'Zero Harm' working environment where everyone arrives at work safely, works safely and goes home safely to their families and loved ones at the end of each shift or working day.

In synergy with the 'Safety First' campaign, we are introducing 6 Life Critical Safety Rules that are based on the following risk profiles relevant to our activities:

- People & Plant Interface
- Energy Systems
- Dropped Objects
- Working at Height
- Lifting
- Confined Spaces

All Life Critical Safety Rules have bespoke icons with messages relating to the life critical safety rules that will be rolled out through the 'Safety First' campaign via our website, Encyclis Grid, posters, PPE and employee communication and consultation forums.

In addition to the 6 Life Critical Safety Rules, we have a 'Safety Stop' rule whereby we empower all employees and contractors to initiate a 'safety stop' at work. This should be implemented if a perceived unsafe condition, act, error, omission, or lack of understanding could result in an undesirable safety incident.

We consider this to be a positive action: it could be the difference between someone going home to their family or loved ones at the end of the day – or not.

5.2 Career development & training

Skilled, motivated employees are essential to the sustainability and reliability of our services. We provide high-quality employment and champion local jobs whenever possible. We rely on highly skilled employees to perform technical tasks within our facilities and head office and acknowledge the importance of training our employees to provide them with skills that will advance their careers and help drive the green transition.

Apprenticeship Scheme

In Autumn 2022, we introduced apprenticeship schemes in the UK and Ireland, with the aim of increasing access to training for young people from local communities. We currently have two Mechanical and Electrical Maintenance apprentices and are in the process of recruiting a third trainee. We hope to continue to expand this scheme as the business grows.

Local Employment Plans at Dublin and Rookery South

We are proud to support the local economy at both of our current facilities through direct employment opportunities and supplier relationships. This includes putting in place a Local Employment Plan to actively promote local employment and local supplies of materials and services.

Our Dublin Waste to Energy facility provides 60 full-time roles at the facility and 35 to 45 full-time contractor and service support roles. Our Rookery South ERF facility directly employs more than 50 people, over 90% of whom live locally.

We are focused on creating new jobs within the sector. In the coming years, as we seek to develop CCS, we expect to create new permanent jobs within Encyclis, as well as helping to catalyse sustainable progress beyond our own business, for example by developing district heating projects with local authorities.

5.3 Living wage

Encyclis recognises the importance of providing employees with a real living wage. For the period 2021/22, the minimum annual salary at Encyclis was £23,000 per annum (which is reflective of a living wage[11]) and the average salary was £52,000 per annum, before bonuses and benefits.

Financial Awareness Training

Beyond pay, we also care about helping our employees to manage their money more effectively. For example, in 2022 we worked with The Money Charity to provide financial awareness training for employees on a wide range of topics, from pension planning to interest rates and managing debt.

5.4 Diversity & inclusion

We believe a diverse and inclusive workforce results in better performance for our organisation – including attracting candidates, creating a catalyst for innovation and creativity, hearing different perspectives, and improving employee engagement.

In the utilities and energy sectors, women, disabled people, and ethnic minorities are traditionally under-represented.[12] We are working to ensure our workforce is more representative of society.

As a new company, we have focused on recruiting diverse management and operational teams. In 2022, 17.9% of our workforce identified as female, and of the 48% of staff who disclosed their ethnicity, 25% identified as ethnic minorities.

Over the next 12 months, we are committed to developing our teams and ensuring all staff have equal access to training, development and promotion.

Of our workforce identified as female

Of our workforce identified as ethnic minorities

[12] Doherty,, J. (2019) Waste businesses sign up to diversity commitment. Available at: link [Accessed 11/05/23]

5.5 Community relations and education

We are an engaged neighbour and make efforts to maintain strong relationships with our local communities. During the planning phase, our facilities are designed to operate for the benefit of both our staff and the public through constructive and transparent dialogue. Once our facilities are operational, we regularly engage with local communities, support the work of local organisations and provide educational resources for the local community to share as part of being a 'good neighbour'.

Community Trust Funds

We support community causes through our Community Trust Funds which provide local not-for-profit organisations with grant funding for important projects. To fulfil the planning requirements of our facility in Rookery South, our Rookery South Fund donated £200,000 to local projects, including funding for improvements to play equipment, community facilities, schools and support groups in 2022. Our Dublin Waste to Energy Community Gain Fund has allocated over €10 million for over 120 community projects to date, with €623,000 confirmed in 2022.

Visitor Centres

Our interactive visitor centres aim to help the wider public understand how our facilities work in terms of sustainable waste management, energy recovery and the circular economy.

Number of 2022 Tour Attendees[13]

Location	Primary School	Secondary School	Higher Education	Businesses	Leisure Groups	Total
Dublin	91	80	108	137	273	689
Rookery South	0	0	0	12	7	19

Rookery South Visitor Centre

The learning hub within our Rookery South Visitor Centre is designed as teacher-led educational space and is equipped with creative educational tools, including fully interactive screens, which enable lessons to be easily sent back to schools for use in the classroom. Our interactive exhibition offers visitors the opportunity to engage with all our onsite processes, from the import of waste at the weighbridge, to the export of electricity. In addition, we also offer plant tours to school groups, which enable students to appreciate how we recover energy and resources from the waste we receive and the scale of the facilities.

Community Liaison Panel

The Rookery South Community Liaison Panel plays a key role in ensuring effective engagement between our facility and the local community. Originally established on 22nd September 2009, the Community Liaison Panel promotes helpful dialogue with our neighbours to build open and transparent relationships. Meetings are held on a quarterly basis, and Encyclis and our partner Veolia strive to ensure that specialists are in attendance to answer questions where necessary.

[13] Dublin numbers are from mid-September to December 2022. Rookery South numbers are for the month of December.

6.0 Moving Forward

This sustainability review has laid out the progress made in our journey so far, quantifying the current impact of our operations and identifying priority work areas for the future.

The next step is to build on this through the publication of our first full sustainability report in 2024. This will include additional data disclosures to account for our performance in striving to be best in class in our sector.

A key priority moving forward is to build on this work through the publication and delivery of our decarbonisation strategy for achieving net zero GHG emissions across the Encyclis portfolio. We intend to publish this strategy during 2024.

We recognise the need to take immediate action where it's our responsibility to do so, including continuing to promote our strong health & safety culture through our Safety First campaign, replacing diesel with low-carbon start-up fuels to promote decarbonisation, and providing sustainable power during outages and maintenance using solar panels.

In the long-term, tackling our emissions will be of greatest importance. As noted in this review, we are an emerging industry leader in CCS. CCS is a key technology for decarbonising the EfW sector and working closely with the UK government, we aim to install CCS at our new Protos facility in Cheshire with a construction start date of 2025.

Following the successful deployment of CCS at Protos ERF, we aim to decarbonise all our operations and plan to install CCS at our Rookery South ERF and Dublin Waste to Energy facilities. We will present a roadmap (including timeframes) towards net zero and detail our progress in future reports. We recognise that matched public investment alongside a supportive regulatory framework will be needed to meet this. We will thus continue to work collaboratively with government on this goal, setting an example as a delivery partner for the UK and supporting Ireland on its industrial decarbonisation pathway.

Implementing measures to improve sustainability performance can be commercially challenging, requiring both investment and effort. Encyclis has made a conscious decision to pursue sustainability because it is the right course of action for the communities in which we operate and the environment in which we all live. It is also, of course, good business practice. Ultimately, growing as an environmentally and socially sustainable business, with an equitable governance structure, is the best course of action for both Encyclis and its stakeholders.

By prioritising sustainability, Encyclis will be well positioned to play its part in tackling some of the world's future challenges and to continue to sustainably grow its business.

7.0

Encyclis: Achievements and Commitments in 2022

7.1 Governance

Accomplishments and actions to date

Putting robust policies and procedures in place as part of establishing the business.

- We have a dedicated Sustainability Council of nine departmental subject matter experts who meet every eight weeks to develop robust sustainability governance processes throughout the business.
- The Executive Leadership Team and the Council engage staff across the business to support and contribute to our sustainability goals, especially Health & Safety, through our internal communication channels, including Town Halls, internal intranet and 'Toolbox' talks.
- Our Rookery South ERF facility operates to extremely high environmental standards as our flagship UK site: following a gap analysis of policies and procedures in December 2022, we are aiming to achieve ISO 9001, 14001 and 45001 standards certifications in 2023, acting as the example for other sites to follow.

Our future commitments

Being an employer of choice and continuing to promote a strong Health & Safety culture

- We are committed to developing our teams and ensuring all staff have equal access to training, development, and promotion opportunities.
- Our 'Safety First' Campaign will be launched in Summer 2023 to promote Health & Safety as the leading priority across the business.
- Health and safety KPIs are linked to appraisals and salary reviews.
- We will pursue membership of the UN Global Compact to emphasise our role as a responsible business.

Working with national and regional government(s) to develop policy that improves sustainability

- We will continue to advocate for policy changes and changes in legislation to allow more to be done to support the waste hierarchy and recycling initiatives.
- We will work with EU administrations and the Confederation of European Waste to Energy Plants (CEWEP) to advocate for end-of- waste classification for IBA and APCr.
- We will also promote district heating networks across our developing portfolio, including the potential use of 'Heat Zones' as designated by the UK government.

Ensuring our future facilities deliver the same high standards as our current ones

Newhurst ERF in Loughborough, Leicestershire will become our next operational facility in 2023. Operational sustainability reporting will begin from then, alongside work to prepare for securing ISO 9001, 14001 and 45001 standards certifications.

7.2 Environment

Achievements to date

Our facilities go beyond the expected standards

- Our Board-authorised Environmental Policy Statement forms the bedrock of our work, emphasising our policy to avoid environmental harm in the provision of our services.
- Our facilities fully comply with environmental permits and are subject to regular inspections from regulatory bodies who apply stringent guidelines during all phases of operation.
- Our emissions analysers comply with Quality Assurance Levels 1, 2 and 3 (under BS EN 14181), whilst the Continuous Emissions Monitoring Systems at both Dublin Wast to Energy and Rookery South ERF facilities monitor all emissions to air 24/7. In 2022, our daily average emissions were well below the emissions limit values allowed within the Environmental Permit requirements.

Planning for the future through market-leading technology

- Incinerator Bottom Ash (IBA) from our Rookery South ERF facility is fully recycled by a specialist company in the UK for end use in the aggregates industry, diverting materials from landfill.
- Crucially, we are now working with the UK Government as one of two EfW partners to help develop carbon capture and storage (CCS) technology. Our Protos ERF facility in Cheshire will be the first of our portfolio to offer this technology – an essential step for the sector to accelerate its progress towards achieving net zero GHG emissions in the UK and Ireland by 2040.

Our ambition

Our future actions will serve as an industry exemplar in highlighting the waste management sector's commitment to achieving net zero greenhouse gas (GHG) emissions in the UK and Ireland by 2040.

This will start with our climate transition plan in 2024, with our key objectives including:

- Ensuring 100% of our IBA and APCr is recovered by 2030. This includes investing in our own IBA processing facility in Wellingborough, Northamptonshire, to provide a stable and reliable treatment solution for IBA;
- Replacing diesel with lower-carbon start-up fuels in our operations;
- Generating our own zero-emission power where possible via the installation of solar panels at key operational sites;
- Providing on-site EV charging and cycle-to-work schemes for staff;
- Maximising our investment in district heating infrastructure where feasible, to support wider community and industrial decarbonisation; and
- Supporting up-stream recycling of plastics and continuously improving our recovery and recycling rates.

In the shorter-term, we will also continue to improve how we treat the residues of our operations. This includes:

- Contractual partnering with O.C.O Technology across the portfolio to use technology to recycle APCr waste into Manufactured Limestone at their process facilities; and
- Working with the Irish Government to define policy and waste management partners to secure a more sustainable, on-island solution for the recovery of both IBA and APCr.

7.3 Social

Accomplishments and actions to date

A strong Health & Safety culture is already a core element of our business

- Our Occupational Health & Safety Policy Statement commits to providing a safe and healthy workplace for our employees and contractors to prevent harm and ill health.
- Our Health & Safety Management System establishes robust procedures and communicates these with our workforce.
- We implement a 'Zero Harm' working environment and have a 'Safety Stop' rule to initiate a 'safety stop' at all operational facilities.

We're developing community programmes and a range of skills and training opportunities at our key sites

- We have built a visitor centre at our Rookery South ERF facility, which is designed as a teacher-led educational space equipped with creative educational tools to support learning about sustainable waste management in the circular economy and decarbonisation.
- Dublin Waste to Energy facility had over 680 attendees on plant tours in the last quarter of 2022, engaging across the region and throughout the community.
- We have created a successful apprenticeship scheme, starting with two full-time apprentices already working in the business and a third trainee about to be recruited.
- We have Local Employment Plans and Community Trust Funds at both our Dublin and Rookery South sites, meeting quarterly with our Community Liaison Group to update and respond to the queries of local people.

Our future targets

- Our community engagement programmes at Rookery South and Dublin will incorporate our work on CCS to explain its role as an essential part of the industry reaching net zero and creating the green jobs of the future in this sector.
- Newhurst ERF, near Loughborough in Leicestershire, is the next facility to become operational and the operations team will engage with the local community through a dedicated Community Liaison Group.
- The apprenticeship scheme will be supported across the entire operational portfolio as our new facilities come online, with Newhurst being the next for consideration.

08

Glossary of Terms

APCr – Air Pollution Control Residue:
Typically, a mixture of ash, carbon, and lime. It is a hazardous waste.

BREF Limits – Best Available Technique Reference Document:
A publication resulting from a series of information exchanges between various stakeholders, including regulators, industry and environmental non-governmental organisations. These contain guidance on the "Best Available Techniques" for installations.

BAT – Best Available Technique:
An available technique (technology or process) which is the best for preventing or minimising emissions and impacts on the environment. BATs are used by legislators or regulators to set emission limits for compliance with environmental permits.

C&I – Commercial and Industrial:
Solid waste derived from commercial and industrial sources.

CCS – Carbon Capture and Storage:
Refers to a suite of technologies that can play a diverse role in meeting global energy and climate goals.

CEMS – Continuous Emissions Monitoring Systems:
An integrated system used to measure and report emissions continuously in order to comply with Environmental Permits

CEWEP – Confederation of European Waste to Energy Plants

CIWM – Chartered Institute of Waste Management

CV – Calorific Value:
A measurement of the amount of energy contained in waste.

DMA – Double Materiality Assessment:
An assessment of the sustainability matters that are financially material in influencing business value and material to the market, environment, and people.

EfW - Energy from Waste:
The process of generating energy in the form of electricity and/ or heat from the primary treatment of waste, or the processing of waste into a fuel source.

EN 14181:
Specifies procedures for establishing quality assurance levels QAL 2, QAL 3 and AST for an AMS installed on industrial plants for the determination of the flue gas components and other flue gas parameters.

ESG – Environmental, Social and Governance:
Used to screen investments based on cooperate policies and to encourage companies to act responsibly.

ESA – Environmental Services Association

FEAD – European Waste Management Association

GHG – Greenhouse Gas:
Greenhouse gases constitute a group of gases contributing to global warming and climate change.

Greenwashing:
A term used to describe a false, misleading, or untrue action or set of claims made by an organisation about the positive impact that a company, product, or service has on the environment.

HBM – Hydraulically Bound Mixtures:
A mixture of aggregate, water, and hydraulic binder, most commonly used in pavement sub-base layers where cement treated bases or cement bound materials have traditionally been used.

Highly Efficient Recovery R1 Facilities:
Denotes that an EfW facility is considered an Energy Recovery Facility, rather than a waste disposal facility.

IBA – Incinerator Bottom Ash:
Material that is discharged from the moving grate of municipal solid waste incinerators.

IBEC – Irish Business Employers Confederation

IMS – Integrated Management System:
Combines all aspects of an organisation's systems, processes and standards into one smart system.

ISO standards:
Internationally recognised standards that set guidelines to result in a safer, more consistent end result that benefits both the organisation and end user/ customer.

14001: Sets out the requirements for an environmental management system. It helps organisations improve their environmental performance through efficient use of resources and reduction of waste, gaining a competitive advantage and the trust of stakeholders.

45001: Specific requirements of an occupational health and safety management system. It provides guidance for its use, enabling organisations to provide safe and healthy workplaces by preventing work-related injury and ill health and proactively improving occupational health and safety.

9001: Specifies requirements for a quality management system. Used to demonstrate the ability to consistently provide products and services that meet customer and regulatory requirements.

IWMA – Irish Waste Management Association

KPIs – Key Performance Indicators:
A quantifiable measure of performance over time for a specific objective.

Net Zero:
A state in which the greenhouse gases going into the atmosphere are balanced by removal out of the atmosphere

NGO – Non-Governmental Organisations:
Typically, a voluntary group or institution with a social mission which operates independently from the government.

RHI - Renewable Heat Incentive:
A government financial incentive to promote the use of renewable heat, which can help reduce carbon emissions and meet the UK's renewable energy targets.

RWS – Resources and Waste Strategy:
Sets out how we will preserve material resources by minimising waste, promoting resource efficiency and moving towards a circular economy in England.

SDG – Sustainable Development Goals:
Goals adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet and ensure that by 2023 all people enjoy peace and prosperity.

UK ETS – UK Emissions Trading Scheme:
A cap and trade system which caps the total level of GHG emissions, creating a carbon market with a carbon price signal to incentivise decarbonisation.

Encyclis Limited
Lynton House,
Tavistock Square,
London, WC1H 9LT
United Kingdom

encyclis.com