SUEZ Isle of Man Annual Public Report 2024

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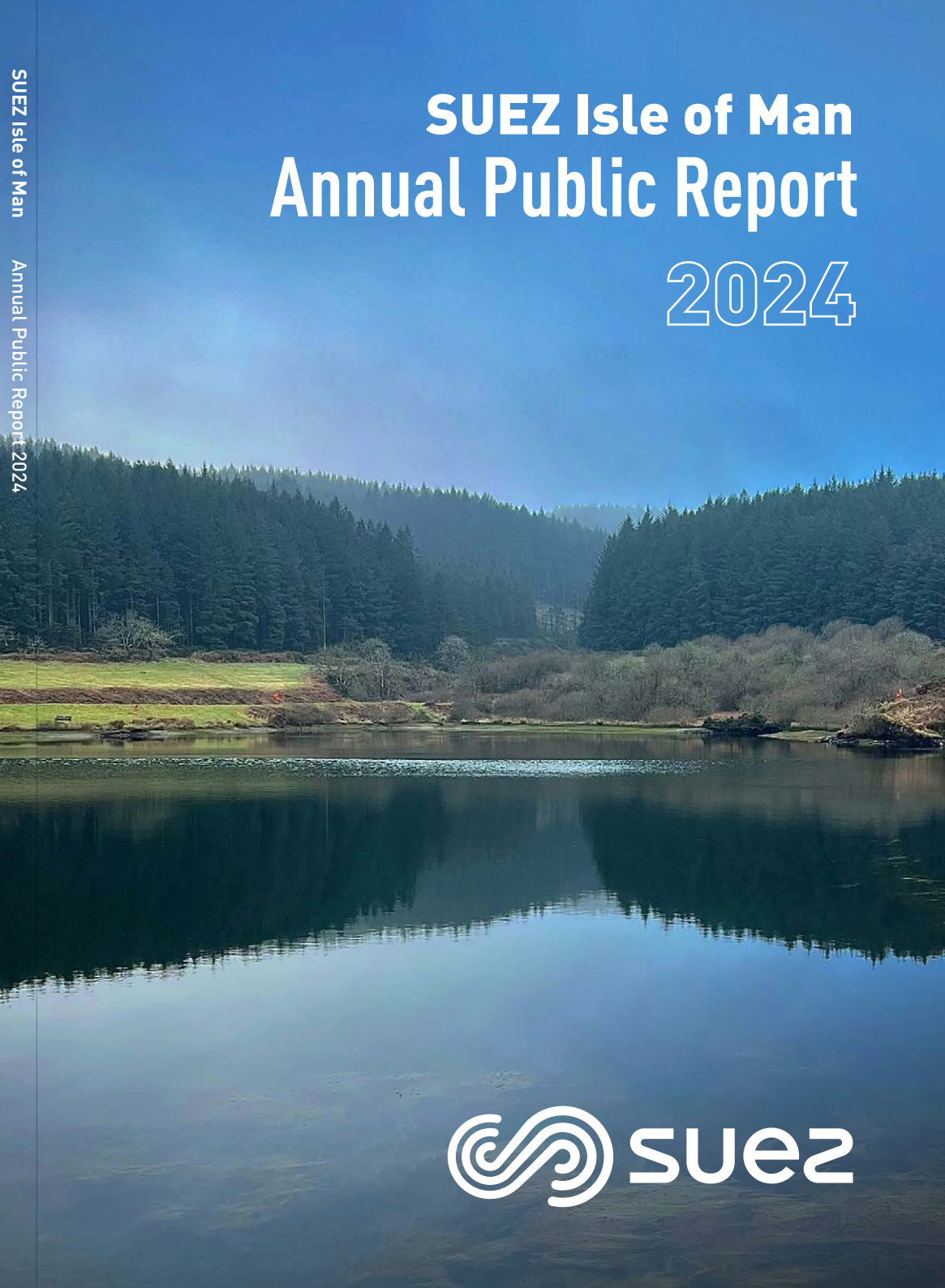
2024



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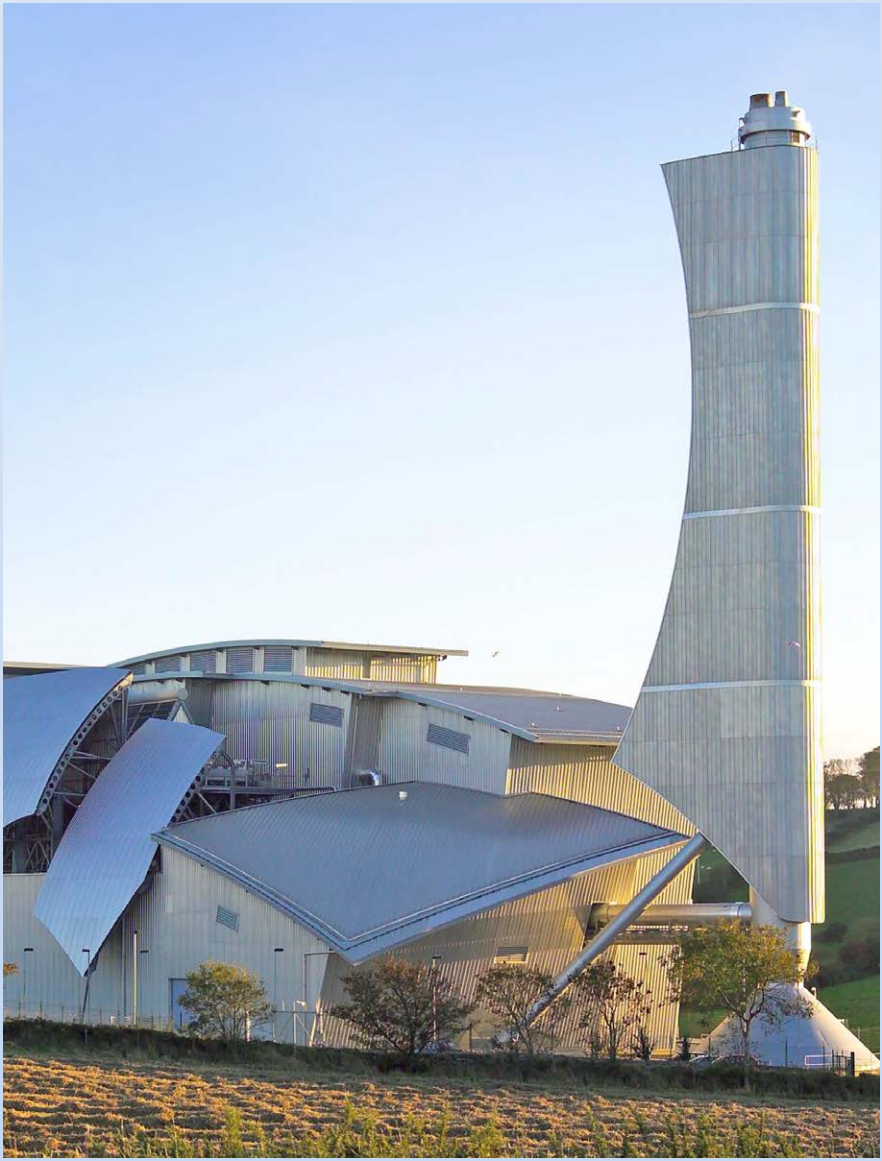

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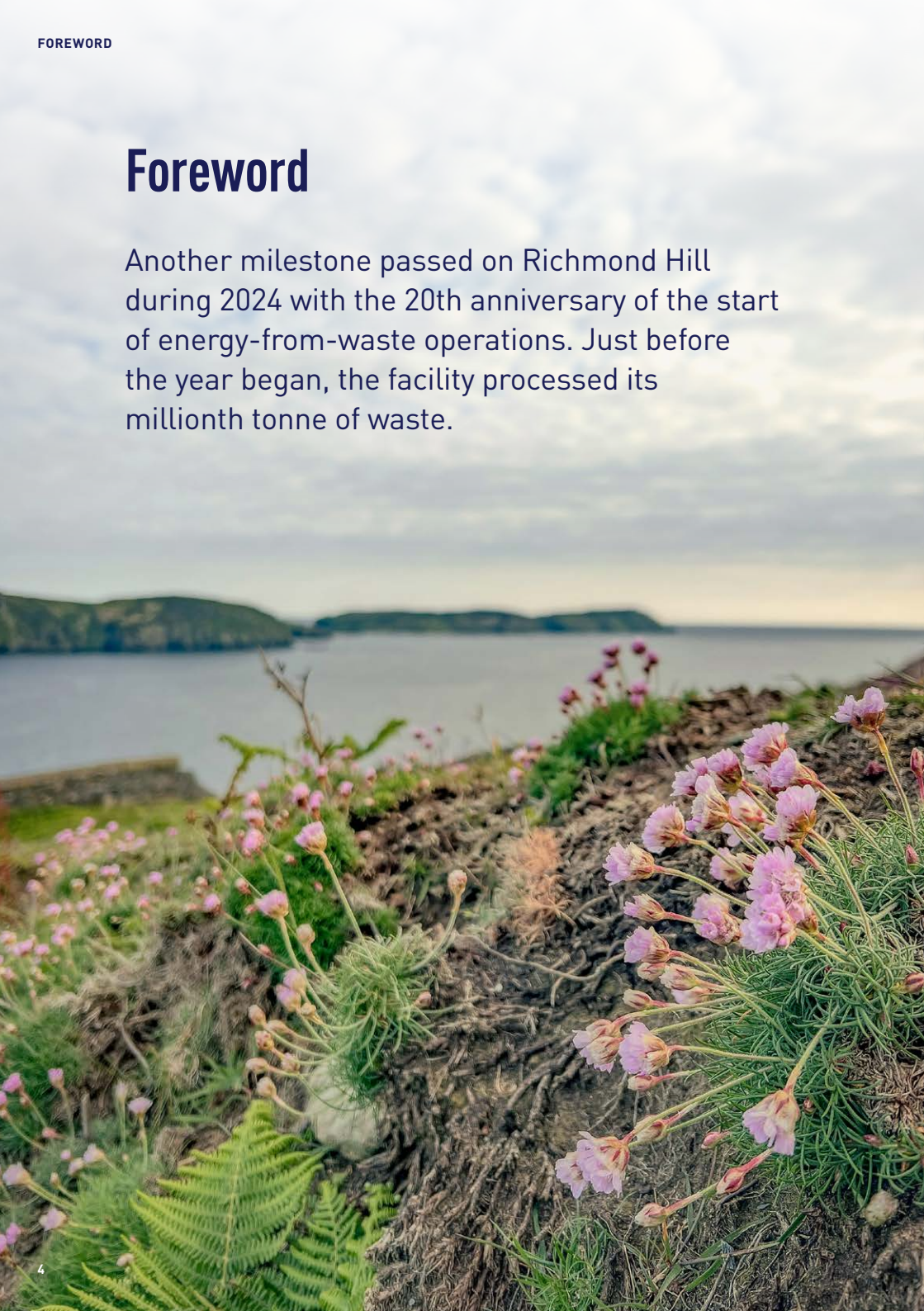
Foreword

Another milestone passed on Richmond Hill during 2024 with the 20th anniversary of the start of energy-from-waste operations. Just before the year began, the facility processed its millionth tonne of waste.



Notable though these events are, the over-arching achievement is the high performance that has been sustained over these past two decades. It continued through 2024. Our team once again provided a safe, environmentally-responsible and highly-efficient service to the island, while fulfilling the SUEZ commitment to the triple bottom line of people, planet and profit.

Just under 50,000 tonnes of waste were processed during the year to generate more than 25,500 megawatt hours of power for homes and businesses. The facility continued to manage some of the island's most challenging waste streams – such as clinical and bio-waste, waste oil and tyres – without compromising its tight emissions control.

Meanwhile, our maintenance engineers and specialist contractors accomplished a major programme of works to service and replace equipment and componentry. The facility's preventative maintenance regime underpins its high operational efficiency. Challenging annual targets for asset health checks and the effectiveness of critical plant and equipment were achieved once again. Other efficiencies were made in the use of resources, including water and chemicals.

Enhancements made around the site to benefit nature and wildlife continue to grow in number and variety, and more are planned as part of our Sustainability Action Plan.

Under SUEZ's A Day A Year To Volunteer scheme, our people teamed up to help with the upkeep of the garden at the island's hospice, while giving back to the community in various other ways. In addition to hosting educational visits by school children and other groups, employees raised funds for Macmillan Cancer Support, the British Heart Foundation and other good causes.

The SUEZ Isle of Man team is recognised across the wider group for its all-round excellence. Several colleagues won company awards during the year for outstanding contributions in diverse areas such as digitalisation and sustainability. The crowning achievement was the award towards the end of the year of the SUEZ Energy Cup for 2024. Based on a comprehensive set of parameters – from health and safety to environmental management, and operational efficiency to community contribution – the Richmond Hill team were judged the outstanding performers in our energy division.

Our people are to be congratulated on the hard work and commitment that earned this accolade from their peers. Seven of our colleagues have served SUEZ Isle of Man for all of those 20 years. We all remain committed to sustaining this exemplary track record into a third successful decade.

John Scanlon
Chief Executive Officer
SUEZ recycling and recovery UK

Jon Garrad
Plant Manager
SUEZ Isle of Man

Introduction

Welcome to our annual report on the Isle of Man's energy-from-waste facility.

This annual report provides an overview of our operations on Richmond Hill and all the related activities of SUEZ Isle of Man over the calendar year of 2024.

The sections that follow detail the materials processed and energy recovered, the facility's environmental performance, and how our company fulfilled its wider corporate social responsibility. All supporting data is set out in the final section along with annual objectives, targets and outcomes.

This publication, and the emissions data posted on our website, reflect SUEZ commitments to the Department of Infrastructure and the community we serve to be open and accountable for our performance.

The information set out in this report has been reviewed and verified independently by inspection and certification specialists, The Sustainable Growth Company Ltd.

SUEZ recycling and recovery UK

SUEZ Isle of Man was formed for the specific purpose of developing and operating the island's energy-from-waste facility.

Our parent – SUEZ recycling and recovery UK – began operations in 1988 and went on to become a leading national provider of waste management services to local authorities and businesses. As environmental legislation and technological advances fundamentally changed the industry over several decades, SUEZ has been at the forefront of this transformation.

Focusing on the value in waste materials, the company initially generated electricity from landfill gas before developing a network of energy-from-waste facilities. Other technologies harnessed for energy include gasification, anaerobic digestion for food waste, and the processing of waste wood. SUEZ also manufactures fuels for industry from household and commercial waste. Its composting facilities put green waste to good use and even road sweepings are processed as a substitute for aggregate in concrete blocks.

The recyclable materials collected from customers are sorted and batched for reprocessors, while SUEZ also diverts household items that can be refurbished or repaired for re-sale at household waste recycling centres.

These diverse activities – carried out by a workforce of more than 6,000 people – are part of an innovative strategy championing the circular economy and more sustainable management of resources. Such solutions also help customers reduce their carbon footprints, while minimising other environmental impacts including pollution.

Our values

Respect

We care, we can be our authentic selves, we're compassionate, we're ethical and we're honest. We act to keep everyone safe and well.

Team spirit

Together, we work, we collaborate, we problem solve, we support, we encourage and we celebrate.

Commitment to the environment

We preserve, restore and protect our planet. We act to reduce, reuse, recycle and recover resources.

Customer focus

We're dedicated, focused and creative. We innovate, we advocate and we collaborate with our customers for the environment.

The SUEZ group

SUEZ Isle of Man is also able to draw on the world-class expertise of the global SUEZ Group as well as its UK parent.

The group's 40,000+ employees manage water and waste in over 40 countries. More than 10,000 water and waste treatment facilities built by SUEZ serve the needs of a billion people. An innovator over its 160-year history, the group is developing circular solutions for water and waste at 10 research centres in Europe and Asia.

Its sustainable development strategy sets out a framework for financing improvements in SUEZ facilities and capabilities worldwide. Over the period 2023-2027, SUEZ committed to:

- Increasing the budget dedicated to research, development and innovation by 50% to support more than 200 projects.
- Doubling investment in projects that boost the energy value of waste and the effectiveness of recycling innovation in waste.
- A fourfold increase in the carbon reduction budget.

UK operations and infrastructure

Our facility on Richmond Hill is one of 11 within a diverse network of facilities operated by SUEZ recycling and recovery UK.

Its workforce of more than 6,000 people (including the Isle of Man team) recovered significant value from waste resources in 2023:

- More than eight million tonnes were sent for treatment – 83% for re-use, recycling or energy recovery.
- Over 1.67 million megawatt hours of electricity was generated – enough to power 515,000 homes.
- Half a million tonnes of discarded household items were salvaged for re-use.
- The equivalent of almost two billion tonnes of carbon dioxide were avoided.
- Investment in infrastructure, research and development exceeded £25 million.
- More than £406 million was spent with small, medium-sized and social enterprises.
- £5.2 million was donated or invested in community projects.
- The total social value created was £2.7 billion.

12	materials recycling facilities
11	energy-from-waste facilities
2	solid recovered fuel facilities
18	alternative fuel facilities
6	wood processing facilities
5	composting facilities
1	anaerobic digestion facility
1	battery recycling facility
3	street sweepings recycling facilities
112	household waste recycling centres
85	transfer stations
30	re-use shops

Developments in 2024

Recognising sustainability in its widest sense, SUEZ recycling and recovery UK measures its impacts against the triple bottom line, to balance the interests of people, planet and profit.

Efforts to benefit the triple bottom line were reflected in various other developments during the year:

People

SUEZ recycling and recovery UK was named in the **top 50 employers of veterans**[1] in the UK 2024. The company, which has a network forum to support employees who are ex-forces, and their families, placed 31st in the list. Four out of our 36 employees on the island are veterans: Neil Gibson, Jonathon Smith, Aaron Crane and Robert Jepson.

Our people's hard work and innovation in renewable energy was recognised by the industry. Plant engineers Eleanor Baimbridge and Karishma Gajjar – who work with our technical team and support our facility – were shortlisted in the **British Renewable Energy Awards**[2] in the category for new professionals.

Meanwhile, our people helped raise £170,000 in the UK awnd Isle of Man for our charity partners, while also volunteering in the local community.

[1] www.suez.co.uk/en-gb/news/press-releases/240723-suez-recycling-and-recovery-uk-named-as-one-of-the-top-50-employers-of-veterans-in-the-uk-2024

[2] www.suez.co.uk/en-gb/news/press-releases/240614-british-renewable-energy-awards-2024

Planet

Our company champions the circular economy and lobbies the UK government and industry to speed the transition away from the linear economic model of 'take, make and waste'.

In November, we published a report highlighting the need to close a large **gap in green skills**[3] as part of the UK's industrial strategy. The report followed the publication of **an open letter**[4] to the new administration in September. Prepared with local authority partners, this outlined the SUEZ vision for a zero-waste economy and urged ministers to accelerate waste policy reforms to achieve this aim. Such changes could be implemented on the island in the future.

SUEZ continues to promote the re-use of pre-loved household items. **A research project**[5] with Keep Britain Tidy explained the motivations of customers buying second-hand items in the re-use shops we manage for UK councils. We see our Renew hub in Manchester – where items are refurbished for re-sale – as a model that could be replicated at different scales by other local authorities across the UK, and potentially, the island.

[3] www.suez.co.uk/en-gb/news/press-releases/241125-government-must-act-now-to-close-green-skills-gap-warns-new-report

[4] www.suez.co.uk/en-gb/news/press-releases/240909-suez-outlines-key-asks-to-government-to-meet-the-uks-waste-targets

[5] www.suez.co.uk/en-gb/news/press-releases/241017-new-suez-research-shows-customers-buying-pre-loved-items-for-environmental-and-cost-saving-reasons

Profit

Our parent company secured contract extensions in Greater Manchester, Huddersfield and Teesside, reflecting its commitment to customer service and long-term partnerships.

SUEZ also made **further investment**[6] in the technology needed to capture carbon emissions from energy-from-waste. Consultants were commissioned for the preliminary engineering and design at our Teesside and Wilton facilities. Both are within reach of the East Coast Cluster pipeline, a government-backed project to store carbon from industry safely in an aquifer 145km off the coast in the North Sea.

The aim is to be in the forefront of this innovation and other technologies that could support the carbon net zero ambitions of the UK and Isle of Man.

Another example is anaerobic digestion. SUEZ is harnessing this technology to turn food waste into a renewable gas and biofertilizer. In January, we submitted **plans for a digestor**[7] on a disused site in Sutton, south London, to fuel up to 8,200 homes. Meanwhile, work got underway on another facility in Newcastle that will serve around 5,500 homes. A former in-vessel composting facility and buildings on the site were dismantled for re-assembly and re-use elsewhere. This experience could be valuable to the Isle of Man Government if it explores this technology in the future.

[6] www.suez.co.uk/en-gb/news/press-releases/240813-suez-moves-forward-in-carbon-capture-projects-with-the-support-of-technical-design-contractors

[7] www.suez.co.uk/en-gb/news/press-releases/240124-suez-submits-planning-application-to-build-anaerobic-digestion-facility

Purpose and principles

The purpose of SUEZ is simply stated and inspiring but challenging – to build a sustainable future that doesn't cost the earth.

To guide our progress, we follow a series of principles and commitments agreed in consultation with employees, customers and local communities. They cover eight areas where we believe our efforts can have the greatest impact.

Lead by example

Embed the environment and social value at the core of how we do business, to make an increased difference year-on-year.

Employees

Create a network of sustainability champions to empower and support employee action and develop our understanding of the key issues we face.

Carbon

Reduce the carbon emission intensity for each tonne of waste we handle for our customers and our own activities per employee year-on-year.

Re-use

Expand our network of re-use facilities to increase the volume of items reused, repaired or repurposed.

Supply chain

Improve the environmental, social and economic impact of our supply chain year-on-year.

Communities

Continue to be a good neighbour in the local community, taking part in local events and increasing what we spend with local suppliers.

Biodiversity

Take action at every SUEZ location to improve its natural environment.

Education

Share our knowledge and expertise to develop the resources sector, influence public behaviour and build a future workforce as part of the UK's creation of a sustainable future.

Waste management on the Isle of Man

The Government's strategy for managing waste is designed to promote sustainability and self-sufficiency within the constraints of a small island economy. A public consultation on the principles that will underlie a new Waste Strategy for 2025 – 2035 closed in autumn 2024. SUEZ responded to this consultation.

Energy-from-waste underpins the strategy, as the Richmond Hill facility has the capacity to process most of the island's residual waste that is not recycled, along with other waste streams that are difficult to manage. These include clinical wastes from hospitals, bio-pellets from the island's sewage treatment plant, used tyres, waste oils, and meat and bone meal left over from animal waste processing.

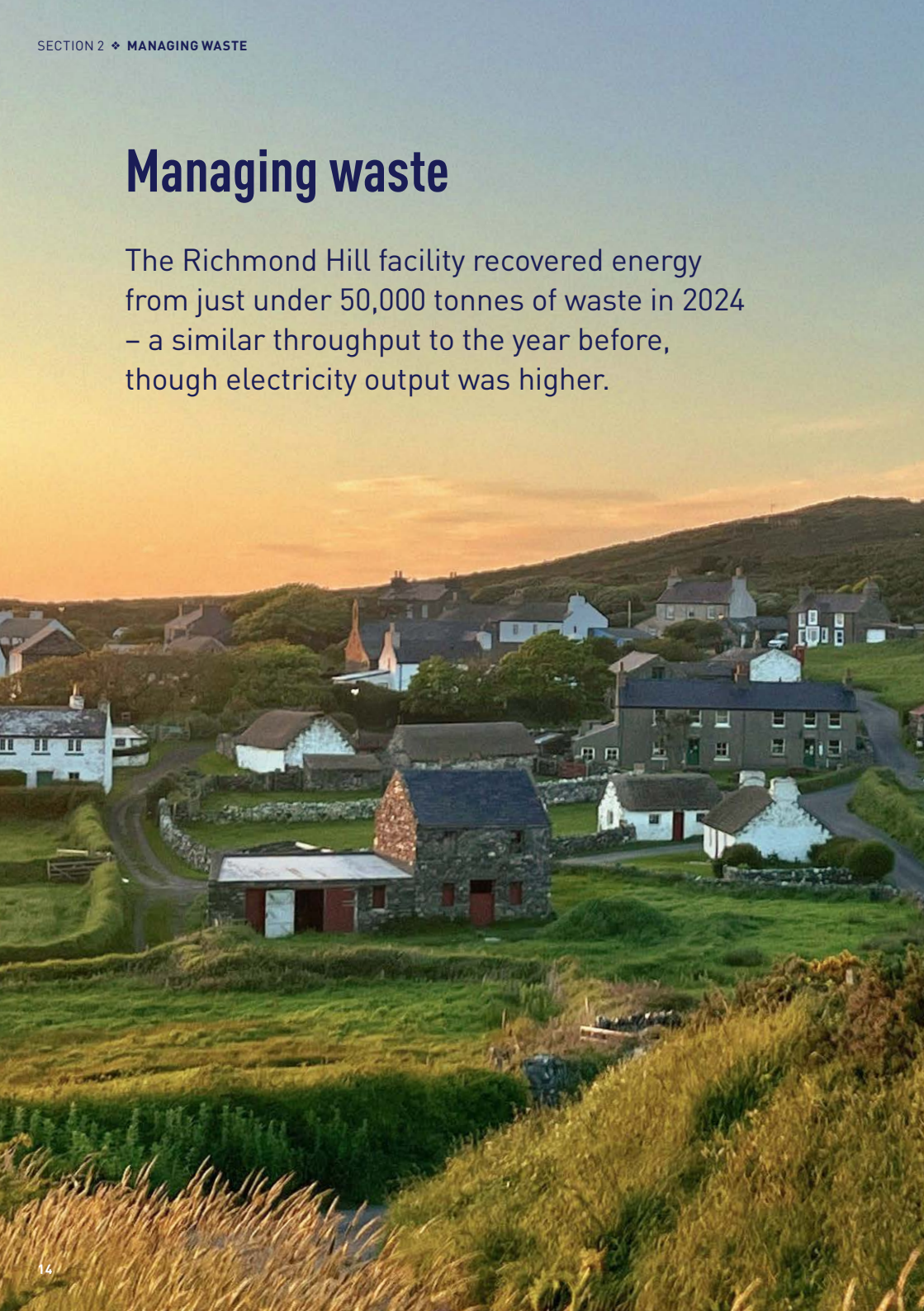
Such wide capabilities enhance the island's self-sufficiency, minimising reliance on limited landfill capacity. Treating these waste streams also bolsters energy security by generating electricity for the grid.

Specialist facilities needed to treat hazardous wastes from manufacturing and other activities are not currently available on the island. SUEZ Isle of Man manages a transfrontier shipment of waste service – licensed by the Department of Environment, Food and Agriculture and the UK Environment Agency – for these substances on behalf of our customers.

Our contract to operate the energy-from-waste facility runs until August 2029. During the year, the Isle of Man Government issued a request for information (RFI) to companies interested in tendering for a contract to manage operations until 2039. The facility will continue to support the island's strategy to that date and beyond – recovering value from the island's residual waste – provided its high standards of environmental performance and efficiency are sustained.

Managing waste

The Richmond Hill facility recovered energy from just under 50,000 tonnes of waste in 2024 – a similar throughput to the year before, though electricity output was higher.



In this chapter, we report on the mix of wastes treated, the facility's consumption of resources, and its outputs, as well as a range of operational issues. These include the major maintenance works undertaken during the year and performance against our efficiency targets.

First, we provide an overview of the energy-from-waste process and the technologies it employs.

The energy-from-waste process

Our facility is designed to process most of the island's waste safely and efficiently, protecting the environment while generating the maximum amount of electricity for export to the grid.

There are two processing lines. The primary treats municipal and commercial waste, but can recover energy effectively from various other materials. It has a total annual capacity of 60,000 tonnes. The facility's secondary line was designed for animal, clinical and waste oils. It can handle up to 5,000 tonnes, but now operates only for short periods as animal waste is processed at the Department of Infrastructure's Animal Waste Processing Plant. Used oils and most clinical wastes can also be treated safely by the primary line, enhancing the facility's overall flexibility and efficiency.

Waste is burned at temperatures of over 850°C in the furnace of the primary line, while on the secondary line, the minimum operating temperature rises to 1,000°C in its secondary chamber, where volatile gases are incinerated. These thresholds are set out in the EU Industrial Emissions Directive, which is designed to ensure the safe operation of processing facilities and destruction of waste.

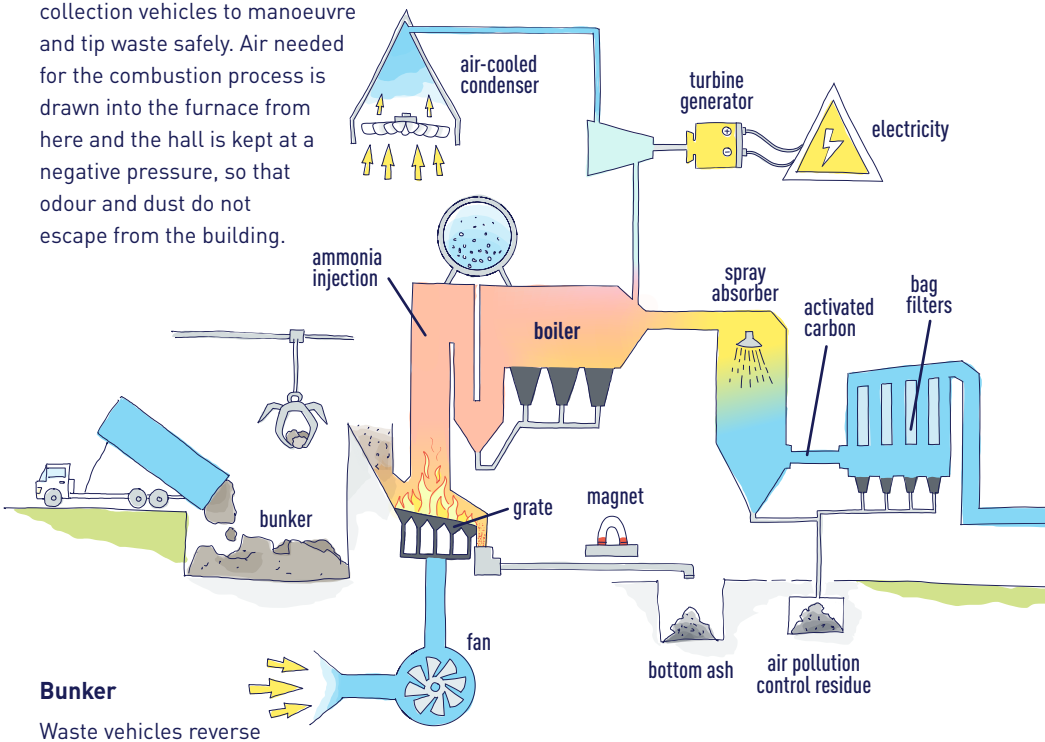
On arrival at Richmond Hill, waste vehicles use an automatic weighbridge set back from the site entrance, so that vehicles do not have to queue on the public highway. Waste type and amount, as well as customer details, are recorded and the driver is directed to the appropriate delivery bay.

Reception hall

A large reception hall allows refuse collection vehicles to manoeuvre and tip waste safely. Air needed for the combustion process is drawn into the furnace from here and the hall is kept at a negative pressure, so that odour and dust do not escape from the building.

Control room

The facility's control room centralises the operation of all equipment, including the grab crane used to mix and load waste into a hopper that feeds the furnace. All on-site functions are monitored both automatically and manually. Control systems verify in real time that equipment is functioning properly, continuously monitor the combustion gas and maximise the efficiency of the entire energy-from-waste process.



Bunker

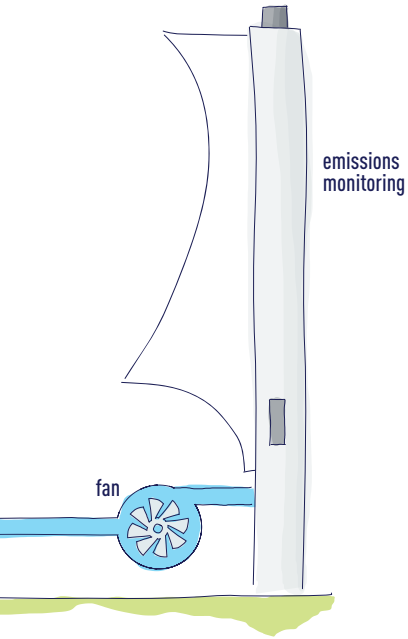
Waste vehicles reverse to a wheel-stop and tip their loads into a large concrete bunker. At 60,000 tonnes of waste delivered per year, this is big enough to hold 16 days' waste, so that tipping can continue when the facility is shut down for maintenance. A shredder, for bulky items such as mattresses, also discharges material directly into the bunker.

Grate and boiler

Combustion air is blown up into the bottom of the water-cooled grate through five computer-controlled zones. The thermal energy released from the burning is used to convert water into super-heated steam. At high pressure, this steam drives a turbine-alternator to generate electricity.

Electricity generation

Electricity is generated at 11kV. At full capacity, around 1.5 megawatts is used to power the facility, leaving up to 5.5 megawatts for export to the Manx Utilities Authority, which distributes it around the island. The facility's switchgear is designed to protect the island's supplies from interruption.



Bottom ash

Ash left on the grate after incineration is carried by conveyor, after quenching, to a storage bunker. A magnet above the conveyor extracts ferrous material for recycling. The remaining bottom ash is sampled for contaminants before being removed for disposal to landfill.

Air-cooled condensers

After exiting the turbine, the steam is cooled and condensed back into water through air condensers. This recovered water is treated and reused in the boilers to produce more steam.

Emission control

The gases from the furnace are subject to a rigorous cleaning process involving selective non-catalytic reduction, spray absorbers and active carbon injection. This removes oxides of nitrogen, acidic gases, dioxins and heavy metals from the gas stream.

Air pollution control residue

The cleaned gas is passed through fine-fabric bag filters to remove solid particles before it is emitted through the stack. The resultant air pollution control residue, or fly-ash, contains particles from the incineration process, lime used in the spray absorbers, salts and carbon dust. It is analysed for contaminants and stored in a sealed silo or bags (approved under international rules for the carriage of dangerous goods) until it is collected for disposal in specialist, authorised facilities.

Emissions monitoring

As they pass through the stack, the residual flue gases from the process are continuously monitored before release. This data is relayed automatically to the control room and to a secure recorder.

The results of monitoring are set out in the data tables at the end of section five. The emissions management systems and all environmental incidents are detailed in section three, which describes how we manage the facility's environmental impacts.

Our operations

Planned maintenance

Two shutdowns are scheduled each year for maintenance. The planned works include the servicing, repairs and replacement of critical plant and equipment that can only be undertaken when the facility is offline. These outages also allow the scheduling of inspections, including annual turbine and boiler surveys, and statutory insurance inspections of systems required by regulations.

During the first outage in March 2024, the remaining gas oil burner on the primary line due an upgrade was overhauled by engineers from its manufacturer, who replaced its control panel and electrics. Extensive repairs were made also to the feed ram pusher, feeding table and leading edge. Refractory works included the replacement of a large section of wall and the lining on the ignition roof. A full inspection, clean and repair of the gas scrubbing system's absorber was also completed.

Following a fault that took the turbine offline in February, waste levels were higher than planned at the beginning of the planned shutdown. This had to be curtailed and some works were deferred to the autumn shutdown.

The second outage was in September, timed to coincide with low levels of waste in the pit. This saw the replacement of some grate bar rows and associated pipework of the grate cooling system as part of a trial of a new design. Thinning boiler tubes identified in a thickness survey in March were replaced. More tubes were replaced in the second pass of the boiler, as was the feed step cooling system under its warranty.

The team also completed all works required under our planned preventative maintenance programme and a schedule of pressure systems that require statutory inspection under insurance cover and safety regulations.

Minimal maintenance was required on the secondary processing line, as it only operates for a short time every six months. The last time the plant will be operated is February 2025, pending a major project to replace the combustion chambers and waste heat boiler. Due to begin in 2025, the work is scheduled for completion in the third quarter of 2026.

Unplanned outages occur when processing is suspended due to critical plant failures and blockages, non-conforming waste, or spikes in emissions due to these or other causes. In 2024, there were five periods of downtime equating to 367 hours – a reduction of around 20% on the year before.

Operational efficiency

The reliability of the facility's many systems – from feeding the furnace to scrubbing gases before they are emitted – depends on timely and effective maintenance. This regime has changed over the years in light of our operational experience and best practice across SUEZ. The focus in the last decade has shifted increasingly to preventative work as the facility's plant and equipment have aged.

All planned maintenance work, servicing intervals and repairs undertaken are tracked on our Mainsaver computer system. To inform that planning and anticipate failures before they occur, our maintenance teams monitor vibration in pumps, motors, fans and other equipment.

We set annual targets to drive operational efficiency and continuous improvement. There are two main targets for maintenance performance:

- The first focuses on the availability and downtime of critical pieces of plant and equipment. Taking account of the projected level of waste throughput – and thus processing time and intensity – we set a target each year for overall equipment effectiveness (OEE). Despite suffering significant operational disruption in the first quarter of the year, the facility exceeded this benchmark by over 4%, achieving 66.9%.
- Our second target measures the effectiveness of our proactive approach to maintenance, which is reflected in the split between what was reactive and preventative. During the year, asset health checks were carried out on 85.9% of the facility's items of plant and equipment. These confirmed that 92.6% of the assets required no action – above the 90% target set for the year.

Continuous improvement

All SUEZ sites are challenged to improve continuously by reviewing operations and identifying projects that will result in better ways of working.

Our people are empowered to lead and implement these improvement projects, based on their training in the principles of 'lean' thinking. The objective is to eliminate any ways in which time or resources are wasted and inspire changes that enhance safety, efficiency or sustainability. We reviewed our Lean teams and allocation of duties during the year to refresh our approach.

Our local management team audited the Continuous Improvement Management System (CIMS) in March. A second audit by the UK group's National Business Transformation Manager awarded our CIMS a score of 84.6%, which is considered gold standard.

We met our target to plan and complete five improvement projects in 2024, concluding six by year end:

- **LED lighting**

  All lighting throughout the facility is now provided by LED lamps. This upgrade saves energy and carbon emissions, and the units' longer life compared with the old system reduces the need to replace bulbs and tubes.

- **Primary air intake inspection hatch**

  A new hatch was built into the primary air intake duct, eliminating the need to erect a scaffold to the high intake grill for regular cleaning.

- **New trailer**

  In a joint initiative with Manx Independent Carriers, a larger trailer was procured to maximise the recovered metals that can be shipped off-island in each load for recycling.

- **Feed ram tool kit**

  The hydraulic ram that pushes waste from the feeder table onto the furnace grate occasionally sticks, requiring manual intervention to move it. A kit was assembled including block and tackle, a socket sized for the bolted door to the feed ram enclosure, and other tools. This kit is now stored at the point of use in a designated box next to the enclosure, facilitating a rapid response to ram malfunctions.

- **Hydro refractory removal**

  A new process for removing damaged sections of refractory wall was trialled. This water jetting method saved time and manual effort and will be used as part of the schedule maintenance regime in future outages.

- **Air-cooled condenser**

  The air-cooled condenser was cleaned to restore the thermal capacities of equipment by removing build-ups and impurities trapped between the fins, which slow the passage of air. This increases condensing or cooling capacity and reduces the motor's power consumption, along with the static pressure beneath the bundles.

What we processed

For the second year running, throughput of waste was below 50,000 tonnes, despite a near-3% increase in municipal waste. Small reductions in most other waste streams offset most of the extra 1,170 tonnes of household waste.

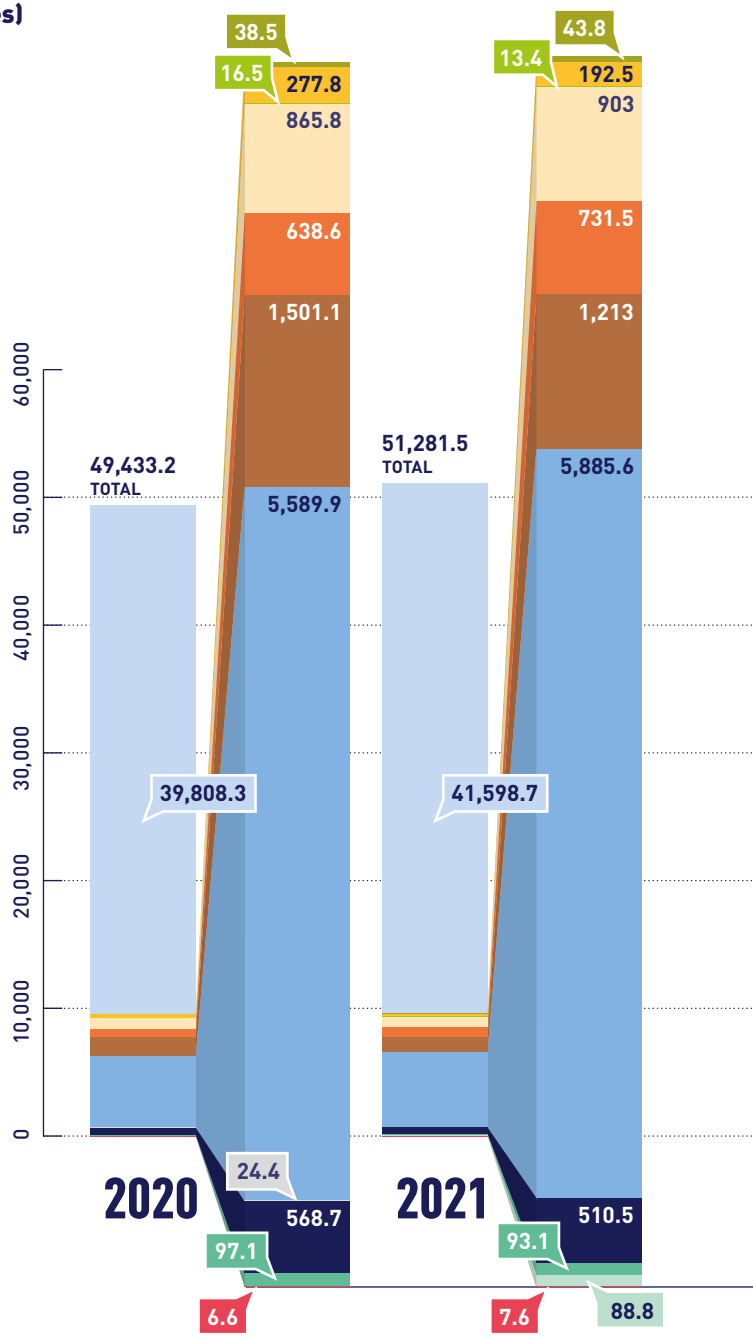
Two other forms of waste increased from 2023 levels: packaging materials by more than 3% to 389 tonnes, and clinical waste saw a rise of about 4% to exceed 300 tonnes. The primary line again processed the majority (around 80%) of this clinical waste.

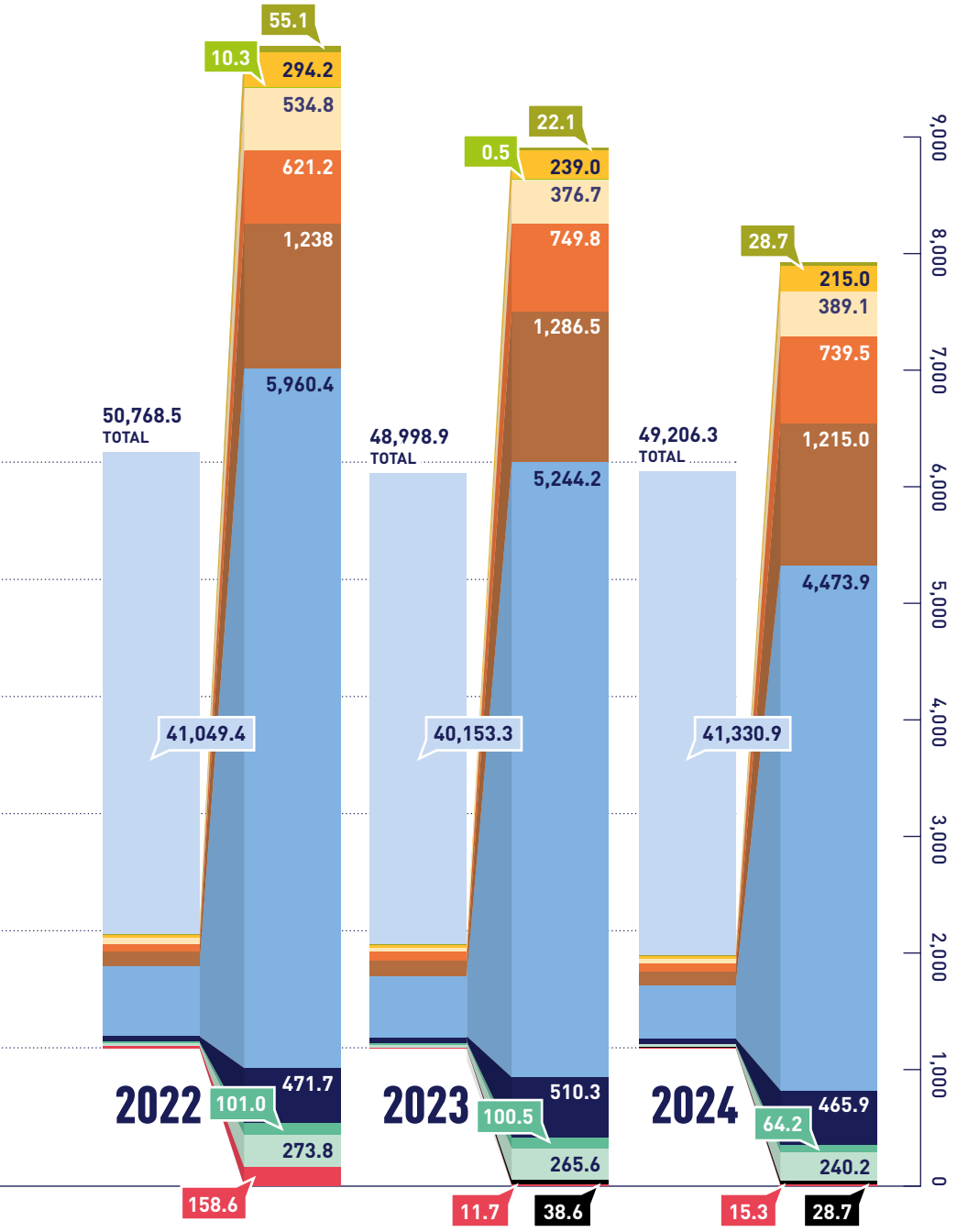
The flow of waste oils and lubricants reduced by almost a quarter to around 61 tonnes.

Waste incinerated in the primary line (tonnes)

Types of waste

- Municipal
- Confidential
- Construction
- Food industry (previously dairy)
- Packaging
- Tyres
- Screenings and biopellets
- Wood
- Forestry waste
- Meat and bone meal
- Hygiene waste
- Clinical waste (excluding sharps and cyto)
- Waste oil and coolant
- Other




55.1
10.3
294.2
534.8
621.2
1,238
5,960.4
50,768.5
TOTAL
41,049.4
2022
471.7
101.0
273.8
158.6
22.1
0.5
239.0
376.7
749.8
1,286.5
5,244.2
48,998.9
TOTAL
40,153.3
2023
510.3
100.5
265.6
11.7
38.6
28.7
215.0
389.1
739.5
1,215.0
4,473.9
49,206.3
TOTAL
41,330.9
2024
465.9
64.2
240.2
15.3
28.7
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0

Waste incinerated in the secondary line (tonnes)

Generating energy

More than 25,500 megawatt hours of power were exported to the grid for the island's homes, other buildings and streetlighting. This was nearly 13% more than in 2023, as the air-cooled condenser was cleaned which helped heat transfer and efficiency.

In the 20 years the facility has been operating, more than 488 gigawatt hours of electricity have been supplied to the grid. Electricity from Richmond Hill is the island's second-cheapest after the Sulby hydro plant, helping to reduce energy prices to residents.

Other outputs and inputs

Apart from electricity, the main output of energy-from-waste is bottom ash. Other by-products are fly-ash and ferrous metals. As for inputs, the waste treatment process depends on supplies of water, gas oil and three chemicals.

Bottom ash

The amount of bottom ash generated varies with the mix of materials as well as the total throughput of waste and the efficiency of combustion. Output was stable in 2024, at around 9,290 tonnes in total.

This ash is an inert material containing naturally occurring contaminants that make up around 5% of its volume. The remaining bottom ash is analysed periodically for contaminants. This residue is sent for disposal at Turkeylands New Quarry.

Air pollution control residue

Fly-ash composed of particles that rise in the gas from the furnace is the other ash by-product from incinerating waste. Gas-scrubbing chemical sprays and bag filters made from fine fabric trap the ash particles. The resultant air pollution control residue (APCR) is treated as a hazardous waste due to its high lime content and the presence of carbon dust, salts, heavy metals and dioxins.

The amount of air pollution control residue and its make-up is determined by the volume and mix of wastes treated and the intensity of the scrubbing required to prevent pollution. Injecting activated carbon removes heavy metals such as lead, chromium and arsenic from flue gas, encapsulating them in the carbon dust.

Air pollution control residue was generated at a lower rate over the year – 27kgs per tonne of waste processed, against 29kgs during 2023. Total output was 63 tonnes lower – a reduction of almost 5% to around 1,350 tonnes. This may be attributed at least in part to higher levels of compliance with the rules on admissible waste – reinforced by monitoring of incoming skip loads – and fewer resultant spikes in sulphur dioxide caused by plasterboard.

The residue is sampled each quarter, sealed in special bags approved for transportation and shipped to a specialist recovery facility in north-east England.

Ferrous metals

Pieces of iron and steel mixed in with other materials in incoming waste are not destroyed in the furnace and are deposited within the bottom ash. An overhead magnet extracts these ferrous metals from the ash as it passes along a conveyor. This system was overhauled by the equipment manufacturer during the year and training was conducted on site, enabling us to recover more metal and reduce breakdown time.

More than 370 tonnes were salvaged, an increase of around 40 tonnes compared with the year before. This material is exported for recycling, but metals recovered after incineration have a lower quality and value than other scrap.

Water

Mains water is treated on-site to produce ultra-pure water for the boiler and superheated steam that drives the turbine and generates electricity. Water is also essential for cooling the furnace grate. Our offices, visitor centre and general cleaning duties also consume water.

Rainwater is collected across the site and stored in an underground tank for use in various plant processes such as cooling heat exchangers, mixing with powdered lime to make lime slurry, and filling the deslagger to create a seal to the furnace negative pressure. Steam exiting the turbine is condensed for re-use in the boiler.

Problems with the grate cooling heat exchanger during 2023 increased the need for water to control abnormally high temperatures. Water usage fell back to a more normal level of less than 13,500 tonnes over the latest reporting period – a reduction of almost 25%.

Gas oil

During the start-up and shutdown phases of operations it is essential to control the furnace temperature to ensure that waste continues to be properly incinerated. This is achieved with oil burners. These are also activated when the temperature drops at other times – for example, when continuous loading of the grate is disrupted by non-compliant waste or other technical problems.

The reliance of the primary incinerator on oil burning was comparable with the year before, as total consumption was again around 220 tonnes. On the secondary line, oil usage was just under 55.5 tonnes – a reduction of almost 20% compared to 2023, when oil had to be burned continuously through two short operating periods. Following repair works, reliance on the oil burners was reduced during two batch runs in 2024.

Our aim remains to minimise oil usage for environmental reasons, while giving priority to maintaining compliant and efficient operation.

Chemicals

We also monitor our consumption of the chemicals used to remove harmful contaminants from flue gases before they are released to the environment.

The year saw improvements in resource efficiency for all three – ammonia, carbon and lime – without compromising our strict observance of our site licence's emission standards.

- Ammonia: Injected into the boiler to remove oxides of nitrogen (NOx), ammonia is also being consumed at a reducing rate. The make-up of waste determines what gases are released and thus the level of ammonia consumption. Just over 20 tonnes in total were required – a 5% reduction compared with 2023.
- Carbon: There was an 11% decrease in consumption of activated carbon. The feed rate is influenced by several factors including the number of start-ups, after which 'double dosing' is required for a period of 24 hours. Just under 20 tonnes in total were required to adsorb dioxins and trace metals in the furnace gases.
- Lime: Used in larger quantities than either ammonia or carbon, lime is mixed with water to form a sprayable solution that neutralises acidic gases in the flue. Consumption fell by more than 10.5% to around 405 tonnes in 2024. A downward trend reflects the steps taken to detect and deter deliveries of non-compliant wastes such as plasterboard, which emit high levels of sulphur dioxide and hydrogen chloride when burned.

Water purification no longer relies on chemicals as our treatment facility removes contaminants through reverse osmosis. The ion exchange system it replaced had required sodium hydroxide and hydrogen chloride.

Other activities

SUEZ Isle of Man also provides ancillary services for hazardous waste and confidential documents.

Hazardous waste

Hazardous wastes produced locally – such as acids, flammable waste, and alkali cyanides from manufacturers, labs and healthcare services – must be treated in specialist facilities off-island. International law governs the transportation of such wastes across borders.

SUEZ Isle of Man has been responsible for managing hazardous waste on behalf of the Government since 2007.

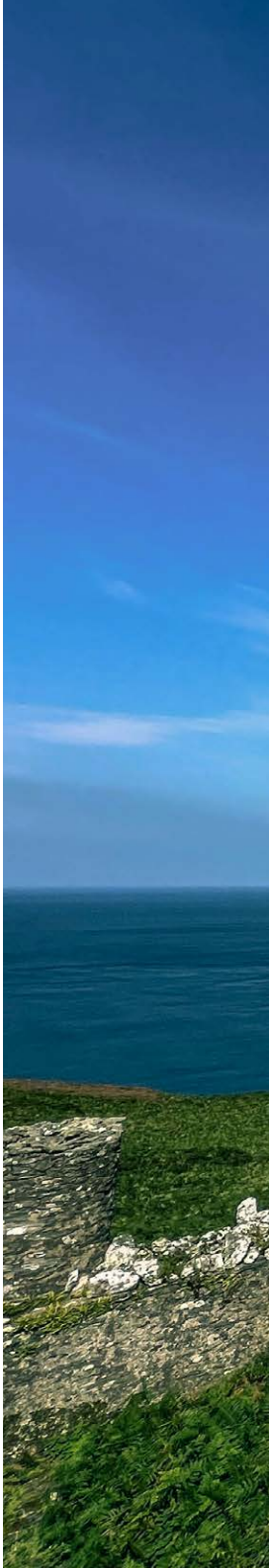
We oversaw 16 shipments during the year. Thirteen loads of dimethylformamide (DMF) solvents used in manufacturing were sent to the UK for recycling. There were two shipments of alkaline waste and one comprised acids for disposal.

All hazardous wastes are kept in a purpose-built store on the Richmond Hill site after expert analysis by our team. Depending on their classification, these substances are consolidated into economic loads for shipment. Our people determine the most appropriate treatment or disposal option and make the necessary arrangements, including preparation of transfrontier shipment notices.

Confidential waste

Records that contain potentially sensitive information but are no longer required can be destroyed securely in the energy-from-waste facility.

Local organisations used this confidential waste service to dispose of more than 28 tonnes of material in 2024 – an increase of over 6.5 tonnes.



Managing environmental performance

Over the two decades since operations began in 2004, the energy-from-waste facility on Richmond Hill has sustained the highest standards of environmental performance.

Here we report on the environmental impacts of our operations, and describe the environmental policy, management systems, auditing and other activities that underpin our compliance.

SUEZ environmental policy

Our environmental policy demands, as a minimum, complete compliance with the terms of our site licence and all relevant legislation and regulations. Wherever practicable, we must strive to exceed those standards.

Our parent company sets this policy framework for all sites and activities. The standardised and tested environmental management systems and procedures we follow are designed to minimise environmental impacts.

Performance is monitored for compliance and also against objectives and targets to drive continuous improvement.

Our integrated policy statement for environment, health, safety and quality

SUEZ Recycling and Recovery UK Ltd recognises that how we manage our customers' and our own waste has an impact on the environment, the health and safety of our employees, persons working on our behalf, and the public. From a position of leadership in the UK's recycling and waste management industry, SUEZ is fully committed to the effective management of all such issues associated with our activities.

Management responsibility

The Management Board will ensure that responsibility for environmental, health and safety, and quality issues is clearly defined and understood throughout the company. All activities will be conducted in a manner designed to: protect the health and safety of our employees, persons working on our behalf and the public; ensure the sustainable consumption of resources, mitigate the causes of climate change and biodiversity loss, and protect the environment from risk of pollution; and ensure a high quality of service for our customers.

Managers should be aware that a European Health and Safety agreement exists. This sets out the standards that the Company expects in respect of securing the health, safety and welfare of our employees and all other persons that could be affected by our business activities. A copy of the agreement can be found in the policy statement section of the SUEZ policies and procedures database.

Legislation

SUEZ will comply with and wherever possible exceed existing environmental, health and safety, fleet and other pertinent legislative requirements at all stages of our business activities and operations.

Stakeholder relations

SUEZ recognises the importance of our relationship with stakeholders: employees, the public, contractors, customers and shareholders. We will communicate this Policy to them, report annually on performance and engage with stakeholders so as to understand and consider their expectations in the way we manage our business.

Continuous improvement

SUEZ will monitor and measure progress by setting improvement objectives and targets to ensure continuous improvement in performance.

In order to mitigate the impact on the environment, enhance health and safety management and performance, and ensure delivery of service to all our customers, SUEZ will:

- Commit to eliminate hazards and reduce occupational health and safety risks in order to prevent injury and ill health and promote a positive health and safety culture.
- Prevent pollution or harm and protect sensitive receptors from industrial incidents and uncontrolled or unintended emissions.
- Mitigate exposure to climate change.
- Continue to improve biodiversity across all our sites each year.
- Become carbon positive by preventing more carbon than we generate by 2040.
- Help our customers reduce waste and reuse more, creating solutions to reuse more material by 2030.
- Empower the sustainability network to drive forwards sustainability improvements across our sites.
- Use suppliers or contractors that have environmental and health and safety standards compatible with our own wherever possible, and maintain good customer and supplier relationships.
- Continually reassess all the above in light of changing technology, legislation, the precautionary principle, business requirements and best practice.
- Ensure adequate resources are provided to meet specified customer and company requirements.
- Ensure personnel working for and on behalf of SUEZ are aware of their responsibilities and comply with our policies and procedures.
- Regularly evaluate and review company performance and service provision.
- Commit to consultation and participation of workers and where they exist, workers' representatives.
- Evaluate the incident and crisis preparedness, response and recovery protocols to mitigate risk.
- Drive forward the promotion of health and wellbeing programmes, providing resources to support our employees.

The Management Board will periodically review this policy to ensure that it continues to meet the needs and aims of the business.

Management systems

From reception of incoming waste deliveries to disposal of bottom ash, all aspects of operating the energy-from-waste facility are covered by our integrated management system.

Procedures for environmental protection, health and safety, and quality of service are unified in one place. This provides a clear and unified set of rules for our people and for every activity, specifying the responsible, safe and effective way of working.

The system includes procedures for reporting both internally and to the island's regulator on our performance against operating parameters, including exceedances of licence limits.

Designed and maintained to international standards, our management system has been continuously certified to the environmental requirements of ISO 14001 since the start of operations. Our system also meets the equivalent standards for quality management – ISO 9001:2008, and for asset management – ISO 550001.

Certification depends on regular independent verification of our management systems and procedures. This is in addition to internal and external compliance auditing.

Environmental compliance

Legislation sets the minimum standards we are required to meet and challenged – under the SUEZ environmental policy – to exceed.

SUEZ Isle of Man strives to surpass, where practicable, the standards laid down in local laws and regulations, and in relevant UK and European legislation.

This local legislation includes:

- The Public Health Act 1990
- The Collection and Disposal of Waste Regulations 2000
- The Import and Export of Waste Regulations 2001
- The Town and Country Planning Act 1934-1991 (as amended 1999)

Local regulation is the responsibility of the Environmental Protection Unit, which reports to the Department of Environment, Food and Agriculture.

Compliance audits

Compliance with the site's waste disposal licence and our in-house management system and procedures is verified regularly through internal and external auditing.

In January, the Government's Environmental Protection Unit conducted its annual audit. The site was given a good overall rating with just one action – involving record-keeping – required and completed.

The site's accreditation to ISO 55001 – the international standard for the management and safety of assets – was independently verified in November 2023.

Internal audits were carried out during the year of asset management, continuous improvement and mandatory competency and other training. These and other aspects of compliance are discussed in regular SHEQ meetings (covering safety, health, environmental management and quality). Twelve were held in 2024. Training updates and the status of certifications required by operations and maintenance personnel were also high on the agenda.

Environmental impacts

Management of environmental performance depends on the people that implement procedures as well as the systems themselves. SUEZ Isle of Man staff are highly competent and trained to carry out all activities in ways that are safe and protect the environment.

As well as emissions to air, water and land, potential environmental impacts to the biodiversity in and around the Richmond Hill site include noise and odour. These risks are set out in the facility's Significant Environmental Impacts Register, which records all foreseeable effects, both positive and negative.

Activities ranging from the delivery and storage of fuel, chemicals and hazardous waste to the handling and disposal of ash residues are risk-assessed. Maintaining the register and reviewing risks helps identify possible improvements in operations and informs emergency planning.

Emergency planning

Our people are trained in the procedures to follow in the event of an emergency to minimise the risk of physical or environmental harm.

We test their preparedness in emergency drills. Staff on duty have no prior warning, and we monitor and review how they manage these simulated incidents.

Each year we set a target for the number of emergency drills to be conducted. For 2024, we tripled the previous year's target to 12, which was achieved. The drills simulated a wide range of scenarios including a waste pit fire, chemical spillage, bottom ash and furnace hopper blockages, injury requiring first aid, a missing person, critical steam turbine generator alarms, a blackout and high flue gas temperature.

After each drill, the responses are reviewed and rated. Lessons are shared with all relevant employees and procedures updated if necessary.

Our environmental performance

Energy-from-waste is one the most tightly regulated processes in Europe. The EU Industrial Emissions Directive defines the monitoring regime that applies on the island.

Under the terms of our site licence, all emissions to air, water and land from the facility are closely monitored and the results reported to the Environmental Protection Unit.

Emissions to air

Our facility's continuous monitoring system analyses gases as they pass through the flue. The readings, which are made after the scrubbing process, are automatically recorded and compared against the emission limits set in the facility's operating licence.

The system measures the following:

- **Particles**
- **Carbon monoxide**
- **Sulphur dioxide**
- **Hydrogen chloride**
- **Oxides of nitrogen**
- **Volatile organic compounds**
- **Ammonia**

The licence also sets limits for certain compounds that cannot be measured continuously and require periodic testing. Dioxins, furans and dioxin-like PCBs are monitored quarterly, while testing for heavy metals and PAHs takes place twice a year[8].

Half-hourly limits are set for some other compounds and a 10-minute interval applies to carbon monoxide. When these thresholds are exceeded, the facility may still operate, but if the emission is not brought back under control within a specified time, our operations team must shut down the facility as soon as practicable.

All exceedances are reported to the Environmental Protection Unit. Our staff take any necessary corrective action before closing the event and communicate the results of our investigation of each incident to the regular.

Daily emission data for the continuously monitored parameters is **reported on our website**[9]. The public can view graphs showing the daily readings for each parameter and emission limit, and the emissions profile for the previous 90 days for both lines.

[8] Polychlorinated biphenyls (PCBs) are banned carcinogenic compounds formerly used to insulate electrical equipment such as transformers. Polycyclic aromatic hydrocarbons (PAHs) occur naturally in crude oil and coal, and also result from incomplete combustion of refuse or wood.

[9] www.suez.co.im

Licence emissions limits

Emissions to air

	Half-hour average	Daily average	Other limit
Particulate matter	30 mg/m^3	10 mg/m^3	
VOCs as Total Organic Carbon	20 mg/m^3	10 mg/m^3	
Hydrogen chloride	60 mg/m^3	10 mg/m^3	
Hydrogen fluoride			2 mg/m^3
Carbon monoxide		50 mg/m^3	150 mg/m^3 95% of all 10-minute averages in any 24-hour period
Sulphur dioxide	200 mg/m^3	50 mg/m^3	
Oxides of nitrogen	400 mg/m^3	200 mg/m^3	
Cadmium and thallium (and their compounds)			0.05 mg/m^3
Mercury (and its compounds)			0.05 mg/m^3
Sb, As, Cr, Co, Cu, Pb, Mn, Ni and V (and their compounds)			0.5 mg/m^3
Dioxins and furans			0.1 ng/m^3
Ammonia			*
Polyaromatic hydrocarbons			*
Dioxin-like PCBs			*

Emissions to water

Surface water	Limit
pH minimum	6
pH maximum	10
Conductivity	*
Temperature	30˚C
Flow duration	*
Suspended solids	*
Chemical oxygen demand	*
Sulphides	*
Sb, As, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ni, Ti and V	*
Visible oil	Nil
Ammonia (N)	0.6 mg/l

* Parameter does not have a limit stated in the waste disposal licence, but is required to be measured and reported to the Environmental Protection Unit.

Sewage treatment facility	Limit
pH minimum	6
pH maximum	9
Visible oil	Nil
Suspended solids	60 mg/l
Biochemical oxygen demand	50 mg/l

Discharges to water

The only discharges to water made from the site are via the sewage bio-treatment system and surface rainwater. Limits for biochemical oxygen demand (BOD) and suspended solids were tightened under a new river discharge licence in September 2023, which replaced the conditions in our original site licence.

Our procedures for operating and maintaining the treatment system involve regular de-sludging and cleaning with biologically safe products. Bacteria are added to promote natural sewage treatment.

Licence variations

Other amendments have been made to our operating licence over the last two decades.

Most of these variations were made by the Department of Environment, Food and Agriculture to allow the processing of additional waste streams. Any such proposal to change the licence – whether initiated by SUEZ Isle of Man or the Department – must be supported by evidence showing that the new material would not affect the safe, compliant and efficient operation of the energy-from-waste process.

Measuring our performance

Throughout 2024, the operations team on Richmond Hill maintained our proud track record of high environmental performance.

In total, there were four incidents when emissions exceeded half-hourly limits, while cumulative emissions remained significantly below the maximum levels specified in our site licence.

Three of the four incidents, which all occurred on the primary processing line, involved volatile organic compounds (VOCs) and the fourth, hydrogen chloride (HCl). Volatile organic compound levels rise when the combustion of waste is incomplete. The metric used is the presence of total organic compound (TOC) in the gases emerging from the furnace.

- **20 February 2024**: Readings for total organic compound rose rapidly, resulting in one half-hour exceedance. The trigger was an explosion in the furnace, causing pressure to rise and a sudden drop in oxygen levels. This prevented complete combustion, leading to a sharp jump in total organic compound. The system reacted quickly as the furnace's induced-draft fan reduced the pressure within seconds and restored oxygen levels.

  Our investigation confirmed that the root cause was the explosion, most likely due to a gas bottle that escaped detection in spot checks of incoming waste.

- **17 July 2024:** As waste oil was nearing capacity and the secondary line was not scheduled to operate until mid-August, the operations team began processing waste oil on the primary line. There was a spike in the total organic compound reading. Again, this returned to normal almost immediately, but the rise was sufficient to exceed the half-hour limit. Waste oil had been processed on the primary line on multiple occasions without incident. Following consultation with the equipment manufacturer, our investigation concluded that the burner nozzle had been clogged by old oil residue in the waste oil pipework from the last waste oil run, 13 months before. The interval between previous batches had been no more than three months.

  Test firing of the waste oil system is now scheduled every three months to pre-empt blockages leading to poor atomisation and burnout of waste oil.

- **25 July 2024**: The circumstances of this final volatile organic compound exceedance mirrored the first incident in February as total organic compound readings were briefly elevated following an explosion in the furnace.

  Non-conforming waste is an ongoing challenge. We continue to check all skip loads and reject any found to be in breach of these rules. Gas bottles are difficult to detect once they have reached the pit, although our operators remain vigilant.

- **7 November 2024**: The half-hourly limit for hydrogen chloride was exceeded when the failure of a temperature probe within the lime spraying system's atomiser caused it to trip. Replacing the faulty atomiser immediately restored the flow of lime slurry and gas flue treatment restored normal operation.

Biodiversity

Biodiversity is one of the core SUEZ principles and part of a commitment to improving the natural environment at every company location, including Richmond Hill.

This means striving to enhance biodiversity and going beyond protective measures – such as controls on discharges to watercourses and risk-managing the movement and storage of oil, chemicals and hazardous wastes. Plans are in place at all sites to guide our efforts. These are informed by the principle of **biodiversity net gain**[10] in land management, under new UK legislation, and by baseline assessments of biodiversity.

Our Sustainability Action Plan also takes account of the island's UNESCO Biosphere status, as well as the local ecosystem around our site, the need to protect existing habitats and potential improvements to promote flora and fauna. Our designated sustainability champion Mike Valerga leads the implementation of the action plan. Actions planned for 2025 will be co-ordinated with other companies and charities involved in the Biosphere partnership.

Over the 12 months, a total of 127 actions were completed. These ranged from planting wildflowers and creating wooden structures for bees and other insects, to smarter travel that reduces car journeys by staff. The plan also covers community interaction.

In spring, work started to create a wildflower garden in front of the main building. Colleagues volunteered to remove gravel from a small area, which was then turfed before planting seeds. The garden is designed to provide further sustenance for our bees. Three more colleagues volunteered to become our site's next beekeepers and completed their training. The garden will be re-planted in 2025 and flowerbeds enriched with compost produced on site.

Lightening the load

Electricity consumption – and the associated carbon emissions – will be lower in future thanks to a lighting upgrade throughout the facility.

In the summer, the group's supply partner Sylvania completed the project, replacing all lights in our offices and facility with LED units.

We estimate that these more efficient lamps will save the equivalent of 50 tonnes of carbon dioxide a year, while also reducing running costs. The improvement project was overseen by our sustainability champion as part of our action plan for 2024.

[10] www.gov.uk/guidance/understanding-biodiversity-net-gain

Climate change

The global SUEZ Group is a leading proponent of the transition to carbon net zero. Its science-based targets to cut carbon emissions are in line with the Paris Agreement's aim to limit global heating to 1.5C above pre-industrial levels. The Group's 2023-2027 Sustainability reflects that commitment.

SUEZ recycling and recovery UK and the industry's trade body, the Environmental Services Association, also back the goal of achieving carbon neutrality by 2040. The company's carbon plan sets out a range of measures to reduce the carbon intensity of the business. Its performance-related pay bonus system for senior managers, since 2021, takes account of each business unit's progress towards sustainability targets and adaptation to climate risks.

Our group continues to refine its methodology for estimating carbon emissions, making carbon calculations more accurate and comprehensive. Extending the assessment more widely across the supply chain, for example, contributed to a 23% increase in SUEZ recycling and recovery UK's Scope 3 emissions in 2023 (its latest published annual Sustainability Report). There were smaller increases in direct emissions (Scope 1, mainly transportation fuel usage) and electricity consumption (Scope 2).

However, emissions that would arise are also avoided on behalf of customers through various activities and services, such as energy generation, manufacturing fuels from waste, recycling and re-use. These outweighed the total of Scope 1, 2 and 3 emissions, maintaining a net positive impact. The avoided emissions per tonne of carbon emitted in providing our services amounted to the equivalent of 1.36 tonnes of carbon dioxide (TeqCO2) per tonne of waste handled.

Calculating emissions

Like our parent company, SUEZ Isle of Man estimates all the carbon emissions arising not only in our operations, but also within our supply chain.

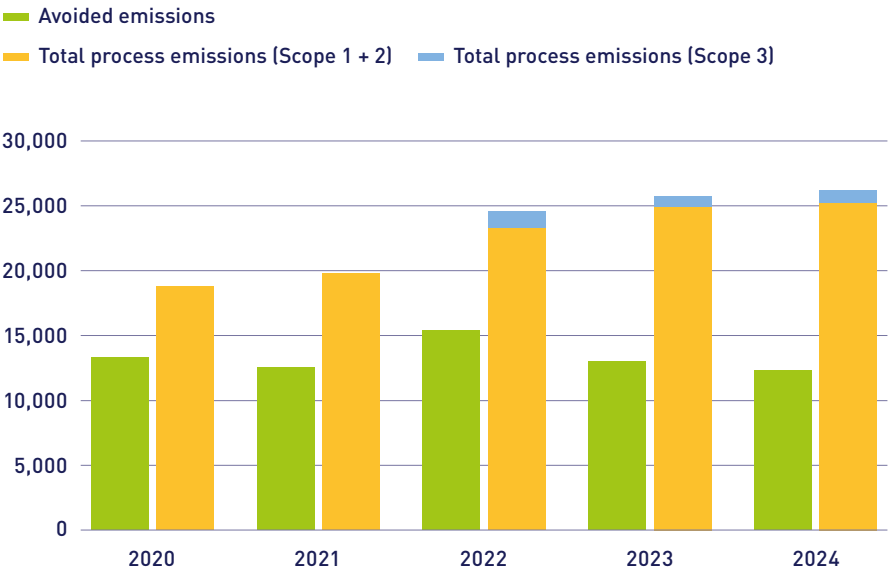
The emissions breakdown for the energy-from-waste facility is as follows.

- Scope 1 – direct emissions, for example, from operating mobile plant and vehicles, and in the case of an energy-from-waste facility, the furnace and boiler.
- Scope 2 – indirect emissions by the electricity or other energy supplier, providing power for lighting, heating and cooling in buildings.
- Scope 3 – emissions in the supply chain, for example, embedded in the products and materials consumed on site, and those associated with disposing of bottom ash.

The emissions data for the last five years is shown here, though it should be noted that past changes in methodology distort year-to-year comparisons. The combined total for Scope 1 and 2 emissions increased by 30% to 32,637 $TeqCO_2$. Meanwhile, the estimate for Scope 3 emissions almost tripled to 2,575 $TeqCO_2$.

More waste was processed than in 2023. The increase in the recovery of ferrous metals for recycling is calculated as an addition to downstream emissions (although emissions from virgin iron and steel are avoided).

Total process emissions and avoided emissions ($TeqCO_2$)



	2020	2021	2022	2023	2024
Avoided emissions	13,318	12,591	15,456	13,003	12,326
Total process emissions (Scope 1 + 2)	18,818	19,803	23,359	24,981	25,290
Total process emissions (Scope 3)			1,287	943	977

Corporate social responsibility

Our commitment to people as part of the triple bottom line extends from the wellbeing of our employees to the wider community we serve.

In this chapter, we describe how we fulfil our responsibilities with respect to health and safety, training and development, and how we contribute to society.

Our people

SUEZ has three over-arching goals that are people-related: keeping people safe, achieving high levels of engagement among employees and making a positive impact on society.

As previous annual public reports have also made clear, the competence and commitment of our team on the island underpin the energy-from-waste facility's consistently high environmental performance and efficiency. This was underlined in 2024 with a SUEZ award for best-run energy facility.

SUEZ people-centred policies take a holistic view of employee wellbeing. Our Wellness for All charter was drawn up with the help of colleagues across the business to reflect their priorities. The charter addresses eight different aspects of wellbeing – from emotional and financial to social and work environment.

Health and safety

Ensuring everyone goes home safe each day is paramount. The company's primary duty is to provide a safe and healthy place of work for our people, contractors and other visitors to our site.

Our integrated management system embeds risk assessment and safe working practices in all our activities. A large element of our extensive training programme is devoted to health and safety.

Safety is enhanced further when the workplace culture encourages employees to take responsibility for their own and colleagues' welfare. Everyone is reminded regularly of their right (and duty) to 'Speak Up and Stop' any potentially unsafe situation they see that could result in injury.

Our behavioural safety programme aims to foster this safety consciousness and vigilance at all levels of the company and in all areas of operations. Called Safety in Mind, the award-winning programme was developed with the input of SUEZ employees. The culture is continuously reinforced through training, 'toolbox talks', team meetings and by our safety representatives, who engage colleagues in discussions about any concerns and ideas for improvements.

This activity is tracked through the year. There were over 1,100 Safety in Mind conversations, while our managers and those visiting from our parent made 135 site visits to observe operations and discuss safety matters. Our inhouse app also captures what we call 'vigiminutes' – 745 were recorded by the team as they risk-assessed tasks to ensure the right tools and safeguards were in place.

Incidents in 2024

We encourage employees and contractors to report near misses and our safety representatives investigate all incidents thoroughly. Lessons learned are carried through into our safe working procedures and training.

During 2024, there were three safety incidents resulting in injury. These involved a fall, eye injury and chemical burn. None met the threshold for statutory reporting to the authorities under RIDDOR (the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations), which are triggered when an injury causes absence from work for three or more days.

The eye injury was caused by lime splashing when preparing slurry solution for the gas scrubbing system. Lime also entered the glove worn by a technician, burning his hand. Both injuries could have been prevented by PPE providing a higher level of protection, now specified in our safe working procedures.

The number of near misses recorded rose to 34, after three years of decline. This would be a salutary reminder, if any were needed, that hazards are a constant and present danger, even in a workplace with an exemplary safety record. High levels of reporting also indicate a shared commitment to raising awareness and improving safety.

A third of the near misses related to contractors not wearing the correct PPE while working during our two annual shutdowns for planned maintenance. All those involved were advised on the appropriate apparel and the potential consequences of not being properly protected. Other risks involved lights found arcing, which were isolated and repaired, a blocked fire exit and incorrect storage of harmful substances.

We also record and report on incidents resulting in damage to property. There were seven such instances during the year, including damage caused by high winds, waste delivery vehicles reversing into barriers, and steps and ladders requiring repair.

Managing vibration risks

We have introduced new measures to monitor the risk of injury to hands and arms caused by vibration.

Our operations and maintenance teams are now required to wear monitors when using drills, grinders, impact guns and breakers. The data captured is analysed to ensure that colleagues' exposure to vibration risk is kept below recommended limits.

Josh Dallimore, Mechanical Technician, who led this project, completed the necessary training to manage this risk.

Training and development

As a learning organisation, SUEZ is committed to personal development at all levels. The corporate training programme continues to expand. It incorporates an e-learning platform offering employees greater autonomy and flexibility in what, when and how they learn.

Line managers review and discuss training needs and opportunities with their team members. Each employee's progress is mapped in our skills and training matrix. Inhouse competency training is mandatory for operations and maintenance personnel, and is formally assessed.

Mandatory training requirements for each role have been standardised across the energy division. There are also site-specific training and skills for each energy-from-waste facility. All training requirements are reviewed each month by management and by Shift Managers with their team members. Our learning management system now automatically tracks mandatory training requirements, alerting employees and enrolling them on the appropriate courses, and ensuring that all qualifications are kept up to date.

Over the 12 months, our people underwent just under 1,170 hours of training. We provided refresher training on confined spaces and re-certified our 'senior authorised persons' who issue work permits and ensure contractors are pre-approved before arrival on site. We also trained colleagues in the testing of the UN-standard containers used for shipping controlled substances, so that this work and associated repairs can be carried out inhouse.

The company provides support for employees pursuing further education, such as part-time degree courses, as well as apprenticeships and industry-accredited courses. Investment in training not only assures the competency of staff, it also promotes continuous learning, develops the next generation of managers and enables fulfilling careers on the island and across the SUEZ Group. We seek to retain talent and promote from within, wherever possible.

Engagement

Team spirit is a core SUEZ value. High levels of employee engagement are essential for teamwork and collaboration as well as compliance and continuous improvement.

Good communications are crucial for engagement. A new staff forum was set up in February. Plant Manager Jon Garrad meets with staff representatives – Electrical Control and Instrumentation Technician Jonny Smith, Shift Manager Andy Muir, Day Operator Chris Savage, and Office Administrator Ellie Fitzpatrick – to discuss any matters raised by their colleagues. The meetings also provide another channel for sharing information, in addition to the site's monthly newsletter for all staff.

Both our parent and the wider Group track engagement and job satisfaction. Annual 'PULSE' surveys invite employees to identify what they feel their employer does well and what could be improved, and how. As a further incentive to share feedback, a £5 donation is made for each response to our two main charity partners – Macmillan Cancer Support and the British Heart Foundation. The 2024 survey raised £25,160, which was shared equally by the two charities. Response rates in the UK and on the island exceed the global 70% average.

SUEZ recycling and recovery UK also conducts a twice-yearly net promoter survey (NPS). Our people have returned consistently high scores. More respondents said they enjoyed working at our facility and would recommend their employer to others than in previous years or in other parts of the group – a 63% score for both questions. This level of engagement was just one of the factors in the award of the SUEZ Energy Cup for 2024.

Teamwork wins the cup

The SUEZ Energy Cup is an annual prize awarded to the best-performing facility within the UK group's energy division, which encompasses anaerobic digestion, gasification and landfill gas activities as well as energy-from-waste. The 2024 winner was announced in November.

Those standards cover a range of criteria by which the island's performance was judged:

- **Efficiency**
  The facility has consistently exceeded overall equipment effectiveness targets, demonstrating excellent teamwork and technical expertise.
- **Safety**
  An excellent safety record is a testament to a strong safety culture and the diligence of staff in caring for one another.
- **Continuous improvement**
  The 2024 lean maturity audit reaffirmed the Gold standard awarded the team for their ongoing commitment to operational excellence.
- **Sustainability**
  The SUEZ sustainability app that logs actions by employees showed that a good cross-section of staff contributed during the year.
- **Volunteering**
  Our people also made a real impact, giving back to the community through their efforts.
- **Engagement**
  Impressive net promoter survey results reinforced SUEZ Isle of Man's ranking as leading energy facility within the division.

> "Winning the SUEZ Energy Cup is a clear indication that we are setting high standards for ourselves to follow"
>
> — Chris Hawke
> EfW Operations Manager

> "Your dedication, hard work and high level of performance have truly set us apart. Your commitment to excellence has not only brought success to the site but also created a positive and inspiring work environment. This achievement is a direct reflection of your passion and teamwork."
>
> — Plant Manager, Jon Garrad, thanking the entire team for their passion and teamwork

The team celebrated with a meal held on site so everyone could attend.

Our team

At the end of 2024, SUEZ Isle of Man had a workforce of 36 people. There were no leavers, one joiner and two promotions were confirmed during the year:

- Josh Dallimore joined the team in June as a Mechanical Technician.
- In February, Dean Marchbank was confirmed as Assistant Maintenance Manager, following a six-month trial period.
- Jonny Smith stepped up to the role of Electrical Control and Instrumentation Technician.
- Trevor Illingworth and Stephanie Gray also joined the team as facility Tour Guides. Trevor brings years of experience from the merchant navy on large steam ships, while Stephanie has a deep understanding of the Isle of Man waste strategy from her time as Head of Waste Management in the Department of Infrastructure.

Continuity has played an important part in the facility's sustained performance over the last two decades. That fact is underscored by the continuous service of eight of our original team – Ross Cormode, Robert Jepson, John Hyland, Paul McCallum, John O'Toole, Conrad Philander, Elliot Millar and Chris Savage. Colleagues toasted their 20-year anniversary at a celebratory dinner. It was fitting that retired former Plant Manager Gerrit Du Toit, who recruited the now veteran eight, joined in the celebrations.

Another member of the team entered the growing group of colleagues who have spent the last decade with SUEZ Isle of Man as Akkie van den Berg reached his 10-year anniversary.

Our award winners

Awards for special contributions by SUEZ people are announced at company conferences held by our parent company.

Several colleagues won awards during the year.

- **Sustainable Environment Award** – Michael Valerga, our Champion for sustainability at Richmond Hill.
- **Digitalisation and Data Accuracy Award** – Our Administration Manager Amanda Garfield and Operations Manager Chris Hawke shared an award with Fiona Hickman of our training team for their intensive work upgrading our learning management system, which now automatically enrols staff on essential training courses and tracks expiring qualifications.
- **Another Sustainability Award** went to Akkie van den Berg. Announced at the SUEZ energy division's annual conference, this recognised the wooden homes for wildlife he designed and built using old pallets and his self-taught carpentry skills.
- Two other colleagues were runners-up: Amanda Garfield for **the most funds raised for charity**, and Joe Callow for **Rising Star Apprentice**.

Our community

The concept of social value stems from the belief that companies should seek to increase the beneficial impacts that doing business can have on society. SUEZ has been a pioneer in the waste sector, encouraging local authorities and service providers to measure and maximise these benefits. Social value is also closely entwined with the company's triple bottom line approach.

Quantifying the social value generated by a large and diverse business is a challenge. In the case of SUEZ, the calculation is based on 88 indicators tracking contributions ranging from charitable donations and staff volunteering to spending with social enterprises and small and medium-sized firms.

Total social value exceeded £2.7 billion in 2023 (the latest available figure), a 4.5% increase on the year before. One of the UK group's nine strategic objectives for our triple bottom line is to push that beyond £3 billion.

Fundraising for charity

Macmillan Cancer Support has been our national charity partner for the UK and Isle and Man for a decade. In 2024, we launched our second partnership with the British Heart Foundation, Europe's biggest funder of research into heart and circulatory diseases. Given heart health and cancer are the two biggest health issues in our society, our two partners are complementary.

Our people again made a valuable contribution. Together with our colleagues in the UK, we raised £170,000 for charity.

On the Isle of Man, we generated over £1,700 from a variety of events, including a hog roast, sales of cakes, bacon baps and a Christmas cake, a tuckshop, sweepstake, bowling and golf day competitions.

Education and careers

Education is another SUEZ social priority, reflected in teaching resources provided online and in outreach support for schools near our sites. In November, college students spent a morning carrying out a set of tasks devised for them by our colleagues, Dean Marchbank and Michael Valerga.

We are working to inspire the island's next generation of engineers, technicians and operators. Early in 2024, our company – in conjunction with the Isle of Man Chamber of Commerce – joined the ACE forum. Standing for Awareness of Careers in Engineering, ACE was founded in 2007 with the main aim of encouraging children of primary age and older to study the STEM subjects (science, technology, engineering and mathematics).

ACE organises events and engages with schools, hosting assemblies and supporting lessons. It also encourages students to consider UCM engineering apprenticeships. Our people will be participating along with representatives from other members – Swagelok, Ronaldsway Airport, Triumph, Strix, Kiartys, MUA and Target Tools.

We will also be supporting STEMfest, which aims to nurture young people's interest in science, technology, engineering and mathematics. It was postponed until March 2025 to give schools more time to allow Year 5 and 6 students to attend the event at the Villa Marina.

Volunteering for good causes

Our scheme encouraging employees to devote A Day A Year To Volunteer is now well established. Once again, the island's hospice hosted groups of SUEZ volunteers on three separate occasions in April and July. The teams weeded flowerbeds, removed moss, trimmed lawn edges and carried out various other duties.

One of our shift teams helped with painting, building shelves and tidying up at the Ellan Vannin Gym.

Another spent a day at Grasshoppers Nursery, where they mowed and strimmed the playground, repaired its furniture and also built new indoor furniture for the children.

Colleagues also spent a Sunday morning in August with the island's Beach Buddies.

Our neighbours

Our facility's design, the register of risks for our site and operating procedures take account of all potential impacts on our local environment, from pollution to odour and noise.

Practical examples include the fans that maintain negative air pressure and contain dust and smells within the reception hall as trucks tip household waste into the pit, and the white-noise reversing alarms fitted to vehicles handling materials around the site.

We keep ourselves accountable by recording and promptly investigating all complaints received, reporting back to complainants and taking corrective actions where required. Members of the public can contact us directly, via community representatives or through the Department of Environment, Food and Agriculture. Members of the statutory Richmond Consultative Committee can also apply to convene a meeting to raise concerns or request information on our activities at any time.

No complaints were received during 2024.

Our visitors

We continue to improve the facilities at Richmond Hill's visitor and education centre, which has proven its value as a resource for schools and other interest groups over two decades.

An activity table for our younger visitors has been installed. Its main frame and top were crafted from timber recovered from the renovated Queen's Pier in Ramsey. A fallen tree blown down in a storm in 2023 provided the wood for its bench seats. This table is a useful addition for young children who are not permitted within the energy-from-waste facility for safety reasons. They and others unable to tour the facility in person can take a virtual tour, viewing operations close-up on touch screens.

We hosted 21 groups of visitors over the year, which included 324 school students under the age of 18 spread over 16 group visits. There were a further five tours by college students, businesspeople, members of the public and social groups.

Our communications

Apart from our direct engagement with local groups, authorities and residents, this annual report and the company's website are our main channels of communication with the community.

Website users can view daily emissions, three-month trends and details on electricity generation at **www.suez.co.im**

For further information about our parent company's activities, energy-from-waste, the circular economy and our research reports, please visit the SUEZ recycling and recovery UK website at **www.suez.co.uk**

Our objectives

SUEZ Isle of Man sets annual objectives and targets to ensure high levels of performance and compliance are maintained and to drive continuous improvement.

How we did in 2024

Our strategic objectives	Targets set for end of 2024
Emergency preparedness	Carry out four emergency preparedness procedures.
Biodiversity	Implement biodiversity action plan, as required.
Hazardous waste	Complete hazardous waste shipments, as required.
Compliance and communication	Conduct safety, health, environment and quality meetings.
Environmental protection and compliance	No daily emission breaches during normal operating conditions.
Oil usage	Reduce oil usage to 2019 level.
Staff competency	Maintain competency matrix.
Management systems	Maintain ISO certification.
Reporting	Meet SUEZ internal reporting and carbon monitoring requirements.
Operational efficiency	Meet operational equipment efficiency and preventative maintenance targets.
Continuous improvement	Conduct five continuous improvement projects.

Those benchmarks are listed in the table here, which also shows how we performed against our objectives in 2024. Our targets for 2025 are set out on the following page.

All the supporting data for the commentary in the preceding sections of the report is laid out in the tables on the remaining pages of this publication.

Achieved?	How we performed
✔	12 emergency exercises completed, ranging from first aid and fire drills to hopper blockage and high flue gas temperature.
✔	129 sustainability actions completed during 2024. The three largest categories were action for nature, smarter travel and connecting with the community.
✔	16 loads in total – 13 of DMF were shipped off-island for recovery, and two of alkali/cyanide, plus one of acids, both for disposal. Other batches were taken from industry, labs and medical facilities for storage, pending shipment.
✔	12 meetings held through the year.
✔	There were no daily emissions limit breaches. Half-hourly limits were exceeded on four occasions – three for total organic compound (TOC) and once for hydrogen chloride (HCl).
✖	Oil usage was reduced slightly in 2024 compared to 2023 but has not yet reached 2019 levels.
✔	Monthly meetings were held and minutes recorded.
✔	All ISO certifications maintained.
✔	SUEZ Isle of Man has reported its carbon contribution for 2024, as well as reporting on all other emission factors and usage of consumables.
✔	Despite significant operational issues in the first quarter, the site exceeded the OEE benchmark for 2024 of 62.8% by over 4% – achieving 66.9%.
✔	Asset health monitoring showed that 92.6% required no action – exceeding the 90% target.
✖	The proportion of assets tested was 85.9% – against a target of 90%.
✔	Six projects completed.

Objectives and targets for 2025

Our strategic objectives	Targets set for end of 2025
Emergency preparedness	Carry out 12 emergency preparedness procedures.
Biodiversity	Implement sustainability and biodiversity action plan, as required.
Hazardous waste management	Complete hazardous waste shipments, as required.
Compliance and communication	Conduct safety, health, environment and quality meetings.
Environmental protection and compliance	No daily emission breaches during normal operating conditions. No BOD breaches following installation of the new sewage system.
Oil usage	Maintain primary oil usage at 2024 levels.
Staff competency	Conduct monthly staff training meetings.
Management systems	Maintain ISO certification.
Reporting	Meet SUEZ internal reporting and carbon monitoring requirements.
Operational efficiency	Meet operational equipment efficiency and preventative maintenance targets.
Continuous improvement	Conduct eight continuous improvement projects.

Performance data

All data has been collated from source data for this report. This provides a greater level of accuracy and accounts for slight changes compared to past reports.

Waste delivered

Wastes processed in the primary incinerator (tonnes)	2020	2021
Confidential	38.5	43.8
Construction	277.8	192.5
Food industry (previously dairy)	16.5	13.4
Municipal	39,808.3	41,598.7
Packaging	865.8	903.0
Tyres	638.6	731.5
Waste screenings and biopellets	1,501.1	1,213.0
Wood	5,589.9	5,885.6
Forestry	24.4	0
Meat and bone meal	568.7	510.5
Hygiene waste	97.1	93.1
Clinical waste (excluding sharps and cyto)	-	88.8
Waste oil and coolant		
Other	6.6	7.6
Total	**49,433.2**	**51,281.5**

Wastes incinerated in the secondary incinerator (tonnes)	2020	2021
Clinical	284.8	256.0
Waste oil	77.7	82.8
Total	**362.5**	**338.8**

Exceedances	2020	2021
Number of exceedances of licence emission limits	6	7

2022	2023	2024
55.1	22.1	28.7
294.2	239.0	215.0
10.3	0.5	0
41,049.4	40,153.3	41,330.9
534.8	376.7	389.1
621.2	749.8	739.5
1,238	1,286.5	1,215.0
5,960.4	5,244.2	4,473.9
0	0.0	0
471.7	510.3	465.9
101.0	100.5	64.2
273.8	265.6	240.2
	38.6	28.7
158.6	11.7	15.3
50,768.5	**48,998.9**	**49,206.33**

2022	2023	2024
56.6	26.4	63.8
69.6	46.4	32.8
126.2	**72.8**	**96.6**

2022	2023	2024
7	4	4

Consumption of raw materials

	2020		2021	
	Kg per tonne of waste	Total tonnage	Kg per tonne of waste	Total tonnage
Gas oil (primary)	7.0	343.8	8.4	398.9
Gas oil (secondary)	1,260.1	319.1	1,153.2	308.9
Water	271.2	10,479	194.4	9,211
Lime	8.0	382.8	9.6	453.3
Activated carbon	0.5	22.9	0.5	25.7
Ammonia	0.7	32.9	0.6	28.0

Energy consumption and generation

	2020		2021	
	MWh per tonne of waste	Total MWh	MWh per tonne of waste	Total MWh
Electricity consumed	0.018	861.5	0.044	2,078.4
Electricity exported	0.530	25,556.0	0.426	20,228.0

Waste recovery and disposal

	2020		2021	
	Kg per tonne of waste	Total tonnage	Kg per tonne of waste	Total tonnage
Bottom ash (landfill)	205.7	9,926.6	206.3	9,799.4
Air pollution control residue (landfill)	32.1	1,538.7	33.6	1,587.3
Ferrous metal (recycled)	5.9	286.7	9.8	466.8

2022		2023		2024	
Kg per tonne of waste	Total tonnage	Kg per tonne of waste	Total tonnage	Kg per tonne of waste	Total tonnage
3.6	184.8	4.5	220.8	4.5	220.7
898.0	50.9	915.7	66.7	491.2	53.7
250.0	12,879.0	368.0	18,064.0	273.0	13,469.0
9.1	469.1	9.2	453.5	8.2	405.5
0.5	23.5	0.4	21.2	0.4	20.4
0.5	25.6	0.4	21.5	0.4	18.8

2022		2023		2024	
MWh per tonne of waste	Total MWh	MWh per tonne of waste	Total MWh	MWh per tonne of waste	Total MWh
0.012	620.7	0.013	650.7	0.014	674.3
0.492	25,340.0	0.462	22,647.7	0.518	25,548.2

2022		2023		2024	
Kg per tonne of waste	Total tonnage	Kg per tonne of waste	Total tonnage	Kg per tonne of waste	Total tonnage
193.9	9,937.0	187.0	9,179.9	189.0	9,293.1
29.0	1,494.3	29.0	1,416.8	27.0	1,353.8
10.3	528.0	6.7	330.4	7.6	374.2

Air emissions

	2020		2021	
	Kg per tonne of waste	Total tonnage	Kg per tonne of waste	Total tonnage
Particulate matter	0.004	0.18	0.002	0.09
Volatile organic compounds	0.004	0.18	0.005	0.22
Hydrogen chloride	0.044	2.12	0.044	2.09
Hydrogen fluoride	0.000	0.0072	0.005	0.23
Carbon monoxide	0.069	3.31	0.054	2.56
Sulphur dioxide	0.120	5.77	0.119	5.61
Oxides of nitrogen	1.077	51.7	1.133	53.58
Ammonia	0.00	0.03	0.001	0.030
Cadmium and thallium	4.8×10^{-06}	0.00023	4.9×10^{-06}	0.00023
Mercury	4×10^{-06}	0.00019	3.8×10^{-06}	0.00018
Sb, As, Cr, Co, Cu, Pb, Mn, Ni and V	6.8×10^{-04}	0.033	2.8×10^{-04}	0.0132
PAH	2.5×10^{-05}	0.0012	7.5×10^{-05}	0.00036
Dioxins and furans	2.6×10^{-11}	1.3×10^{-09}	7.8×10^{-11}	3.7×10^{-09}
Dioxin-like PCBs	2.3×10^{-12}	1×10^{-10}	5.9×10^{-12}	3×10^{-10}

* Tonnages allowed under licence conditions calculated using the waste disposal licence limit, flue flow rate based on actual waste to flue gas ratio and hours the facility can operate in the year (excluding two-week maintenance outage).

Water emissions

	2020		2021	
	Kg per tonne of waste	Total tonnage	Kg per tonne of waste	Total tonnage
Suspended solids*	0.006	0.32	0.008	0.41
Biochemical oxygen demand*	0.0015	0.07	0.0010	0.06
Chemical oxygen demand*	0.005	0.26	0.003	0.16

* Calculated from estimated flow rate.

2022		2023		2024		Tonnes allowed under waste licence*
Kg per tonne of waste	Total tonnage	Kg per tonne of waste	Total tonnage	Kg per tonne of waste	Total tonnage	
0.005	0.26	0.001	0.06	0.003	0.13	2.5
0.004	0.20	0.004	0.18	0.004	0.17	2.5
0.045	2.34	0.032	1.55	0.035	1.74	2.5
0.001	0.07	0.000	0.00	0	0	0.0
0.056	2.91	0.042	2.06	0.046	2.25	12.7
0.115	5.92	0.110	5.49	0.070	3.51	12.7
1.441	74.21	0.830	40.62	0.840	41.25	50.8
0.001	0.050	0.001	0.040	0.001	0.050	-
4.8×10^{-06}	0.00025	4.1×10^{-06}	0.0002	5.4×10^{-06}	0.0003	0.01
5.1×10^{-06}	0.00027	6.9×10^{-06}	0.0003	9.4×10^{-06}	0.0005	0.01
5.3×10^{-04}	0.028	1.1×10^{-04}	0.006	6.0×10^{-05}	0.003	0.13
7.3×10^{-6}	0.00038	9.0×10^{-6}	0.0004	2.0×10^{-05}	0.0008	
2.5×10^{-10}	1.2×10^{-08}	6.9×10^{-11}	3.4×10^{-09}	5.5×10^{-11}	2.7×10^{-09}	
4.8×10^{-11}	2.5×10^{-09}	1.1×10^{-11}	5.3×10^{-10}	4.8×10^{-12}	2.4×10^{-10}	

2022		2023		2024	
Kg per tonne of waste	Total tonnage	Kg per tonne of waste	Total tonnage	Kg per tonne of waste	Total tonnage
0.004	0.20	0.007	0.32	0.007	0.35
0.0010	0.05	0.0010	0.04	0.0020	0.08
0.004	0.19	0.006	0.29	0.008	0.37

Glossary

Anaerobic digestion
The process by which organic matter is broken down by bacteria in the absence of oxygen.

Air Pollution Control Residue (APCR)
Particles from combustion gases, heavy metals and dioxins, carbon dust, salt and lime used in the gas-cleaning process, also known as fly-ash.

Biodegradable
Capable of being decomposed by bacteria or other biological means.

Bottom ash
The residue formed on the furnace grate when waste materials are incinerated.

Circular economy
Within a circular economy, the role of resource and waste management is to help prevent waste throughout the whole system, to target materials for harvesting, to manage their logistics in efficient ways, and to treat and return the recovered secondary resources back into the cycle of production and consumption in a compliant and economic manner.

Climate change
The process in which man-made gases are building up in the atmosphere, trapping the sun's heat, causing changes in weather patterns on a global scale.

Deslagger
The system that removes the bottom ash from the incinerator. It comprises a drop-off chute from the final grate, a water filled chamber, a hydraulic pusher and an inclined discharge chute. Also called an ash-extractor.

Dioxins and furans
A large family of compounds – including some of high toxicity – that are by-products of uncontrolled burning, incineration and certain industrial processes, as well as volcanoes and forest fires.

Energy-from-waste (EfW)
The incineration (burning) of waste at high temperatures to reduce its weight, volume and toxicity. The energy from the incineration process is used to generate electricity.

Environment Agency
The UK's waste industry regulator. A non-departmental government public body, set up under the Environment Act 1995 to take an integrated approach to environmental protection and enhancement in England and Wales.

EU Industrial Emissions Directive
Issued by the European Union, the directive commits European Union member states to control and reduce the impact of industrial emissions on the environment. It takes an integrated approach to controlling pollution to air, water and land, and sets challenging industry standards for the most polluting industries. The directive aims to prevent and reduce harmful industrial emissions, while promoting the use of techniques that reduce pollutant emissions and that are energy and resource efficient.

Fly-ash
See Air Pollution Control Residue.

Furans
See dioxins.

Gasification
Gasification is a method for extracting energy from different types of organic material through thermal treatment.

Greenhouse gas
Natural and man-made gases that contribute to the 'greenhouse effect' and climate change, including carbon dioxide, methane, ozone and chlorofluorocarbons (CFCs).

Hazardous waste
Defined by EU legislation as the wastes most harmful to people and the environment.

ISO 14001
The international standard for environmental management.

ISO 9001
The international standard for quality management.

ISO 45001
The international standard for occupational health and safety management.

ISO 55001
The international standard for asset management.

Landfill
The deposit of waste into or onto land in such a way that pollution or harm to the environment is minimised or prevented and, through restoration, reclaims land which may then be used for another purpose.

Landfill Directive
The Landfill Directive (Council Directive 1999/31/EC) aims to prevent, or to reduce as far as possible, the negative environmental effects of landfilling.

Mainsaver
A Computerised Operation and Maintenance Management System (COMMS). Used for the management of maintenance and operational tasks, including scheduling of preventative and planned maintenance activities, asset health recording, electronic shift log, raising and recording work requests and detailed maintenance costs.

Methane
An odourless gas and principal component of natural gas and landfill gas, produced as biodegradable waste breaks down in a landfill site. Over 20 times more potent as a greenhouse gas than carbon dioxide.

Municipal waste
Household waste, as well as other industrial and commercial waste similar in nature or composition, such as wastes collected by a waste collection authority or its agents (i.e. wastes from municipal parks and gardens, beach cleansing, and fly-tipped materials).

MWh
Megawatt-hour, equivalent to one million Watt-hours, and a unit of energy (one Watt is equivalent to one Joule of energy per second).

Recycling
The direct reintroduction of a waste type into the production cycle from which it originates as a total or partial replacement for new material.

RIDDOR
The UK's Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995, which require the reporting of work-related accidents, diseases and dangerous occurrences.

VOCs
Volatile organic compounds: carbon-based compounds that easily evaporate into the atmosphere, commonly used in industry for de-greasing, thinning and dissolving, and found in paint, inks and adhesives.

WEEE
Waste electrical and electronic equipment. The WEEE Directive was introduced in the UK in January 2007 and aims to reduce the amount of electrical and electronic equipment being produced, and to encourage re-use, recycling and recovery.

The verifiers' verdict

"Further to consideration of the documentation, data and information resulting from the organisation's internal procedures examined on a sampling basis during the verification process, it is evident that the environmental policy, programme, management system, review (or audit procedure) and environmental statement meet the requirements of the Isle of Man Government in providing an annual report and reflects the commitment of SUEZ Isle of Man to satisfy and surpass the standards set in the relevant UK and European legislation as well as local laws and regulations."

Signed: 

Date: 11 April 2025

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