



ANNUAL SUSTAINABILITY REPORT 2022

Alvance British Aluminium



TABLE OF CONTENTS

Message From The Managing Director 2

2022 Snapshot 3

Business Context..... 4

Management structure..... 5

Environmental performance and sustainability 6

 Strategy..... 6

 Aims 6

 Current carbon and energy performance..... 6

 Carbon 6

 Energy 8

 Methods of Environmental Data Collection 8

 KPI Performance 9

 Environmental incidents:..... 9

 Air Emissions:..... 10

 Waste minimisation:..... 13

 Resource efficiency:..... 16

 Emissions to water:..... 19

 Biodiversity net gain: 21

Health and safety performance..... 22

 Strategy..... 22

 Aims 22

 KPI Performance 23

 Incident Investigation Process..... 24

People, Human Resources and Community relations 25

 Engage, Listen and Act..... 25

 Physical Safety and Mental Wellbeing..... 26

 Attract, develop and retain talent 26

 Community, Schools and Charities 27

 Reward and Recognition..... 28

 Compliance 28

Business continuity..... 29

 Supply Chain Resilience 29

 Aluminium Recycling and Billet Casting Facility..... 29

 Alvance High-Level Accident Hazard Prevention and Mitigation 30

MESSAGE FROM THE MANAGING DIRECTOR

Dear team and stakeholders,

I am delighted to present to you the first annual sustainability report for ALVANCE British Aluminium. As the Managing Director, I am proud to share with you the highlights of our commitment to sustainability and our ongoing efforts to minimise our environmental impact.

At ALVANCE British aluminium, sustainability is not just a buzzword; it is a core value that drives our operations and decision-making processes. We firmly believe that responsible and sustainable practices are essential for the long-term success of our business and the well-being of our planet.

One of our key achievements in sustainability is our commitment to producing aluminium with a low carbon footprint. This is made possible by our hydro power source of energy, which significantly reduces our reliance on fossil fuels. By harnessing the power of water, we are able to minimise greenhouse gas emissions associated with our smelter and contribute to a cleaner and greener future.

Sustainability is not only important to us, but also to our ownership group. We share GFG's ambitions to being carbon neutral by 2030 – CN30. Together we are fully committed to supporting efforts in creating a more sustainable future. Collectively, we strive to lead the industry in sustainable practices and set an example for others to follow.

In our energy-intensive industry, the benefits of hydropower cannot be overstated. It not only reduces our carbon emissions but also provides a reliable and renewable source of energy. This allows us to maintain our operations while minimising our impact on the environment.

We are dedicated to continuous improvement and transparency in reporting our environmental, health & safety, and energy consumption data. By openly sharing this information, we hold ourselves accountable and ensure that we are constantly striving for better performance. We believe that transparency is the key to building trust with our stakeholders and fostering a culture of sustainability.

Our commitment to the community in which we operate is unwavering. We understand the importance of being a responsible corporate citizen and actively contribute to the well-being of our local communities. We engage with stakeholders, listen to their concerns, and work collaboratively to address any issues that may arise. We believe that by building strong relationships with our community, we can create a positive and lasting impact.

Furthermore, we are utilising our large rural estate holdings to go beyond reducing our carbon footprint. We are actively developing wider biodiversity projects to support our core values and fight climate change. By preserving and enhancing the natural habitats within our estates, we are not only protecting biodiversity but also contributing to the overall health of our planet.

In conclusion, our annual sustainability report reflects our unwavering commitment to sustainability, transparency, and community engagement. We are proud of our achievements and remain dedicated to continuously improving our practices to create a more sustainable future for all.

Thank you for your continued support and partnership.

Sincerely,



Tom Uppington

2022 SNAPSHOT

Over 20% decrease in PFC and PM Emission intensity since 2021



Energy intensity was 14.2MWhr/t Al

0.19t of waste per tonne of Aluminium with a recycling rate of 86%



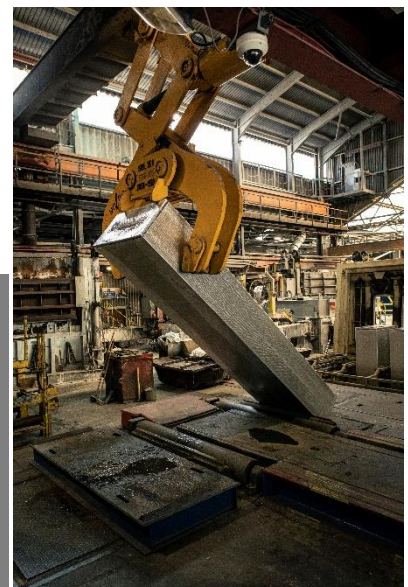
Carbon intensity was 1.99 tCO₂e/t Al

16% of employees were female

88% of electricity used came from the site's hydroelectric scheme



Zero non-conformances during external audits for ISO 45001:2018, 14001:2015 and 9001:2015



BUSINESS CONTEXT

The Lochaber smelter, run by Alvalde British Aluminium, is a primary aluminium smelter located approximately 2km northeast of Fort William. It has the capacity to produce approximately 48,000 tonnes of cast aluminium per annum via electrolysis. The electricity for this process comes from a neighbouring hydro-electric power station with a small percentage of national grid power when necessary. The electrolysis process turns Alumina into Aluminium using carbon anodes and an input of electricity. A more detailed process flow diagram has been created and is shown in Figure 1.

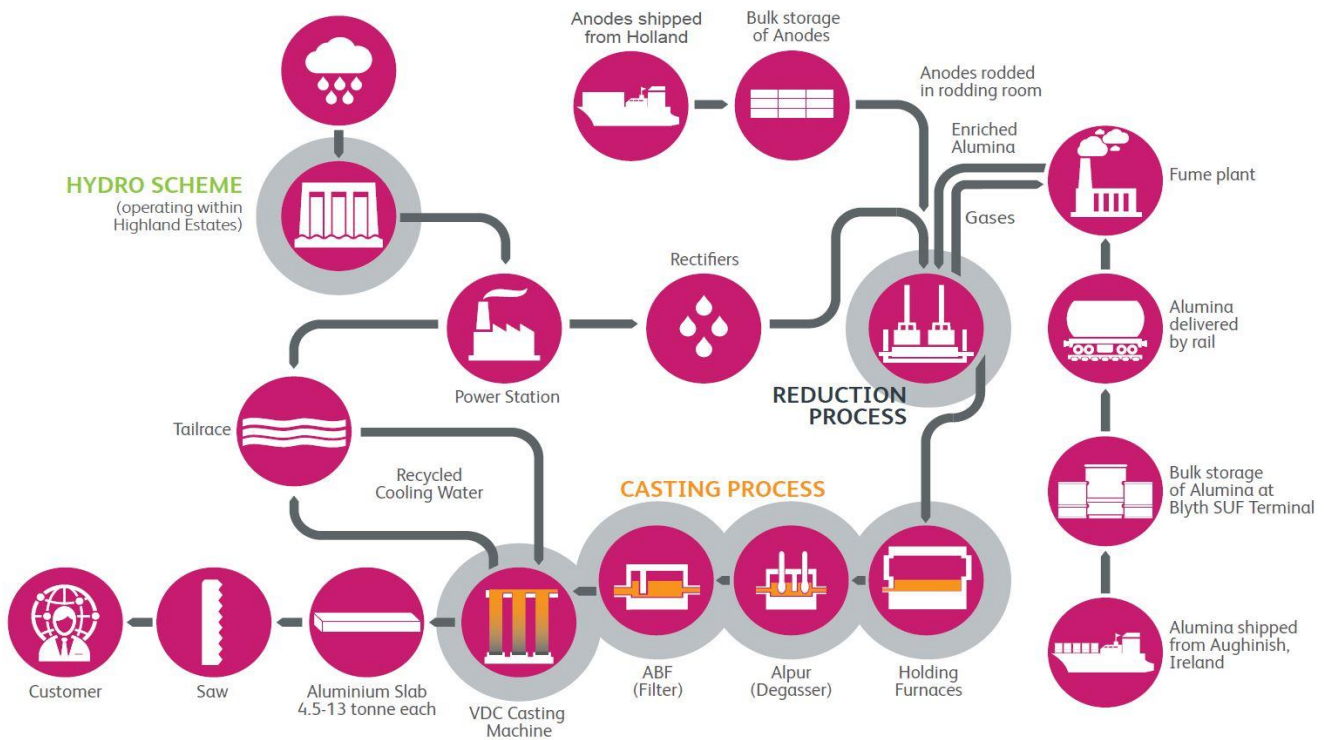


Figure 1, Lochaber Smelter process flow

The main areas of environmental impact arising from the smelter’s activities relate to waste management, resource use and emissions which will all be detailed within this report. As well as environmental impacts, economic and social sustainability will also be explained in relation to current practices and future targets.

MANAGEMENT STRUCTURE

Alvance British Aluminium is a member of the GFG Alliance, a worldwide organisation specialising in heavy industrial processes. The structure of Alvance British Aluminium is displayed in Figure 2, detailing the senior management team and departments.

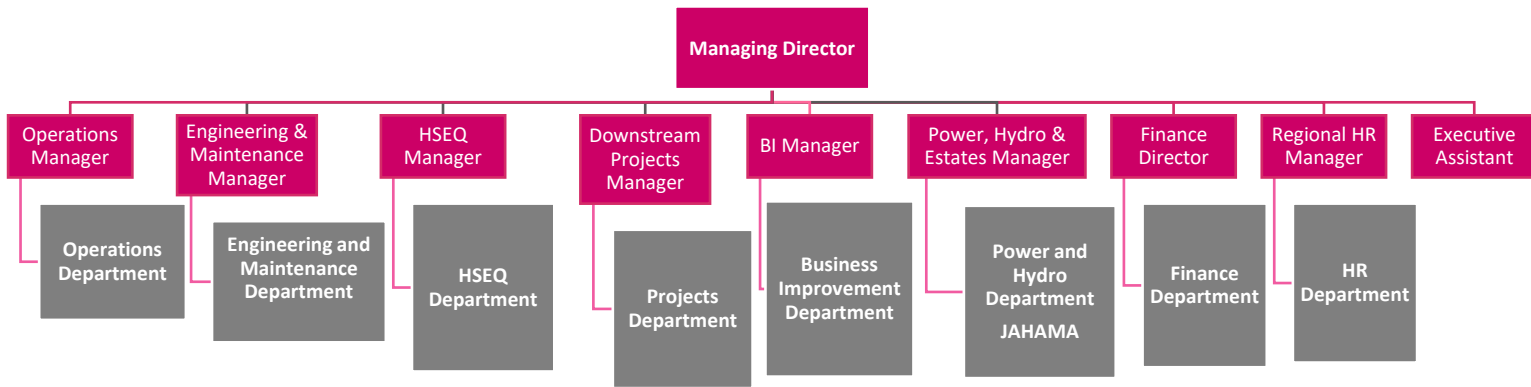


Figure 2, Lochaber Smelter management structure

ENVIRONMENTAL PERFORMANCE AND SUSTAINABILITY

STRATEGY

Alvance British Aluminium, alongside associated business units (SIMEC and JAHAMA) have sustainability at the heart of what they do, working as a singular unit to produce green aluminium and electricity, by harnessing the strength of Highland potential. Developing a sustainable future is a core value and drives decision making at all levels to ensure longevity of the business, while protecting our people and our environment.

The business demonstrates commitment to environmental improvements through minimising emissions from the aluminium production processes and operating as a responsible manufacturer in line with Best Available Techniques. The company has an environmental management system that has been certified to the International Management System Standard ISO14001 since 1997. This is an audited management system which identifies the environmental aspects of the site operations and the control measures implemented to manage impact on the environment.

Alvance British Aluminium is a regulated site, operating in line with a Pollution Prevention Control licence through the Scottish Environmental Protection Agency (SEPA), all emission limits have been set in line with the Non-ferrous Metals Industries Best Available Techniques (BAT) Conclusions as set out under Directive 2010/75/EU of the European Parliament and of the Council. The business has been operating with BAT limits since the issue of our updated PPC licence in June 2020, following an investment of approximately £1.8M in new and upgraded emissions abatement to achieve particulate emissions reductions of over 150%.

The businesses strategic objective for 2022 was to achieve a 2 point increase in our environmental rating from SEPA through proactive identification of emission improvement projects and elimination of environmental incidents.

AIMS

Alvance British Aluminium had a number of environmental goals for 2022:

- Appointment of an environmental specialist to support the HSEQ team in delivery of identification and implementation of environmental initiatives
- Upgrade of the Fume Treatment Plants Programmable Logic Controllers and reprogramming of logic to prevent downtime of environmentally critical abatement
- To conduct a Life Cycle Assessment of our major product lines to fully understand our environmental impacts
- Maintain management system accreditation for ISO 14001:2015

CURRENT CARBON AND ENERGY PERFORMANCE

CARBON

Lochaber smelter's carbon footprint for 2022 was **62422 tonnes of CO₂ equivalent (tCO₂e)**. This includes both scope 1* and 2 emissions, which are further broken down in Table 1 and Figure 3 below.

Table 1, Lochaber Smelter scope 1 and 2 emissions

Scope	Source	tCO ₂ e
Scope 1 – Direct Emissions	Carbon Anode	45486
	Anode effects	3097
	LPG	271
	Kerosene	1725
	Diesel	170
	Gas bottles	1
	Soda ash	8
Scope 2 – Electricity**	Imported electricity	11664

*Scope 3 (supply chain) emissions are currently being investigated, and will be present within the 2023 Sustainability Report.

**Electricity imports are based on the UK national average, however the business imports it’s electricity through the Wind Balancing Mechanism, details are publicly available on Elexon BMRS.

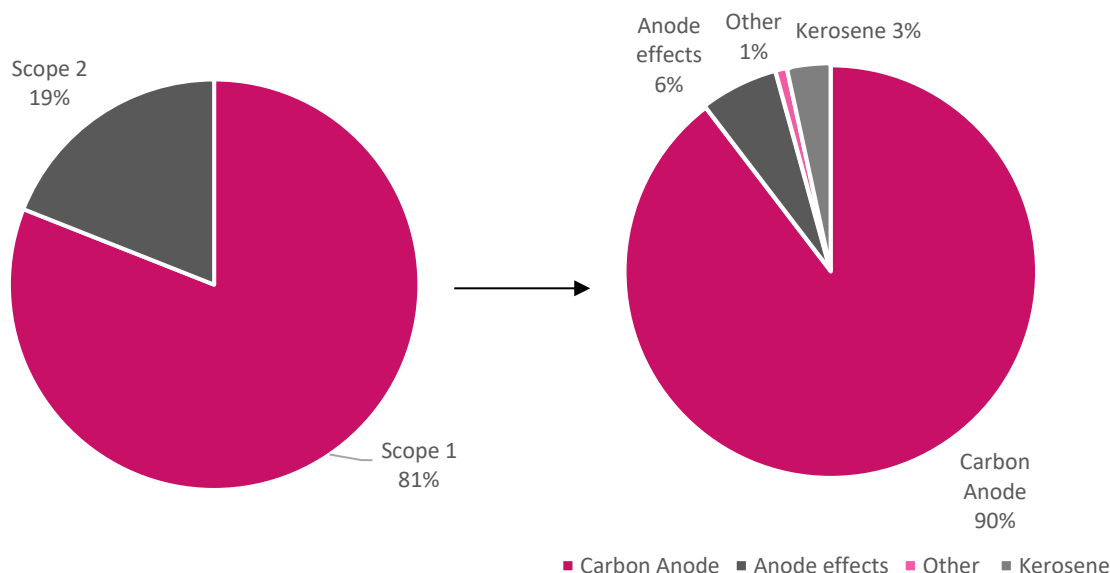


Figure 3, Breakdown of scope 1 emissions

The businesses CO₂ data is calculated and reported in accordance with the Greenhouse Gas Emissions Trading Scheme Order 2020, in compliance with the associated emissions permit. The permit covers direct emissions from Alvanee British Aluminium, with the exclusion of diesel used for site vehicles. The data presented in this report includes diesel usage from site vehicles along with all other direct emission sources* and has been deemed as Scope 1. Indirect GHG emissions (Scope 2) have been calculated using the BEIS Greenhouse Gas Conversion Factor for UK electricity for each year, imported electricity is metered by the business and was used to determine the annual import in MWh.

All GHG emissions are converted into tonnes of CO₂ equivalent (tCO₂e) for reporting purposes to allow comparison. Carbon anodes remain the largest input to the smelters carbon footprint, as they are over 95% carbon and a primary input to the smelting process.

*In 2023 the business is undertaking a full GHG emissions intensity review, including the determination of Scope 1-3 emissions. The scope 1 data above omits air conditioning units and fuel used by pool vehicles.

ENERGY

In 2022, the site’s total energy use was **457 643 MWh**. This includes the use of electricity, LPG and kerosene. Total MWh of each energy source is shown in Table 2.

Table 2, Lochaber Smelter energy breakdown

Source	Usage (MWh)
Electricity	449451.35
LPG	7021.42
Kerosene	1171.18

A breakdown of the site’s electricity mix is shown in Figure 4 to the right.

A total of 89% of the smelters electricity came from 100% renewable sources in 2022.

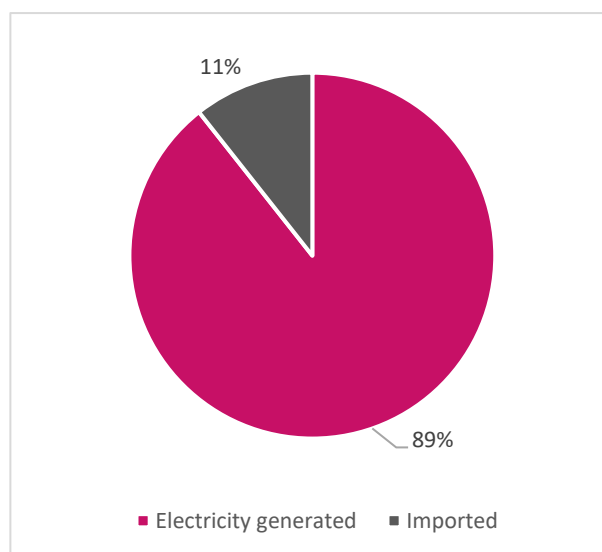


Figure 4, Lochaber smelter energy generated vs imported

METHODS OF ENVIRONMENTAL DATA COLLECTION

The site collates and monitors environmental data throughout the year, in line with both our PPC permit PPC/A/1157314, and our ISO:14001 accredited environmental management system.

Air emissions data is recorded through a series of continuous emissions monitors, as well as the stacks being sampled bi-annually by a third party. These sensors go through health checks and calibration every 6 months to ensure the readings are accurate. All waste data is entered into data collection spreadsheets following waste transfer and weigh-ins. Resource use data is entered into spreadsheets following deliveries, meter readings and stock level checks. Emissions to water data is inputted into spreadsheets following monthly sampling and analysis, carried out both internally and by a 3rd party.

All site data is recorded by the associated department, and at the end of every month it is collated and entered into the environmental reporting files, with summary emails being sent out following completion. At year end, these files are audited a verified by a third party as part of the UK Emissions Trading Scheme.

KPI PERFORMANCE

ENVIRONMENTAL INCIDENTS:

The company must report any environmental incidents to SEPA within 24 hours of the incident occurring, as a requirement of PPC permit PPC/A/1157314. Incidents are defined as breaches of the PPC permit conditions that may lead to pollution, e.g. reporting of spills, interruption to the operation of abatement equipment and releases above permit limits. An 'Incident prevention and Mitigation Plan' has been prepared and implemented on site to help manage the occurrence of these incidents.

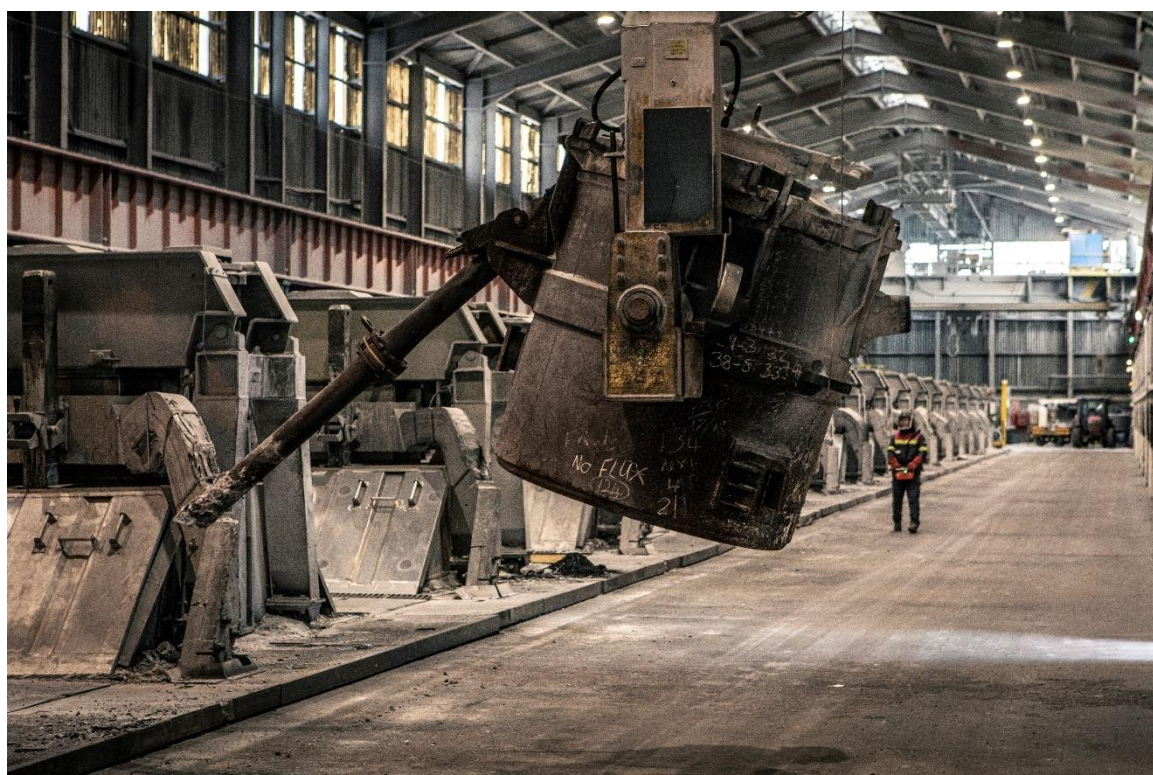
During 2022 a total of 5 such events were notified to SEPA, as follows:

- 1 x permit non-compliance, as a result of visible emissions from site
- 4 x near misses (not classed as permit non-compliance), as a result of loss of containment from plant abatement

An investigation was carried out following the permit non-compliance, where the root cause of the incident was identified and actions were put in place to stop the event occurring again.

Following the four near misses, we've conducted HAZOPs and Bowties to assess failure modes and develop robust actions to improve performance and reliability.

The environmental performance of the site is assessed annually by the senior management team as part of the Management Review process. The 2022 management review process has highlighted the challenges for 2023/24 and implemented a set of targets to continually improve performance. Actions for 2023-24 are mentioned throughout the environmental section, within the 'upcoming projects' section at the end of each topic.



AIR EMISSIONS:

2022 at a glance:

- No permit emission limits were breached, however there was 1 breach of visible emissions
- Mass emission levels dropped for all air pollutants
- Over 20% decrease in both PFC and PM emission intensity (kg/t Al)
- Carbon intensity for 2022 was 1.99 tCO₂e/t Al including energy imports

The substances released as air emission from the smelter are fluorides (F), particulate matter (PM), sulphur dioxide (SO₂), nitrogen oxides (NO_x), PFC's (CF₄ and C₂F₆) and CO₂ which was detailed previously in the report. Infrastructure to manage air emissions on site includes a gas treatment centre, composed of 3 stacks that treat emissions directly released by the smelting process, and another 12 stacks across site to capture emissions from supporting processes. Emission capture efficiency for the emissions released by the reduction cells is approximately **94%**.

Air emission limits and monitoring requirements have been set by SEPA, to ensure minimal environmental impact arises from the smelters activities. The site utilises continuous emissions monitors, and biannual stack sampling is carried out by 3rd party contractors on all 15 stacks to record the level of emission to atmosphere. The results of these are reported to SEPA both quarterly and annually, and if an exceedance should occur it is reported as an incident.

KPIs and Current performance:

Both greenhouse gas emissions and non-greenhouse gas emissions are shown in Tables 3 and 4 below.

Table 3, GHG Emissions at Lochaber Smelter for 2021 and 2022

Pollutant	2021	2022	Difference
PFCs (kg/t Al)	0.016	0.0125	-24.5%

Table 4, Non GHG emissions at Lochaber Smelter for 2021 and 2022

Pollutant	2021	2022	Difference
Fluoride (kg/t Al)	0.539	0.57	+5.8%
Particulate Matter (kg/t Al)	0.987	0.771	-24.6%
SO ₂ (kg/t Al)	12.573	12.672	+0.8%
NO _x (kg/t Al)	0.05	0.0517	+3.3%

The tables show that there has been an increase in NO_x, F and SO₂ released per tonne of aluminium produced in 2022 when compared to 2021 levels.

Mass emission levels were also recorded, and summarised in Table 5.

Table 5, Mass emission levels at Lochaber Smelter for 2021 and 2022

Pollutant	2021	2022	% Difference
NO _x (kg)	1863.072	1622.116	-13.8%
PFC's (te)	0.608	0.392	-43.2%
Fluoride (te)	20.287	17.878	-12.6%
Particulate Matter (te)	37.129	24.198	-42.2%
SO ₂ (te)	473.036	397.531	-17.3%

This table shows that all pollutants mass emission level has decreased, with the minimum decrease at 12.6% (Fluoride) and the maximum decrease at 43.2% (PFC's). Mass emission reduction in 2022 was largely attributed to reduced production levels.

Tonnes of CO₂e per tonne of aluminium is shown in Figure 5 below, showing the smelters carbon intensity over the last five years. The graph displays the results both with and without the carbon associated with imported power. Variations in power imports are due to a combination of factors, including the production levels of aluminium and the average rainfall levels for the associated year.

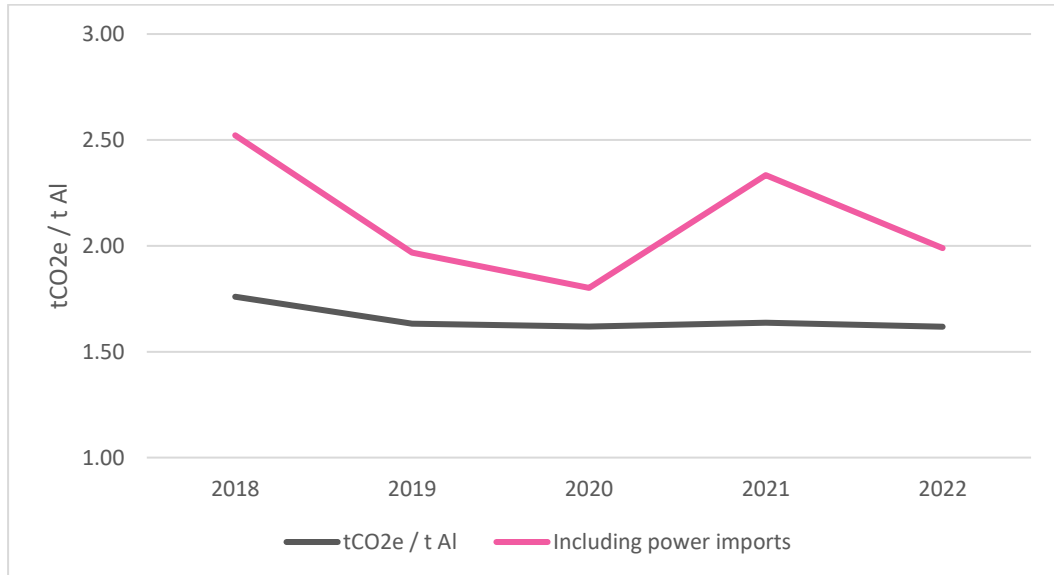


Figure 5, Carbon intensity at the Lochaber Smelter from 2018-2022, showing intensity both with and without power imports

In addition to the measured releases, the impact on the surrounding vegetation is also monitored as a requirement of PPC permit PPC/A/1157314. This is because fluoride can be absorbed by vegetation and cause visible damage. Samples of grass are collected monthly during the growing season from ten locations within a 5-mile radius of the smelter, then tested internally in the site lab. Results for both 2021 and 2022 grass are displayed in Figure 6, alongside the limit for the 12 month rolling average.

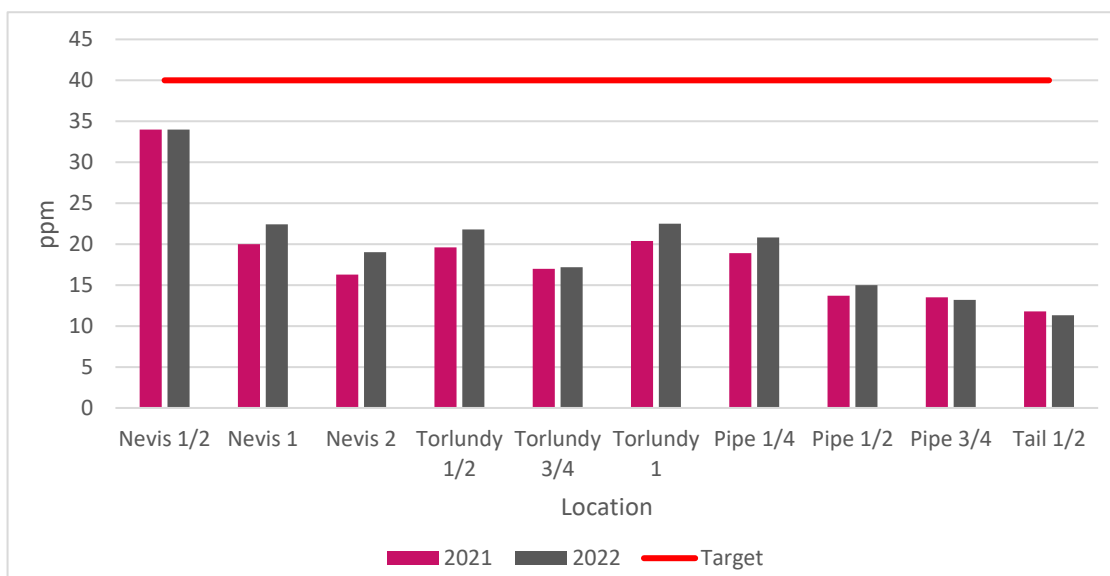


Figure 6, Levels of fluoride within herbage samples collected within a 5 mile radius of the smelter, for 2021 and 2022

This graph shows that although some results increased from 2021 levels, all fluoride levels within the grass remained below the target levels. We continue to monitor the levels each month and look for trends in the data.

UPCOMING PROJECTS

Improvement of rodding room abatement:

Following the implementation of new best available techniques and associated emission levels, the abatement within our rodding facility failed to meet the emission limit of $10\text{mg}/\text{m}^3$. As a result of this, the two current stacks will be upgraded to have larger fans and upgraded bag filters to deal with significantly more duty than the existing units. In addition to this, a third stack will be erected to segregate and capture aluminium dust, arising during stem brushing, into an ATEX rated bag extraction system.

WASTE MINIMISATION:

2022 at a glance:

- 86% of all waste produced was recycled/reused
- Total waste decreased by 1362.09te (~20%)
- 24% of waste produced was classed as hazardous
- 0.19t of waste was produced per tonne of Aluminium

The PPC permits for the Lochaber Smelter, PPC/A/1157314 and PPC/N/50007, require the site to record and submit the annual waste emissions each year. The report details the total waste generated from Lochaber Smelter and highlights the disposal method used (recycled or landfilled).

KPIs and Current performance:

The key performance indicators for waste on site are the total quantity of waste arising, the ratio of hazardous to non-hazardous waste and what proportion of waste was recycled.

Figure 7 below shows the total amount of waste from 2018-2022.

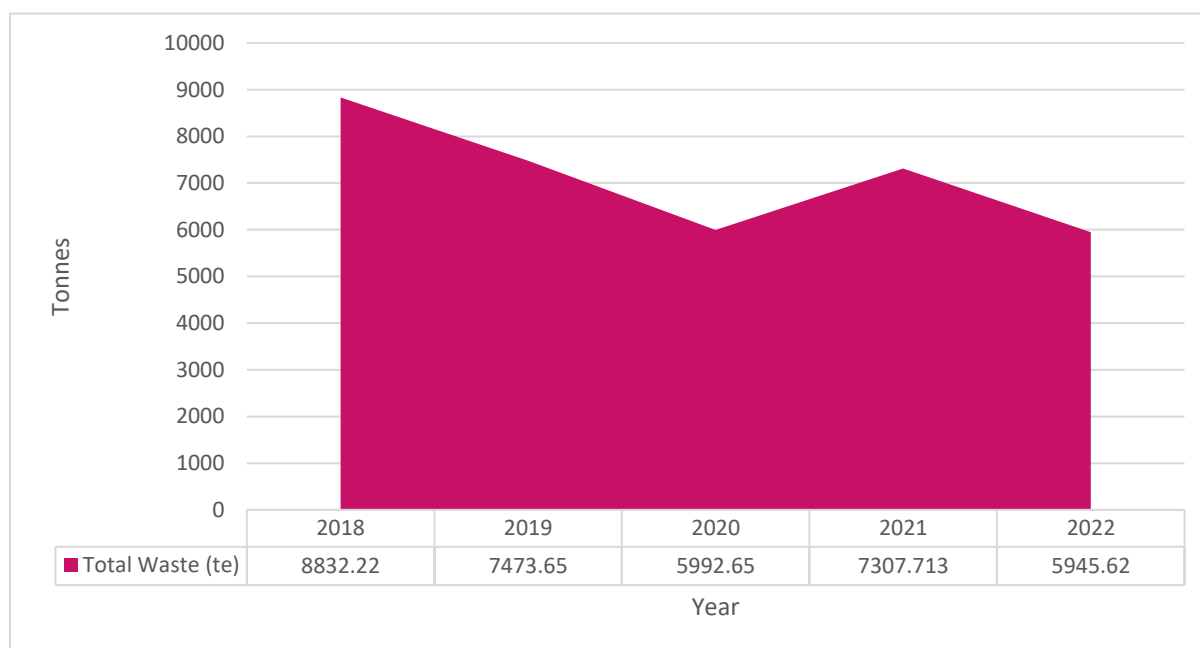


Figure 7, Total waste from the Lochaber Smelter from 2018-2022

Total site waste has decreased by 2886.6t between 2018 and 2022. The increase in waste in 2021 was due to the uplift of excess process materials following stockpiling in 2020. Stockpiling occurred due to loss of the sites recycling stream for SPL, and also operating on a slightly reduced production levels, there was therefore less demand for materials such as bath and cover material which are reused within the smelting process.

Of this total waste, Figure 8 shows how much was recycled vs landfilled for the past 5 years.

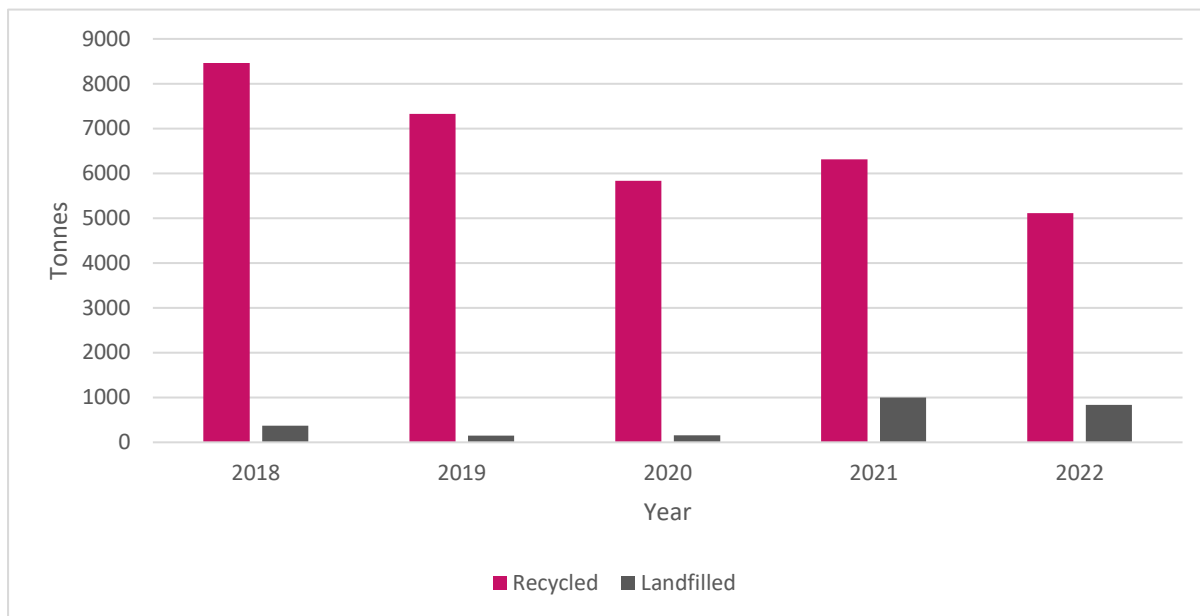


Figure 8, Landfilled Vs Recycled waste at Lochaber Smelter for the past 5 years

The slight increase in landfilled waste in 2021 and 2022 was a result of the closure of the UK business that treated SPL for reuse, and having a build-up of production materials following a reduction in pot load. This led to the site having to dispose of some process materials as on site storage reached capacity.

Hazardous vs non-hazardous waste from 2018-2023 is shown in Figure 9 below.

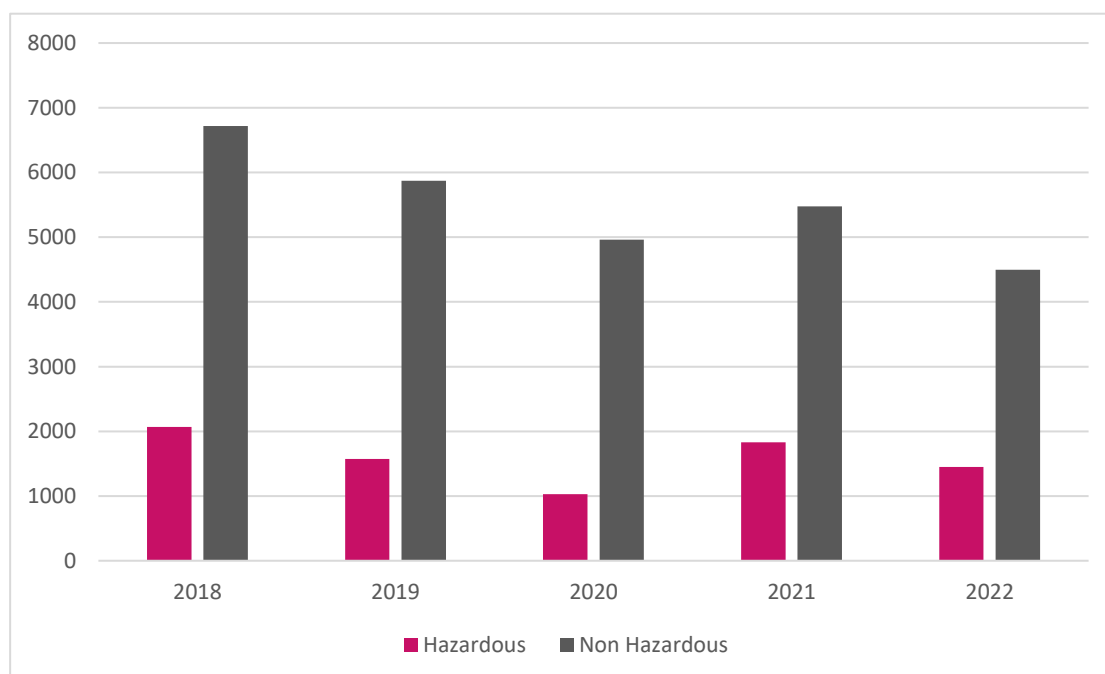


Figure 9, Hazardous vs Non-hazardous waste at Lochaber Smelter for the past 5 years

This demonstrates that the majority of the sites waste is classed as non-hazardous. The increase in hazardous waste for 2021/22 also represents the build-up of materials following operating on reduced production and loss of recycling streams for process materials.

UPCOMING PROJECTS

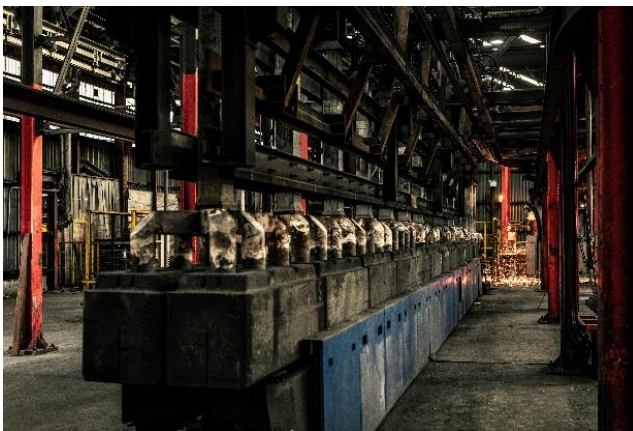
The business will continue to progress collaborative work with external companies to work toward an effective treatment process for Spent Pot Lining to prevent disposal and revert to reuse in relevant industries. A successful laboratory based trial was conducted in 2022 and in 2023 we will provide material for use in a pilot plant trial.

RESOURCE EFFICIENCY:

2022 at a glance:

- Energy intensity was 14.59MWhr/t Al
- Total site energy consumption decreased by 76,428.35MWhrs
- 88% of energy came from the sites hydroelectric scheme
- The site used 39% of its total water abstraction allowance

The site records resource utilisation data in line with the PPC permit PPC/A/1157314. It details the quantities of raw materials used at the Lochaber Smelter and the efficiency of energy, fuel and raw material consumption per tonne of aluminium produced each year. As well as this, the site continues to comply with UK ESOS, in order to reduce energy use and improve efficiency across site.



Raw materials

The two largest raw material inputs into the smelting process are alumina and carbon anodes.

In 2022 the site used 1.9t of alumina per tonne of hot metal, and 0.5t of carbon anode per tonne of hot metal.

These figures are consistent with the previous 5 years +/-0.01t.

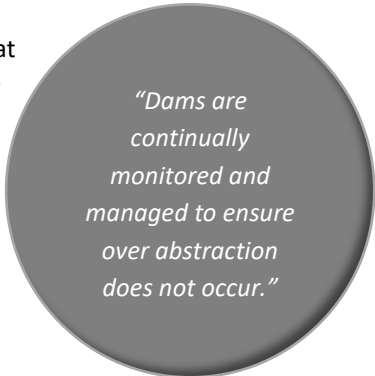
Water

The site records hydro-electric feed water, and data has been collected on site water use for utilities, sourced from Water Plus. All site water is monitored in line with the Water Management Plan.

In 2022, the site directed 2,232,228,316m³ of water through the turbines to generate renewable electricity for the smelter.

All water following hydro-electric generation is directed into a tailrace that intercepts with the River Lochy. Abstraction limits for the smelters hydro scheme are set by SEPA, therefore the dams are continually monitored and managed to ensure over abstraction does not occur.

The site also used approximately 13,408m³ of water for utilities in 2022.



Energy and fuel

In 2022 the site used 14.59MWhr of energy (electricity, LPG and kerosene) per tonne of hot metal produced. This in comparison to previous years is shown in Figure 10.

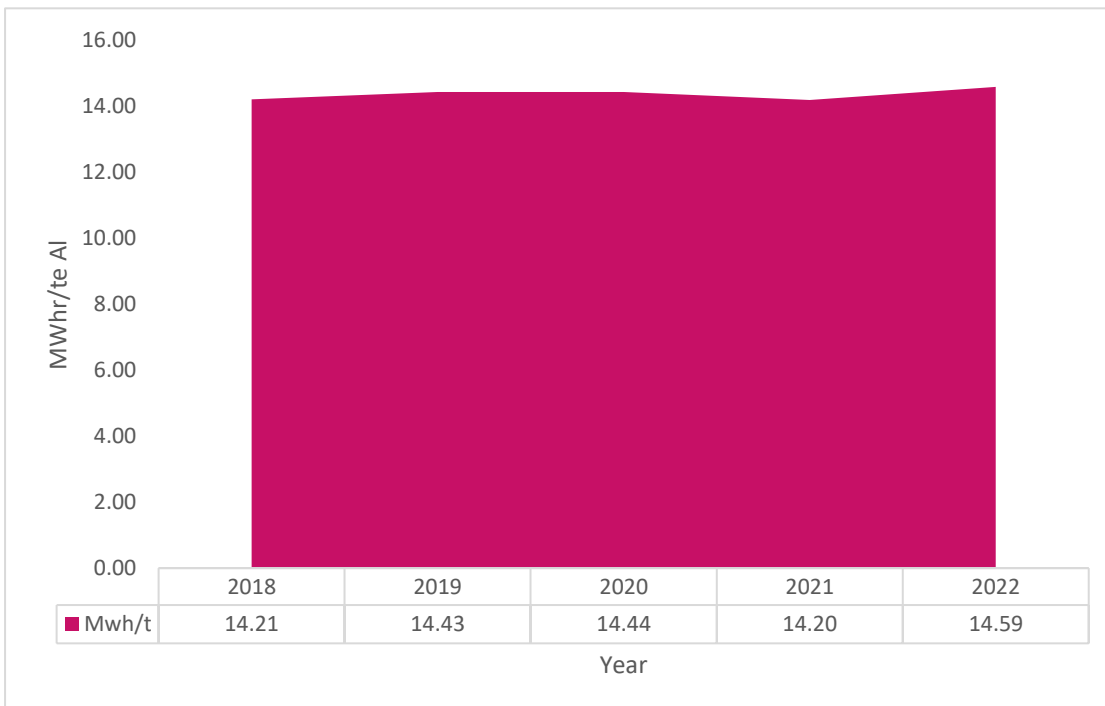


Figure 10, Energy intensity at the Lochaber Smelter for the past 5 years

This shows that since 2021, while total energy used decreased significantly, energy intensity has increased by 0.39MWhr/t Al. The slight increase in energy intensity is caused by very small inefficiencies of the site rectifiers working at a reduced capacity while operating at the lower production rates that reduced overall consumption.

This total energy is made up of on-site hydroelectric generation, imported electricity, LPG and Kerosene. The energy mix for 2022 is displayed in Figure 11 below.

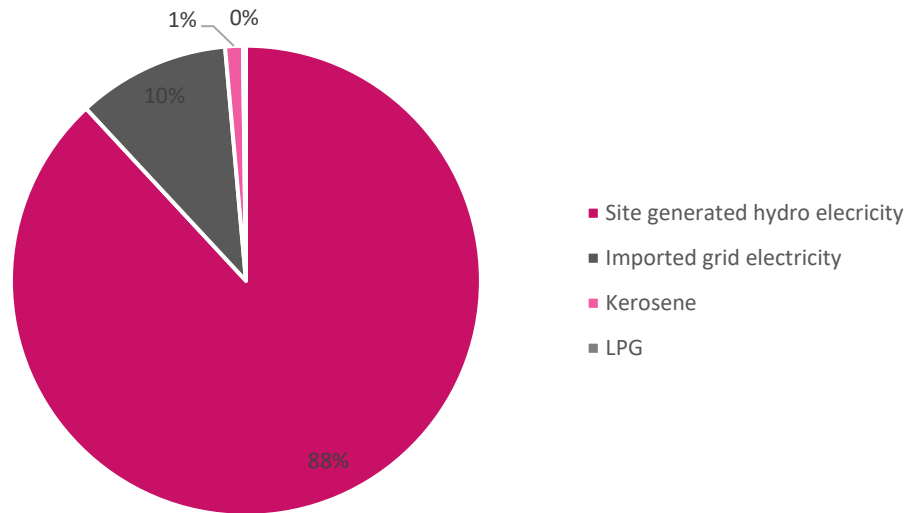


Figure 11, The energy mix in 2022 at the Lochaber Smelter

Figure 11 highlights that the majority of energy used on site comes from our own hydroelectric station. Imported electricity levels vary from year to year depending on the reservoir levels during the summer months, and therefore our capacity to generate electricity. This is shown in Figure 12 below, which shows the amount of imported electricity over the last 5 years.

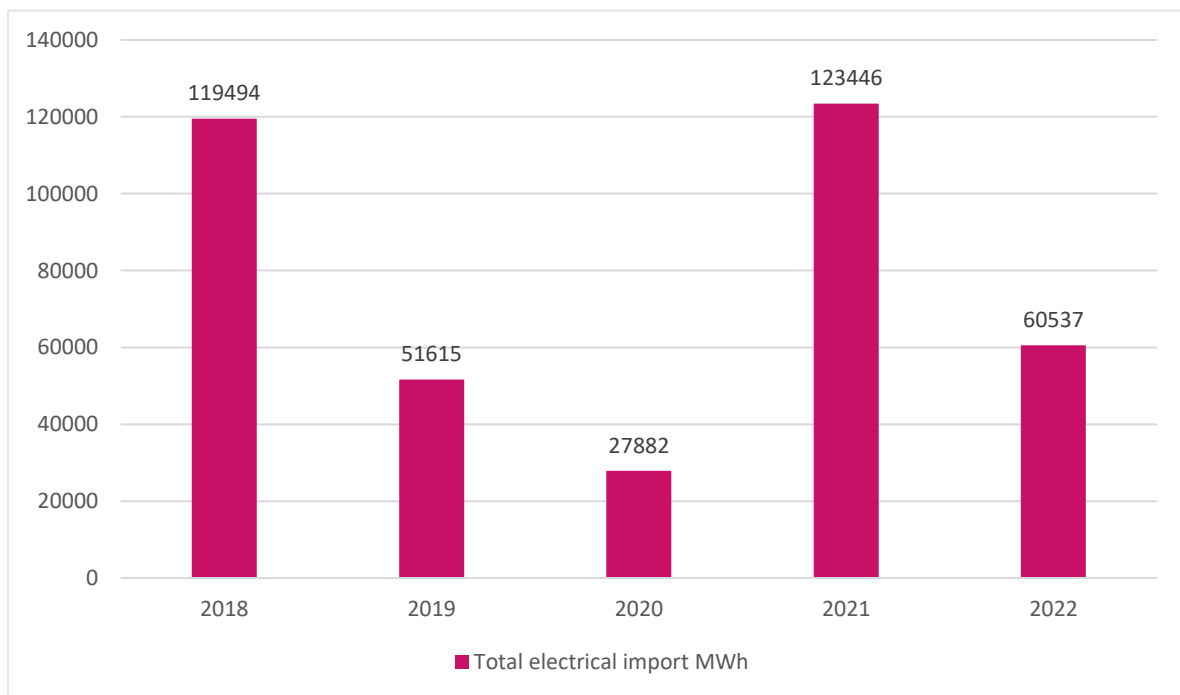


Figure 12, The amount of electricity imported from the grid to the Lochaber Smelter for the past 5 years

UPCOMING PROJECTS:

In 2023 the site will be carrying out an energy assessment in line with ESOS phase 3, to identify areas where energy use can be reduced through efficiency improving measures. As well as this, it is planned to increase water meterage across site, to give a greater insight as to where the most water is used and improve monitoring procedures.

EMISSIONS TO WATER:

2022 at a glance:

- No permit limits breached during monthly sampling
- 1 environmental incident
- Action plan created to improve east burn quality and reduce likelihood of incidents

The site (not including the hydroelectric scheme) has one associated discharge point, the East Burn. This is a small stream that sits to the north east of the smelter and eventually intercepts with the River Lochy. Discharges into this burn contain water that has been used for cooling in the casting process, along with site run off via the drainage network. The drainage network currently contains various silt and oil traps to minimise pollutants leaving site. The PPC permit for Lochaber Smelter contains conditions set by SEPA which relate to Controlled Water Discharge Conditions, stating that monthly sampling of the East Burn takes place to ensure pollutants are below SEPA’s defined limit. The limits are displayed alongside the KPI results below.

KPIs and Current performance:

The key performance indicators for emissions to water are levels of fluoride and suspended solids in the East burn, along with the burns BOD and pH.

Sampling of the East Burn is carried out at two locations, named W49 and W51. In 2022 we did not breach any pollutant limits in the East Burn during our monthly sampling campaigns, as summarised in the Figures 13, 14, 15 and 16 below.

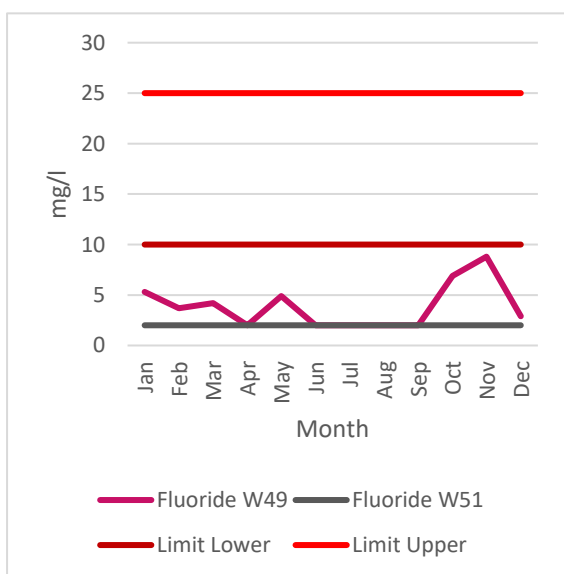


Figure 14, Fluoride levels within the East Burn and SEPA limit

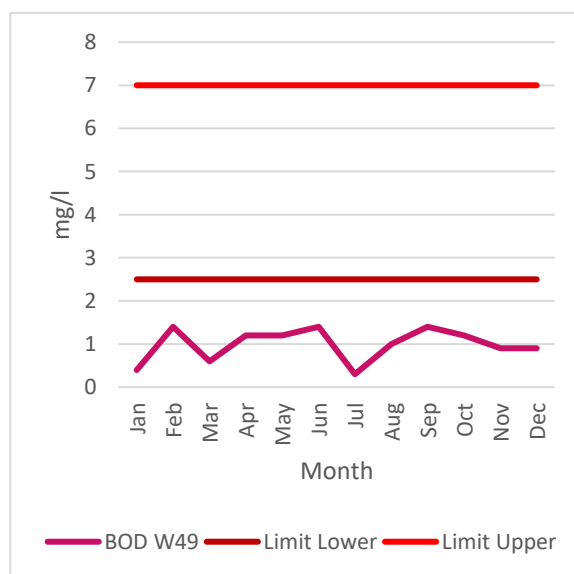


Figure 13, East burn’s BOD and SEPA limit (only sampled at W49)

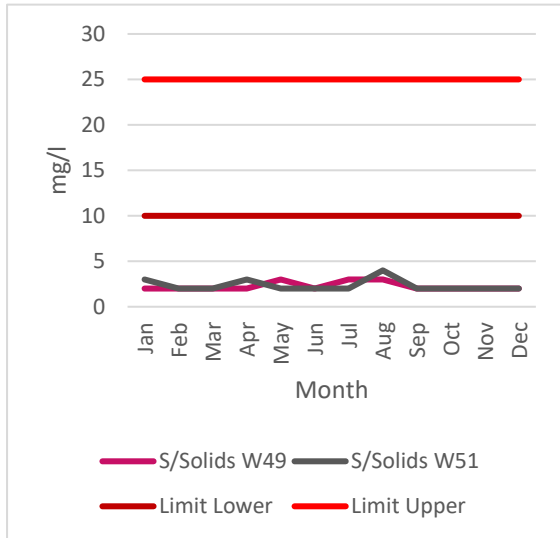


Figure 15, Suspended solids within the East Burn and SEPA limit

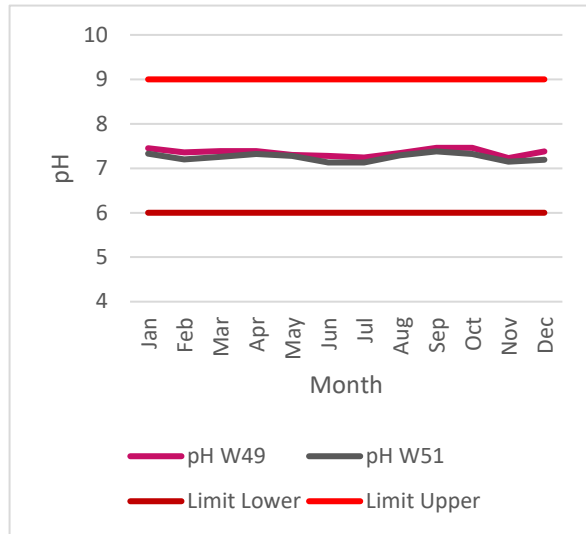


Figure 16, pH within the East Burn and limit boundary set by SEPA

UPCOMING PROJECTS

Although all monthly water samples complied with the sites permit, there was one environmental incident that led to pollutants washing into the East Burn. Following this, we have created an action plan to implement more effective sediment and pollutant trapping via a series of vortex separators placed at strategic locations across the site. The target is to have this project completed by the end of 2023, whereafter an assessment will be conducted to determine what/if any remediation work can be done in the East Burn to improve its ecological condition.

BIODIVERSITY NET GAIN:

Currently, a biodiversity assessment is being carried out by professional ecologists across the site's area of influence, encompassing both the smelter and hydro scheme. This assessment is being carried out to both identify the baseline for biodiversity in the area, and also identify future projects that will result in biodiversity net gain.

These actions will be detailed within a biodiversity management plan, a live document where progress on actions will be reported within the sustainability report from 2023 onwards. We look forward to sharing with you our plans on how to maximise biodiversity across our land from next year onwards.



HEALTH AND SAFETY PERFORMANCE

STRATEGY

Enabling performance:

We constantly review our processes, procedures, tools and performance to identify and correct deviations and eliminate waste.

By promoting organisational learning and identifying best practice we inform the continuous development of our policies and standards. We believe that everything can be improved, our holistic Health & Safety Assurance Program guides us to focus on our critical risks, critical safety behaviours and safety maturity as indicators to measure and inform our actions towards achieving world class safety outcomes.

Critical incident prevention:

We maintain a strong focus and discipline on identifying and allocating resources to manage low likelihood but high consequence events through our process safety management processes, fatal risk standards and our behavioural Life Savers.

Interdependent safety culture:

We empower our employees across our operations. to stop any job if it is not safe and work together to make it safe to proceed. We work to develop a safety culture of shared vigilance where everyone takes ownership of their own safety and that of their colleagues.

Fit for work & fit for life:

We are committed to increasing the health and wellness of our employees through our occupational health strategies, health surveillance and working to reduce/control physical and chemical exposures in the workplace.

AIMS

Alvance British Aluminium sets strategic Health and Safety objectives on an annual basis based on the previous year's performance and identified risk areas.

2022

1. Implement a robust major accident hazards safety program for site (COMAH, Process Safety, Emergency Response Planning)
 - Achieve timely closeout of COMAH phase milestones
 - Phase 1 - Improvement notice closeout (public record)
 - Phase 2 - Liaise with Competent Authority on the COMAH report pre-receipt and agree on report due date
 - Phase 3 – Submission of COMAH Safety Report in full on time to Competent Authority
2. Strategic initiative to improve safety performance to reduce Recordable Injury Frequency Rate (RIFR)
 - Be GFG Safe: Achieve Recordable Injury Frequency Rate (RIFR) 30% reduction

- Maintain external accreditations to the International Management System Standards (ISO) 45001:2018, 14001:2015 and 9001:2015

KPI PERFORMANCE

- The business effectively worked with the Competent Authority throughout 2022 to agree on roadmaps for all associated COMAH actions. The COMAH safety report had an agreed submission date for January 2023.
- Figure 17 below shows the businesses Injury Frequency Rates over a 24 month period from January 2021 – December 2022. At the beginning of 2022 the business had a Recordable Injury Frequency Rate (RIFR) of 5.21 and aimed for a 30% reduction to achieve a rate of less than 1.56 by the end of the calendar year.

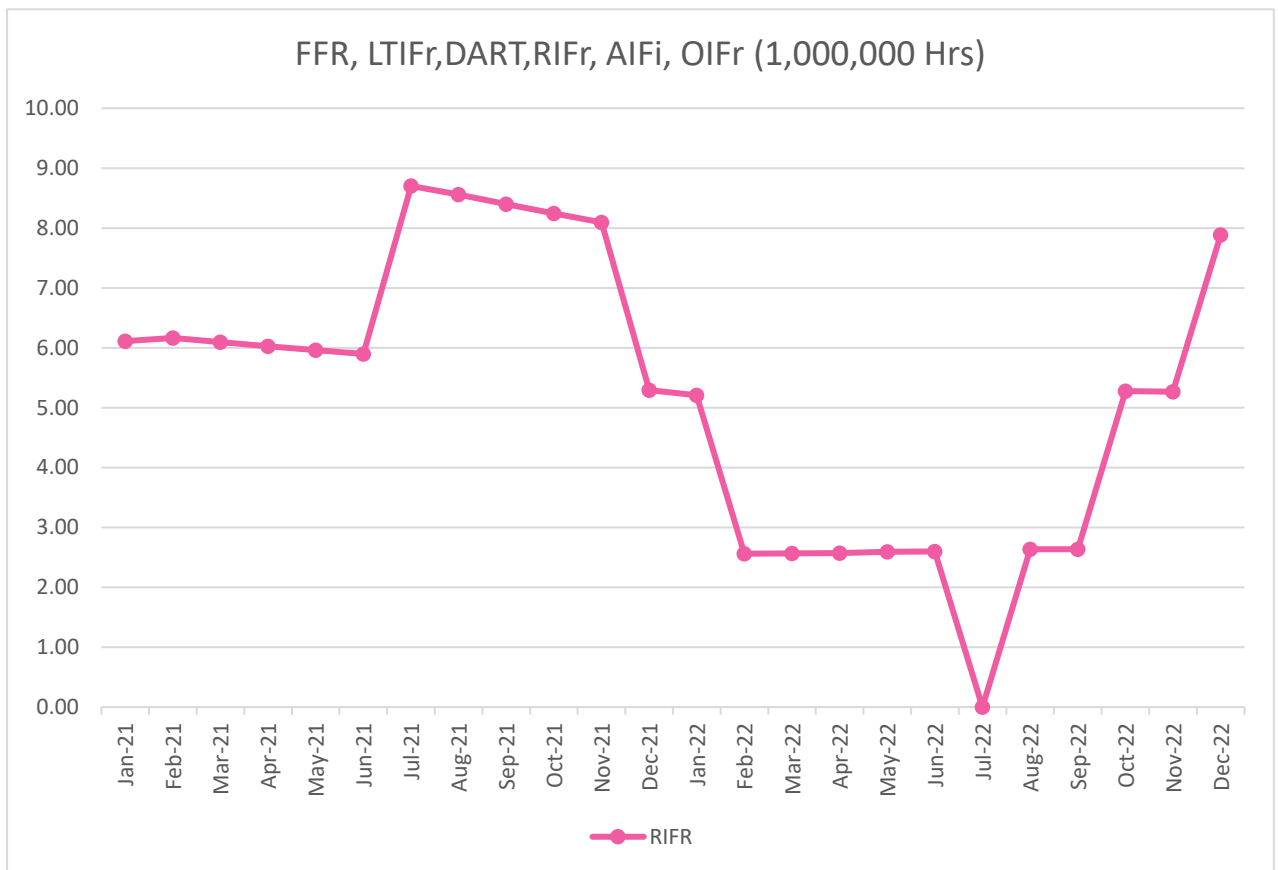


Figure 17, Business injury frequency rates for 2021 and 2022

Unfortunately, despite a positive start to the year with no injuries being recorded for the first 6 months, there were subsequently 3 events in the final 5 months of the year whereby our colleagues sustained injuries. While injury rates are a good indicator of trends in safety performance, it will always be unacceptable for individuals to go home in a worse condition than they arrived at work, and any injury is a saddening event on site. Thorough root cause analysis was conducted on the events with preventative actions put in place.

2 of the 3 injury events occurred within a short timeframe on site within a singular department, and Safety Timeouts were conducted with senior managers and all team members from the department to refocus everyone’s priorities on safety.

3. The business underwent 2 surveillance audits for ISO 45001:2018, 14001:2015 and 9001:2015, both of which were completed successfully with no non-conformances found on the business management system.

INCIDENT INVESTIGATION PROCESS

Investigation of health and safety incidents is focused on preventing their recurrence by identification of the events root cause and identification and implementation of preventative actions. This investigation process shall be led by line management and as a minimum, meet the requirements of the groups GFG General Standard for Incident Classification and Performance Reporting, which is implemented through the Alvanco British Aluminium procedure LOC-ELM-HSEQ-014 Incident and Action Management.

All incidents and near miss events are recorded alongside associated information and documentation on our EHS system, Cority. Incident investigations are completed based on their consequence and the reasonable possible outcome where there was no or a minor consequence and are supported by the HSEQ team to ensure consistency of root cause identification.



PEOPLE, HUMAN RESOURCES AND COMMUNITY RELATIONS

Alvance British aluminium is a business deeply rooted within the Lochaber community where we are situated. Having opened in 1929 our smelter is embedded within the areas local heritage, operating for previous generations before us. Now we are working to ensure the smelter moves forward sustainably for both current and future generations.



Our objectives, focused around people, are displayed below.



These objectives are further explained in the following sections.

ENGAGE, LISTEN AND ACT

The site utilises Your Voice/Peakon, an employee engagement platform, to ask for anonymous feedback for all staff on their role, their leader, their reward and their development annually. Through this process we regularly engage in two way dialogue, with the employee remaining anonymous but aware of the senior leader that they communicating with. Following the survey, action plans are produced and we share 'You said, we did' outcomes.

We also recognise Unite the Union and have a successful partnership approach to inform, consult and negotiate on behalf of the bargaining group. For staff, we have a Staff Consultation Committee who we consult with prior to changes to or the introduction of policies.

The below list details the variety of channels for communication and engagement:

- ‘Townhall’ meetings, led by the Managing Director, with an aim of improving transparency and understanding of business performance with employees
- Our internal intranet/People Hub website where we frequently ask for feedback and encourage questions
- A site suggestion box
- Weekly employee update newsletters sent to all staff via email
- Monthly health and safety briefings
- Performance one to one together with real time feedback

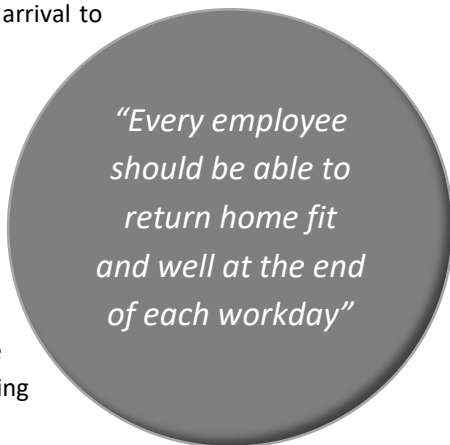
PHYSICAL SAFETY AND MENTAL WELLBEING

We support and promote the ‘GFG Be Safe’ strategy, which is underpinned by the belief that every employee should be able to return home fit and well at the end of each workday.

The site also carries out regular safety briefings, whilst reporting and rewarding against safety KPIs. Unite Safety Reps support the safety culture, and we actively train people in IOSH, NEBOSH and Process Safety. We have a comprehensive safety induction for employees, contractors and visitors on arrival to the site, and complete approximately 45-50 safety interactions each week.

The HR People Hub operates an Employee Assistance Programme with access to multiple local and national support options. Employees are also made aware of details for confidential counsellors alongside how to access these services.

Leadership training focuses on how to initiate conversations and then signpost people to the help and support they need. As well as this, our Astute internal eLearning platform requires employees to complete various training courses related to physical and mental wellbeing.



ATTRACT, DEVELOP AND RETAIN TALENT

Due to our location, attraction and retention of employees is very important. We have a fair and transparent Recruitment Policy, Learning & Development Policy and Talent and Succession Planning Programme – all of which are underpinned by Equality and Inclusion. Currently, 16% of the workforce are female.

We aim to take on apprentices whenever the opportunity arises, with a new apprentice being hired in 2022.

We are passionate about developing the next generation of skilled workers, and therefore provide both modern and graduate apprenticeships to enable people to gain formal qualifications whilst working at the smelter.

Identifying talent, critical roles and building succession plans allows us to mitigate the risk of having vacancies in key roles.



COMMUNITY, SCHOOLS AND CHARITIES

At Alvance, we recognise that the success of the smelter is linked to the health and well-being of the local community. That is why we actively engage with the community throughout the year through various initiatives and activities. A summary of our work within the community is listed below:

Schools:

- We work closely with local schools, colleges and universities to have strategic partnerships to encourage and promote meaningful employer and educational engagement, through the curriculum in science, technology, engineering and mathematics (STEM)
- We actively took part in National Apprenticeship Week 2022 by presenting to Lochaber High School through various employees about their route into and experience within the smelter, and what their job roles entail
- During the festive period we host a long standing children's Christmas party, ensuring the whole family can get involved in the festivities with the smelter

Communities:

- We recruit from the local community for apprenticeships and promote on-going Education & Training to degree level to encourage engagement within our longer-term recruitment planning
- We host recruitment open days and tours for the local community
- We support major sporting events on the estates and leisure pursuits from skiing to extreme mountain biking and climbing together with agriculture and country pursuits.
- We hosted a family fun day
- Further indirect employment supported within the local community – engineering services, small businesses, hotels and accommodation

Charities:

- We have a Social Committee on site that organise and run a variety of both fun and social activities for staff, raising money for local charities – in 2022 our chosen charities were Care Lochaber and Love in a box Lochaber
- Fundraising on the run up to the festive period to donate a significant amount of food, gifts and money to Lochaber Foodbank

REWARD AND RECOGNITION

We offer comprehensive benefits for all employees, including basic salary, shift allowances, company and personal bonuses, enhanced pension contributions, healthcare, cycle to work and an inclusive rewards programme offering discounts at a wide variety of stores and services.

COMPLIANCE

We operate within the GFG Code of Conduct and Alvanco Business Working Principles, which include Anti Bribery and Corruption, Whistleblowing and Equality and Inclusion. To ensure the principles are understood by all staff, we use the astute eLearning platform to deliver internal training. All staff complete training on multiple topics surrounding central themes such as health and wellbeing, the environment and corruption. The site also has internal policies that are readily available for all employees on the sites internal intranet, including policy 007 on Anti-Slavery, and policy 016 on Equality, Diversity and Inclusion.

BUSINESS CONTINUITY

SUPPLY CHAIN RESILIENCE

The business has committed to obtaining accreditation to the V3 Performance Standard of the Aluminium Stewardship Initiative. As part of this body of the work, we are currently reviewing and updating our supply chain procedures and policies to align with the Responsible Sourcing criteria. At Alvalance, we have always undergone thorough pre-qualifications of suppliers whom we use to procure goods and services, to ensure that there is minimal risk of our activities having negative impacts through the supply chain, and so to protect the business against the risks associated with disruptions.

We look forward to sharing more information in 2023 as we develop our website to include our policies.

ALUMINIUM RECYCLING AND BILLET CASTING FACILITY



ALVANCE British Aluminium plan to construct a new Aluminium Recycling and Billet Casting Facility adjacent to their existing Aluminium Smelter at their site in Fort William, Lochaber. The new facility shall utilise the Aluminium produced by the smelter (primary Aluminium) and supplement it with recycled scrap Aluminium (secondary Aluminium) to increase the output from Lochaber from circa 48ktpa to circa 100ktpa. The utilisation of the recycled scrap will also allow the Lochaber smelter to reduce its carbon output per ton of metal produced from the facility.

The new facility shall utilise domestic scrap aluminium that is currently exported from the UK, and develop Fort William's position as a leading international producer of low-carbon aluminium.

The facility shall be designed using Best Available Techniques (BAT) practices for the main process equipment and associated auxiliary equipment design and construction. This means we shall be utilising the available techniques which are best for preventing or minimising emissions and impacts on the environment.

The main process carried out in the facility will be the melting and casting of the primary aluminium (from the Smelter) and the secondary aluminium (recycled material) to produce billets of various specifications, diameters and lengths. The facility will include a Vertical Direct Chill (VDC) casting pit approximately 25m depth and 7m x 7m wide, melting furnaces, holding furnaces, secondary (or scrap) metal storage areas, fume abatement systems, and associated auxiliary plant equipment.

The new facility shall have a building footprint of 12,245m² (approx. 185m x 75m). Associated development surrounding the facility and covering an area of approximately 3.69ha, including:

- a 10,200m² hard standing area south of the facility, to be used to store final products;
- a new access road around the plant;
- required drainage and Sustainable Urban Drainage System (SuDS);
- landscaping and planting – primarily associated with reinstatement of disturbed ground and the SuDS pond;
- Liquefied Petroleum Gas (LPG) / Substitute Natural Gas (SNG) gas storage infrastructure; and
- associated oxygen, nitrogen and argon systems.



“The new facility shall utilise domestic scrap aluminium that is currently exported from the UK, and develop Fort William’s position as a leading international producer of low-carbon aluminium”

The facility will operate continuously, day and night, for approximately 330 days of the year, with the remaining days of the year being taken up with planned maintenance activities to help ensure that the equipment is running correctly and efficiently.

The proposed development is set to create 70 direct jobs, whilst also securing the existing direct and indirect jobs associated with the existing Lochaber Smelter.

Construction of the new facility is due to commence quarter 3 2023 and is expected to take 2 years to complete, with the first billet sales planned for quarter 4 2025.

The unique set-up of the new Aluminium Recycling Plant next to the existing hydro-powered primary smelter and by utilising a high content of scrap in the production process will ensure the billets produced at Lochaber will have one of the lowest CO₂ footprints in the World.

ALVANCE HIGH-LEVEL ACCIDENT HAZARD PREVENTION AND MITIGATION

In compliance with the standards and guidelines set forth by the Aluminium Stewardship Initiative (ASI), ALVANCE has undertaken comprehensive hazard identification and risk mitigation of the site. We aim to continually enhance our occupational health, safety, environmental and process safety performance, taking a proactive approach to identifying, assessing, and controlling potential hazards.

One of the high-level hazards identified within our operations is the potential for a Liquefied Propane Gas (LPG) explosion or fire on site. In line with the Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR), we have implemented rigorous safety protocols and procedures in conjunction with effective safety equipment in line with HSE guidance to ensure safe storage and use of LPG on site. The protocols include regular equipment inspection, safety training for staff handling LPG, and emergency response plans in case of an incident.

Another significant hazard is the uncontrolled release of hydrogen fluoride from the potline due to a complete functional operability failure within the Gas Treatment Centre’s (GTC) local exhaust ventilation system. To mitigate this risk and abide by the Control of Major Accident Hazards (COMAH) Regulations 2015, we maintain stringent checks on our ventilation system and have robust safety measures to handle any possible failures with the sites GTC. Any operational faults in the function of the GTC’s main pot extraction fans are promptly detected and addressed to prevent prolonged uncontrolled potline releases.

Other high-level hazards have also been identified and adequate control system set up. These hazards include but are not limited to loss of electrical power to the potline or site, open circuits, water-metal explosions, and major weather events. Our facility has robust backup power supplies and power restoration procedures to prevent prolonged loss of power to the potline or site. Additionally, we have isolation protocols and automatic open circuit protection in our pot control and rectifier systems for dealing with possible open circuit situations furthermore we have specialised training for staff to manage water-metal interaction situations safely.

To mitigate the risk of major weather events, we have developed comprehensive disaster response plans. These include provisions for staff safety, maintaining operational continuity, and safeguarding infrastructure. Our team regularly reviews and updates these plans based on the latest weather predictions and risk assessment methods.

These hazards and their associated mitigation measures have been extensively covered in our continuously updated Control of Major Accident Hazards (COMAH) Safety Report. We uphold a policy of transparency and rigorous standards, constantly working to improve our safety performance in all areas of operation.

At ALVANCE, commitment to safety and sustainability is at the heart of our operations. We strive not only to meet the ASI's requirements but to exceed them whenever possible, providing a safe and sustainable environment for our employees, our community, and our stakeholders.

“ALVANCE has undertaken comprehensive hazard identification and risk mitigation of the site”

