# Environmental Declaration 2021


## Validation of results 2021

**EMAS Registry No: ES-CYL-000034**

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# 1. Description of the organisation and the integrated management system

### 1.1. Description of the organisation and its activities, products and services.

Our work centre, Befesa Aluminio CT Valladolid (CNAE-3832), has the scope of "Recycling, recovery and valorisation of waste from primary and secondary aluminium production".

From the reception of industrial waste, through storage and subsequent treatment, the minimisation of the possible environmental effects or impacts that our process could generate is taken into account at all times.

We are located in the municipality of Valladolid. Specifically, our facility is located about 5 km from the city centre of Valladolid and occupies an approximate surface area of 106,700 $m^2$ .

Befesa Aluminio CT Valladolid's recycling and recovery processes have been considered as best available technologies (BAT) within the European Commission's BREF (Best available techniques Reference) documents for non-ferrous metallurgy.

The activities of Befesa Aluminio CT Valladolid are divided into four processes, which are described below:

**Process 1: Obtaining aluminium concentrates by physico-chemical treatment.**

The recycling process operated by Befesa Aluminio CT Valladolid allows the recovery of free metal and fluxing salts and the formation of inert products, mainly composed of aluminium oxide.

The process consists of a mechanical treatment of crushing and separation of metals, reaction of the hazardous components and aqueous dissolution of the salts, filtering of the inertised material and subsequent crystallisation of the salts.

The phases of the production process are:

- Grinding: The purpose of this treatment is, on the one hand, the extraction of the metallic aluminium and, on the other hand, the reduction of the particle size for a perfect reaction of the reactive components and the dissolution of the salts contained.

It consists of breaking the large blocks by means of a hydraulic hammer and then passing them to a mill that allows a maximum block size of 750 kg to enter. Once the material has been crushed, it passes through a screen, where a first product (aluminium concentrate) is obtained. The rest is reduced to powder and sent to the next stage.

- Dissolution-Reaction: The material (powder) obtained from grinding or received already ground is mixed with water to dissolve the salts. Dissolution is carried out with part of the condensate from crystallisation and with the filtrate from the alumina concentrate.

The mixture is pumped into reactors where the aluminous compounds react by maintaining the temperature. The gases produced in the reactors are incinerated in the flare.

The pulp is sent to decanters that will separate the insoluble oxides from the brine by adding a flocculant. The reacted oxides are washed in belt filters. The filtrate water is recirculated for reuse.

The cakes obtained are sent to the final product warehouse, obtaining the product "Paval" which is used in ceramic and refractory products, rockwool, etc.

The brine obtained is purified in a clarifier before passing to the next stage.

- Drying: El Paval can be dried using a rotary dryer. At the end of 2020, a new rotary dryer is installed as a result of the publication in October 2020 of the new integrated environmental authorisation, which includes the non-substantial modification no. 17 for adaptation to the best available techniques and whose start-up takes place in 2021.

- Crystallisation: In order to separate the salts from the water contained in the brine obtained in the previous phase, the vapours are evaporated and subsequently condensed. This produces a salt, a mixture of

NaCl and KCl, and condensates that are reused in the process.

A natural gas boiler is used for steam production.

- Gas scrubbing: New installation commissioned at the end of 2020. The air with $NH_3$ , coming from the drying process as well as the air coming from the extraction of the production hall, is taken to the gas scrubbers where it is scrubbed with $H_2SO_4$ , obtaining $(NH_4)_2SO_4$ .

**Process 2: Milling and segregation of aluminium dross.**

The slag from the aluminium smelting furnaces is subjected to a grinding and screening process in order to separate the metallic aluminium (aluminium concentrates) from the oxides, which are treated in the process 1.


**Process 3: Grinding and segregation of aluminium scrap.**

The purpose of this treatment is the separation of the metallic aluminium contained in aluminium scrap. Disused installation.

## Process 4: Storage of untreated waste.

The raw materials processed in tonnes over the last three years are as follows:

| Treated material (t) | EWL code | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| Salt slag (P1) | 100.308 | 125.665 | 124.098 | 133.505 |
| SPL (P1) | 161.101/161.103 | 12.859 | 10.433 | 11.103 |
| Aluminium dross powder (P1) | 100.321 | 1.191 | 427 | 0 |
| Filter dust (P1) | 100.319 | 0 | 0 | 0 |
| Foundry sands (P1) | 101.106 | 0 | 0 | 0 |
| Aluminium scrap (P4) | 120.103<br>160.118<br>191.203 | 338 | 205 | |
| Aluminium dross (P2) | 100.304 | 6.664 | 1.040 | 65 |
| Totals | | 146.716 | 136.203 | 144.801 |
| Note: P=process | | | | |

The list of products obtained in tonnes over the last three years is as follows:

| Product obtained (t and %*) | 2019 | 2020 | 2021 |
|---|---|---|---|
| Salt | 46.151t (37%) | 41.279t (33%) | 41.989 (29%) |
| Paval | 110.963t (79%) | 107.610t (80%) | 113.048 (78%) |
| Aluminium concentrate | 11.968t (9%) | 10.994t (9%) | 11.993 (8%) |
| Ammonium sulphate | NA | NA | 10.661 (7%) |
| Totals | 169.082 | 159.883 | 177.691 |

*The total sum of percentages is greater than 100% due to moisture and generation of new materials (hydrated oxides, etc.).

### 1.2. Description of Befesa as a group.

Befesa is a service company specialising in the recycling of steel dust, salt slag and aluminium waste, as well as logistics and other related industrial services. It offers environmental services specialising in the integral management of industrial waste from the steel and aluminium industries. Its activity is divided into two business units: Steel Dust Recycling Services and Aluminium Salt Slag Recycling Services.


Befesa Servicios de Reciclaje de Escorias Salinas de Aluminio is divided into three services that carry out different but highly complementary activities:

- Recycling services for salt slag, Spent Pot Lining (SPL), spent refractories, and other wastes.
- Second-melting aluminium alloy processing services from scrap and metal-containing waste to produce custom alloys
- Technology and sale of specialised machinery.

### 1.3. Description of the Integrated Management System.

Befesa Aluminio CT Valladolid has an Integrated Environmental Management System (SIGMA), certified by Bureau Veritas according to the requirements of the UNE-EN ISO 14001:2015 standard and the European Regulation no. 1221/2009 (EMAS) updated by Regulation (EU) 2017/1505 and Regulation (EU) 2018/2026, which is the tool used to implement and put the Environmental Policy into practice, and which enables it to internally manage environmental aspects, as well as to define its environmental objectives.

The documentation of the SIGMA provides an understanding of the organisation, roles and responsibilities within Befesa Aluminio CT Valladolid. There is a Management Manual that describes the interrelationships of the elements of the SIGMA, documents key roles and responsibilities and provides guidance on reference documentation. The manual provides an overview of the management and describes the basic requirements of the system. These requirements are developed through procedures, instructions and specifications for all activities that require them.

## 2. Integrated management policy and organisational structure

The company management defines an integrated policy on health and safety, quality, environment and energy efficiency in which it formally describes the guidelines and commitments adopted by Befesa. This policy is reviewed periodically on the basis of changes in the organisation, legislation, interested parties, etc. The last review and modification of the policy was in October 2021.



secondary aluminium industry, Befesa División Escorias Salinas, which includes its recycling plants in Valladolid (Spain), Lünen and Hannover (Germany), focuses its activity on the pursuit of excellence through safe, efficient and effective management that contributes to sustainable development.

The Management of Befesa División Escorias Salinas is aware that the key factor for the success of its operations is the satisfaction of all relevant interested parties (customers, direct and indirect employees (contractors and subcontractors), authorities and legislators, social environment, etc.) and in accordance with this, adopts the following policy that establishes the following commitments:

1. **Commitment to health and safety, prevention of occupational risks and improvement of working conditions:** Befesa División Escorias Salinas ensures the occupational health and safety of all personnel (direct and indirect employees) through compliance with legal requirements and other requirements applicable to the health and safety of workers, applying improvements to eradicate unsafe acts and conditions and eliminating risks, through a zero accident policy, with employee participation being an essential element in the prevention of occupational risks and the promotion of health. To this end, Befesa has implemented an occupational health and safety management system that complies with the requirements of ISO 45001:2018.
2. **Commitment to a suitable working climate, equal opportunities in the workplace, development of skills and reconciliation of family and work life:** Befesa División Escorias Salinas promotes equal opportunities and training to increase the skills of its workers, and fosters a climate of trust by complying with the rules, analysing the needs and expectations of workers and establishing the highest standards in labour relations, based on integrity, responsibility and loyalty. Befesa has an internal management procedure for sick leave in order to eliminate the causes of non-attendance at work and to guarantee the right to active work of all employees.
3. **Commitment to the quality of products and services:** Befesa División Escorias salinas is committed to offering its customers products and services with the required quality, focused on continuous improvement, in accordance with the company's strategic objectives, taking into account the context of the organisation and the needs and expectations of customers, assessing risks and implementing actions to eliminate or reduce them. For this reason, Befesa has implemented a quality management system certified according to ISO 9001:2015.
4. **Commitment to the protection and defence of the environment:** Befesa División Escorias Salinas maintains a commitment to the prevention of pollution and the preservation of the environment, complying with current legislation and other commitments that Befesa may subscribe to, in accordance with the context of the organisation and considering its activities, products and services throughout the life cycle. Therefore, it maintains a system of identification, evaluation and reduction of environmental impacts, promoting a rational use of natural resources and the reduction in the generation of waste, the circular economy, the reduction of GHG emissions and continuous improvement. Thus, Befesa has implemented an

environmental management system based on ISO 14001:2015 and calculates and evaluates its carbon footprint in accordance with the ISO 14064 standard.

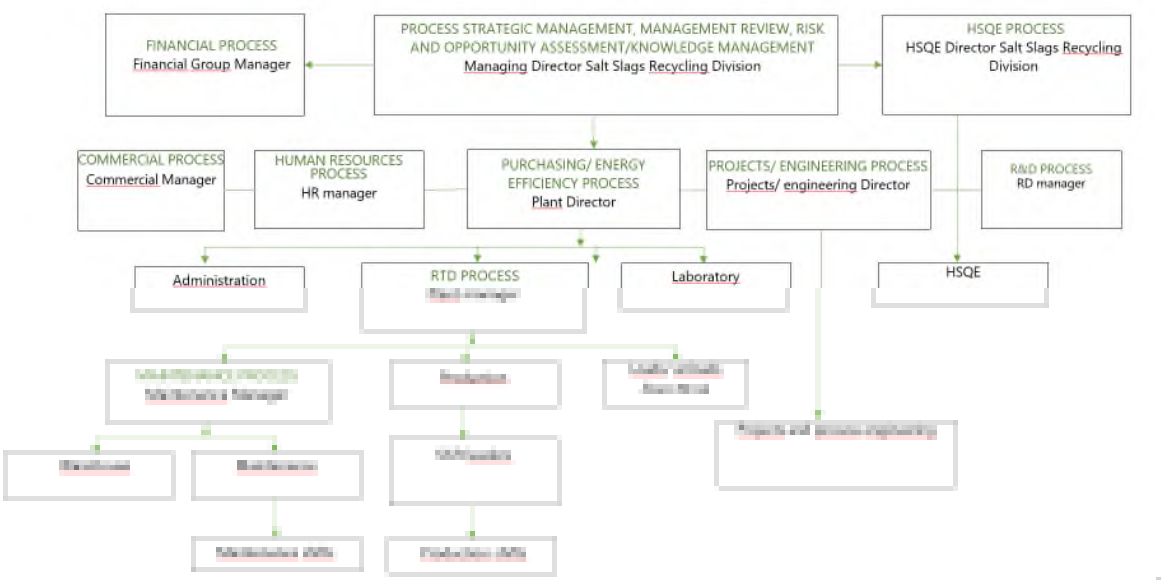
5. **Commitment to energy efficiency and energy management:** Befesa División Escorias Salinas is aware of the importance of efficient energy management, maintaining a maximum efficiency objective. For this reason, Befesa maintains an energy efficiency management system that ensures the continuous improvement of energy performance, including energy efficiency, energy use and energy consumption, establishing continuous improvement objectives, ensuring the availability of the information and resources necessary to achieve them, integrating energy performance in strategic decisions and complying with legal requirements and other requirements associated with energy and efficiency. Likewise, Befesa Escorias Salinas promotes the acquisition of energy efficient products and services. This behaviour is endorsed by the ISO 50001:2018 certification.
6. **Commitment to the confidential nature of the information and the protection and appropriate treatment of personal data:** Befesa División Escorias Salinas, taking the confidential nature of the information as a basis, promotes the security of legally protected data and the proper use of IT tools, complying with the guidelines established by the Befesa Group, promoting the rationalisation, optimisation and simplification of IT management, as well as the continuous improvement of the effectiveness and efficiency of the information systems.
7. **Legal commitment, risk reduction and continuous improvement:** Befesa División Escorias Salinas is committed to complying with legal requirements and other subscribed requirements, the identification, evaluation and elimination or reduction of identified risks, the prevention of negative effects, continuous improvement, transparency, consideration of the needs and expectations of relevant interested parties, taking into account the context and nature of the organisation in establishing its strategy.

The Management of Befesa División Escorias Salinas will ensure that this policy is maintained and applied and that it is understood and accepted by all interested parties.
This policy will be distributed to all employees and explained directly.
This policy will be made available to any interested party upon request.

Carlos Ruiz de Veye, Director General

Valladolid/ Hannover/ Lünen, October 2021.

For the development of the activities linked to the Integrated Environmental Management System, the Valladolid work centre has the necessary human resources, which are expressly defined in the organisation chart.



# 3. Environmental aspects.

## 3.1. Evaluation methodology:

Befesa determines all the direct and indirect environmental aspects that have a positive or negative impact on the environment, as well as which of these aspects are significant on the basis of the established criteria. Therefore, in the identification of environmental aspects, the direct and indirect aspects of the activities, products and services have been taken into account, taking into account the different stages of the life cycle that includes the contracting of treatment services, reception, production, transport and use of the products obtained.

Direct environmental aspects are associated with Befesa's activities, products and services over which the company exercises direct management control. These aspects include:

- Atmospheric emissions
- Discharges to water, including infiltration to groundwater
- Generation, recycling, reuse, reuse, transport and disposal of hazardous and non-hazardous wastes
- Land use and contamination
- Energy use
- Use of additives and auxiliaries
- Local problems (noise, vibrations, odours, dust, visual appearance)

Indirect environmental aspects are the result of interaction between the company and third parties, and which can be influenced to a reasonable degree. These aspects include:

- Life cycle issues that can be influenced by the organisation
- Investments
- New markets
- Environmental performance and practices of contractors and suppliers

In assessing the significance of aspects, account is taken of:

- Relevant applicable legislation and internal requirements.
- Damage or benefits to the environment, including biodiversity
- Damages or benefits to the company.

- Situation of the environment
- Severity, frequency and reversibility of the aspect or impact
- Stakeholder interest/complaints

On the basis of these criteria, in the evaluation of the significance of the aspects, scores are assigned to determine which aspects are significant. For this purpose, the following are taken into account:

- Existing data on material and energy consumption, discharges, wastes and emissions in terms of risks.
- Activities regulated by environmental legislation
- Recruitment activities
- Activities with the most significant environmental costs and benefits.

In addition, account is taken of normal operating conditions, (abnormal) start-up and shutdown conditions and reasonably foreseeable emergency conditions, past, present and future, as well as investigations of previous incidents or accidents.

### 3.2. Significant environmental aspects.

Befesa takes into account the direct and indirect environmental aspects of its activities, products and services, including those derived from new projects, emergency situations or abnormal operating conditions that may have an impact on the surrounding environment. Furthermore, in accordance with the provisions of the new ISO 14001:2015 standard and European Regulation 2017/1505 amending Annexes I, II and III of European Regulation 1221/2009 (EMAS), for each of the aspects identified, the changes that may occur in the environment from a life cycle perspective (environmental impacts) are determined.

Befesa considers its significant environmental aspects in the planning of its Integrated Environmental Management System and in the definition of its environmental objectives and targets:

Positive direct and indirect environmental aspects that are considered significant under normal conditions:

| Environmental aspects significant | It comes from: | Environmental impact | Remarks |
|---|---|---|---|
| **Consumption of recycled raw materials** | Assessment of aspects 2021 and 2022. | Protection of natural resources | Befesa CT Valladolid closes the circle of natural resource protection by collecting hazardous industrial waste, recycling it and then reintroducing valuable materials into the production process (salt, paval, aluminium and ammonium sulphate). Befesa has been part of the circular economy for more than three decades. |
| **Hazardous waste treatment** | Assessment of aspects 2021 and 2022. | Protection of natural resources | Befesa CT Valladolid's activity consists of providing sustainable solutions to the primary and secondary aluminium industry by servicing and recycling the hazardous waste generated. |
| **Company environmental responsibility** | Assessment of aspects 2021 and 2022. | Protection of natural resources | Befesa CT Valladolid has an environmental liability insurance policy that covers the liabilities derived from its activity. |

Negative direct environmental aspects that are considered significant under normal conditions:

| Environmental aspects significant | It comes from: | Environmental impact | Actions |
|---|---|---|---|
| **Ammonia emissions ($NH_3$ )** | Evaluation of aspects 2019 | Atmospheric pollution, air quality | Implementation of reduction measures. Three-year target ending in 2021. |
| **Water consumption** | Assessment of aspects 2021 and 2022 | Depletion of natural resources | Process water and rainwater reuse<br>Target 2021 and 2022. |
| **Electricity consumption** | Assessment of aspects 2021 and 2022 | Depletion of natural resources | Certification to ISO 50001 and establishment of energy efficiency measures<br>Target 2021 and 2022. |
| **Gas consumption** | Assessment of aspects 2022 | Depletion of natural resources | Project MNS19. Higher weight for natural drying versus automated drying in the rotary dryer. |

| | | | |
|---|---|---|---|
| **Hazardous waste generation** | Assessment of aspects 2021. In 2022 it is no longer significant. | Soil contamination | Replacement of roofs with fibre cement, improvements in waste segregation and identification. |
| **Septic tank discharge** | Assessment of aspects 2021. In 2022 it is no longer significant. | Soil/water pollution | Control of the discharge of the new pit. |

Negative direct environmental aspects that are considered significant under emergency conditions:

| **Environmental aspects significant** | **It comes from:** | **Environmental impact** | **Actions** |
|---|---|---|---|
| **Water contamination by sulphuric acid tanker discharge** | Assessment of aspects 2021. In 2022 it is no longer significant. | Water pollution. | Installation of means of containment in the event of a sulphuric acid tank spillage in the unloading area. |
| **Fire/explosion facilities** | Assessment of aspects 2021. In 2022 it is no longer significant. | Soil, water, air pollution. | Update of the ICP and the explosion document. |

## 4. Programme of objectives and targets.

On an annual basis, objectives and targets are established based on the identification and evaluation of environmental aspects and impacts. The evolution of the actions proposed and the degree of compliance with the established objectives are reviewed on a monthly basis.

### 4.1. Summary of objectives and targets 2021.

For the financial year 2021, the following were established:

- **Environmental aspect: NH emissions $_3$**

| **Reduce $NH_3$ emissions in focus (from 2019)** | | **Associated indicator: Max. emission level of $NH_3$** | **Annual target value: 10mg/m$^3$** |
|---|---|---|---|
| **Targets** | **Responsible** | **Deadline** | **Resources** |
| **Project to reduce ammonia emissions in focus, which includes various measures such as continuous drying and gas treatment.** | Engineering | Rescheduled to April 2021 | 4.690.000€ |

Project to adapt to the sector's best available techniques (BAT) with a deadline of April 2021 to reduce ammonia emissions in focus, which includes various measures such as the installation of nebulisers, continuous drying and gas treatment.
**Target achieved.** The first measurements of ammonia emissions into the atmosphere, carried out in April 2021, show values below 10mg/m$^3$ .

- **Environmental aspect: electricity consumption**

| **Adequacy of compressed air installations** | | **Associated indicator: kW/t processed** | **Annual target value: 5% reduction in compressed air consumption** |
|---|---|---|---|
| **Targets** | **Responsible** | **Deadline** | **Resources** |
| **The aim is to improve the compressed air installation by producing savings in the energy management of the compressed air installation.** | EE (Energy Efficiency) | December 2021 | 6.000€ |

Installed more modern equipment with variable frequency drives and better energy management.

Stop/start flow monitoring for leakage and waste analysis.

**Target to be quantified.**

Finally, the new equipment was installed during the maintenance outage in December 2021 and the meters for continuous consumption monitoring during the outage in August 2022.

| **1% reduction in energy consumption-Internal code FO-O6** | | **Associated indicator: kW/t processed** | **Annual target value: 1% savings achieved** |
|---|---|---|---|
| **Targets** | **Responsible** | **Deadline** | **Resources** |
| **Establish energy contingency and self-consumption plans.** | EE (Energy Efficiency) | December 2021 | 300.000€ |
| **Adjusting the compressed air system** | EE (Energy Efficiency) | December 2021 | 90.000€ |
| **Adapt the consumption of large consumers to the real needs of the plant.** | EE (Energy Efficiency) | December 2021 | To be determined |

**Target not met.** 85.09kWh/t in 2021 compared to 77.38 kWh/t in 2020 . Represents an increase of 10%.

Implemented OCR for consumption control and transparent line switching for the TC.
Installed emergency generator with connection to key process equipment and possibility of operation as required.
The compressed air installation has been adapted in December 2021 and the monitoring of compressed air consumption is started.

- **Environmental aspect: water consumption.**

| **Maintain water consumption compared to 2020, including new facilities. -Internal code FO-06** | | **Associated indicator: $m^3$ / t processed SS** | **Annual target value: 1** |
|---|---|---|---|
| **Targets** | **Responsible** | **Deadline** | **Resources** |
| **Installation of new tanks for condensate and rainwater management.** | RTD (Production) | March 2021 | 2000€ |
| **Study of alternative uses of reclaimed water.** | RTD(Production) | September 2021 | NA |

The purpose of this objective has been the search for alternatives for the reuse of rainwater collected at the plant in order to be able to use it at points where raw water has been used up to now in order to reduce the consumption of raw water. This has been done and the agreed actions will be implemented in 2022.
**Target achieved.** Water consumption ($m^3$/t processed) 2021=1

- **Environmental aspect: waste generation.**

| **Reduction of waste generated for disposal by 10% compared to 2020 -Internal code DO-O7** | | **Associated indicator: t waste removed** | **Annual target value: 14t** |
|---|---|---|---|
| **Targets** | **Responsible** | **Deadline** | **Resources** |
| **Improve own and contractors' waste segregation.** | HSQE | August 2021 | NA |
| **Study possible management alternatives for wastes destined for disposal** | HSQE | December 2021 | NA |
| **Install separate collection containers** | HSQE | December 2021 | 1.200€ |

**Objective achieved.** 1.7t in 2021 vs. 15.27t in 2020

No alternatives have been found for hazardous waste going to disposal, but alternatives have been found for municipal solid waste now destined for recycling/reuse. A technical instruction on waste management in the workplace has been carried out. Placement of containers for the segregation of RNTPs (plastics, cardboard and MSW) in changing rooms and workshops. The placement of these began in the last quarter of 2021 (October).

- **Other environmental objectives.**

| **Reduction of natural gas consumption by 3.45% compared to 2020 - Internal Code SP-26** | | **Associated indicator: kWh/t SS** | **Annual target value: 425** |
|---|---|---|---|
| **Targets** | **Responsible** | **Deadline** | **Resources** |
| **Renovation of the second crystallisation stage** | ENG | October 2021 | 800.000€ |

**Objective not met.**

440.6 kWh/t SS in 2021 (0.01% reduction compared to 2020). The renovation of the crystalliser has led to a significant improvement in the efficiency of the equipment, but has been weighed down by problems with similar equipment in the area.

### 4.2. Summary of objectives and targets 2022.

After reviewing and analysing the results of the 2021 financial year, taking into account the significant environmental aspects and analysing our business unit risks and opportunities, the following objectives are formulated for 2022.

- **Environmental aspect: gas consumption.**

| **Reduction of gas consumption per tonne processed to below 441kWh/t by favouring natural drying over automated drying in the rotary dryer (MNS19).** | | **Associated indicator: kWh/t SS** | **Annual target value: 441 kWh /t** |
|---|---|---|---|
| **Targets** | **Responsible** | **Deadline** | **Resources** |
| **M1.-Installation of water pipes to feed the filter press from the waste water tank.**<br>**M2.-Commissioning and optimisation of the system** | ENG/EE | December 2022 | 800.000€ |

- **Environmental aspect: electricity consumption.**

| **Reduction of electricity consumption per tonne processed to below 90kWh/t by improving consumption control. - Internal code 2022-EE-RO-1: Improve control of energy consumption.** | | **Associated indicator: kWh/t SS** | **Annual target value: 90 kWh /t** |
|---|---|---|---|
| **Targets** | **Responsible** | **Deadline** | **Resources** |
| **M1.-To make a power map defining the relevant areas and the consumers within each area.**<br>**M2.-Implementing the necessary controls in powercloud**<br>**M3.-Expose the consumptions per processed tonne** | USA | December 2022 | NA |

- **Environmental aspect: water consumption.**

| **Reduction of water consumption per tonne processed by 2% compared to 2021 through improved stormwater management. - Internal code 2022-RTD-RO-2.** | | **Associated indicator: $m^3$ /t SS** | **Annual target value: 1.02$m^3$ /t** |
|---|---|---|---|
| **Targets** | **Responsible** | **Deadline** | **Resources** |
| **M1.-Installation of water pipes to feed the filter press from the waste water tank.**<br>**M2.-Commissioning and optimisation of the system** | RTD | July 2022 | 5.000€ |

- **Other environmental objectives.**

| **Reduction of MSW by 10% compared to 2021 - Internal Code 2022-HSQE-RO-5** | | **Associated indicator: t MSW** | **Annual target value: 11,50 t** |
|---|---|---|---|
| **Targets** | **Responsible** | **Deadline** | **Resources** |
| **M1.-Placement of selective collection containers in changing rooms, plant areas. Quarterly monitoring of waste generation.**<br>**M2.- Development of MA documentation for internal trainings (examples of bad practice/good practice)**<br><br>**M3.-Training on waste management for own and contracted personnel**<br>**M4.-Adaptation of the corporate waste management procedure to the Valladolid TC.** | HSQE | December 2022 | NA |

| **Adaptation to ISO14064:2018 for the improvement of the company's environmental footprint-Internal Code 2021-HSQE-RO-2** | | **Associated indicator: NA** | **Annual target value: Obtain certification** |
|---|---|---|---|
| **Targets** | **Responsible** | **Deadline** | **Resources** |
| **M1.- Recalculation of scope 3.**<br>**M2.-Update the corresponding procedure.**<br>**M3.-Internal audit**<br>**M4.-Certification** | HSQE | December 2022 | 1.500€ |

| **Minimising the consequences of energy supply shortages-Internal code: 2022-EE-RO-2** | | **Associated indicator: NA** | **Annual target value: NA** |
|---|---|---|---|
| **Targets** | **Responsible** | **Deadline** | **Resources** |
| **M1.-Connection of the compressed air system to the stand-alone system**<br>**M2.-Procedure the protocol for action in the event of a power failure.**<br>**M3.-Entering the corresponding proceedings** | USA | December 2022 | NA |

## 5. Befesa's environmental performance.

The following section reflects the company's environmental performance.
All indicators presented below are represented in absolute and relative ratios (per tonne of total raw material processed).

### 5.1 Atmospheric emissions.

The designation of the sources will change in 2021 following the entry into force of the new integrated environmental authorisation. There are 9 emission sources, listed below.

- Emission source no. 1: boiler A.
- Emission source no. 2: boiler B.
- Emission source no. 3-6: Belt filter extraction-Rotary dryer-Scrubber
- Emission source no. 4: Flare duct
- Emission source no. 5: extraction of salt slag grinding baghouse.
- Emission source No. 7: Aluminium slag filter grinding extraction
- Emission source No. 8: Sampling furnaces.
- Emission source No. 9: Scrap milling

Befesa Aluminio CT Valladolid complies with Royal Decree 100/ 2011, of 28 January, which updates the catalogue of activities that potentially pollute the atmosphere and establishes the basic provisions for its application. The installation, layout and dimensions of connections and accesses are adequate for measurements and sampling. The results of the last inspection are entirely within the authorised limits of the regulations in force.

The results of the emission measurements taken during the year 2021 are presented below, in addition to the emission limit values of the sources established in our AAI (Integrated Environmental Authorisation). As part of the Befesa Aluminio, SL CT Valladolid self-monitoring system, more measurements are taken than strictly required in the AAI. The data presented are the average of the measurements taken at 2021, none of which exceeded the limits set out in the IEA in force at that time.

- **Focus 1: Boiler A**. This boiler is the one used under normal operating conditions.

| Parameter assessed | 2019 | 2020 | 2021 | VLE |
|---|---|---|---|---|
| CO mg/ $Nm^3$ | <6 | <6,5 | 3,67 | 100 |
| CO kg/ t | 0,011 | $4,77*10^{-5}$ | $2,53*10^{-5}$ | N/ A |
| $NO_x$ mg/ $Nm^3$ expressed in $NO_2$ | 171,5 | 167,5 | 178,04 | 200 |
| $NO_x$ kg/ t expressed as $NO_2$ | 0,030 | 0,001 | 0,001 | N/ A |

- **Focus no. 2: Boiler B.** Occasional use (maintenance operations or breakdowns of boiler A).

| Parameter assessed | 2019 | 2020 | 2021 | VLE |
|---|---|---|---|---|
| CO mg/ $Nm^3$ | <3,8 | <7,5 | 3,9 | 100 |
| CO kg/ t | $2,59*10^{-5}$ | $5,51*10^{-5}$ | $2,69*10^{-5}$ | N/ A |
| NOx mg/ $Nm^3$ (expressed as $NO_2$ ) | 175 | | 98,66 | 200 |
| NOx kg/ t expressed as $NO_2$ | $1,19*10^{-3}$ | $4,99*10^{-4}$ | $6,81*10^{-4}$ | N/ A |

- **Focus no. 3-6:** Belt filter extraction-Rotary dryer-Scrubber

| Parameter assessed | 2019 | 2020 | 2021 | VLE |
|---|---|---|---|---|
| HCl mg/ $Nm^3$ | 0,05 | <0,1 | 0,1065 | 230 |
| HCl kg/ t | $5,37*10^{-5}$ | $7,34*10^{-7}$ | $735*10^{-7}$ | N/ A |
| $NH_3$ mg/ $Nm^3$ | 0,43 | 9,7 | 0,4925 | 10* |
| $NH_3$ kg/ t | 0,001 | $7,12*10^{-5}$ | $3,42*10^{-6}$ | N/ A |
| $PH_3$ mg/ $Nm^3$ | N/ A | N/ A | 0,0246 | 10* |
| $PH_3$ kg/ t | N/ A | N/ A | $1,70*10^{-7}$ | N/ A |
| $SH_2$ mg/ $Nm^3$ | N/ A | N/ A | 0,21 | 2* |
| $SH_2$ kg/ t | N/ A | N/ A | $1,45*10^{-6}$ | N/ A |
| Particles mg/ $Nm^3$ | <2 | - | 0,97 | 5* |

| | | | | |
|---|---|---|---|---|
| **Particulates kg/ t** | 1,78*10$^{-4}$ | N/A | 6,70*10$^{-6}$ | N/ A |

*VLE of the new environmental authorisation.

- **Focus no. 4:** Torch

No measurements are taken as this is not a requirement of the integrated environmental authorisation.

- **Focus no. 5:** baghouse extraction salt slag grinding.

| Parameter assessed | 2019 | 2020 | 2021 | VLE |
|---|---|---|---|---|
| **Particulate matter, ($PM_{10}$) mg/ Nm$^3$** | <2 | <1 | 0,66 | 5 |
| **Particulates, ($PM_{10}$) kg/ t** | 0,001 | 7,34*10$^{-6}$ | 4,56*10$^{-6}$ | N/ A |

- **Focus no. 7:** extraction filter grinding of aluminium slag.

| Parameter assessed | 2019 | 2020 | 2021 | VLE |
|---|---|---|---|---|
| **Particulate matter, ($PM_{10}$) mg/ Nm$^3$** | <2 | <1 | N/A | 5 |
| **Particulates, ($PM_{10}$) kg/ t** | 3,78*10$^{-4}$ | 7,34*10$^{-6}$ | N/A | N/A |

In 2021 the facility has been idle.

- **Focus no. 8:** Sampling furnace.

| Parameter assessed | 2019 | 2020 | 2021 | VLE |
|---|---|---|---|---|
| **Particulate matter, ($PM_{10}$) mg/ Nm$^3$** | <1 | <1 | 1,55 | 5 |
| **Particulate matter, ($PM_{10}$) kg/ t** | 7,34*10$^{-6}$ | 7,34*10$^{-6}$ | 1,07*10$^{-5}$ | N/ A |

- **Focus no. 9:** extraction and milling of aluminium scrap.

During 2021, no measurements of emissions have been carried out at source no. 9 for the extraction of scrap milling due to the fact that the facility has not been used, and this situation has already been reported.

Total emissions in 2021 of CO, $NO_x$, $Cl^-$ , $NH_3$ and PM have been as follows.

| Parameter assessed | 2019 | 2020 | 2021 |
|---|---|---|---|
| Particulate matter, ($PM_{10}$ ) kg | 268 | 402 | 716 |
| Particulate matter, ($PM_{10}$ ) kg/ t | 0,002 | 0,003 | 0,005 |
| $NO_2$ kg | 4.461 | 4.466 | 4.795 |
| $NO_2$ kg/ t | 0,03 | 0,033 | 0,033 |
| CO kg | 1.915 | 160 | 99 |
| CO kg/ t | 0,01 | 0,001 | 0,0007 |
| $Cl^-$ kg | 7,88 | | |
| Cl- kg/ t | $5,37*10^{-5}$ | $1,61*10^{-4}$ | $4,14*10^{-4}$ |
| $NH_3$ kg | | 2194 | 261 |
| $NH_3$ kg/ t | 0,001 | 0,016 | 0,002 |
| $SO_2$ kg | 3.835 | 498 | 0 |
| $SO_2$ kg/ t | 0,03 | 0,004 | 0 |

In relation to annual greenhouse gas emissions, the direct emissions (scope 1) and indirect energy emissions (scope 2) of Befesa Aluminio S.L CT Valladolid totalled 16,798.40 t $CO_2$ eq, or 0.116 t $CO_2$ eq per tonne of material treated.

The annual emissions of each type of greenhouse gas in 2021 are as follows:

| Greenhouse gas emissions | 2019 | 2020 | 2021 |
|---|---|---|---|
| $CO_2$ (t $CO_2$ equiv.) | 18.759 | 16.569 | 16.781 |
| $CO_2$ (t CO2 equiv./t processed) | 0,129 | 0,114 | 0,115 |
| $CH_4$ (t $CO_2$ equiv.) | 7,27 | 7,10 | 7,39 |
| $CH_4$ (t CO2 equiv./t processed) | 4,95*10-$^5$ | $5,21*10^{-5}$ | $5,10*10^{-5}$ |
| $N_2$ O (t $CO_2$ equiv.) | 10,45 | 9,64 | 9,59 |
| $N_2$ O (t CO2 equiv./t processed) | $7,12*10^{-5}$ | $7,08*10^{-5}$ | $6,62*10^{-5}$ |
| HFCs (t $CO_2$ equiv.) | 0 | 0 | 0 |
| HFCs (t CO2 equiv./t processed) | 0 | 0 | 0 |
| $SF_6$ (t $CO_2$ equiv.) | 0 | 0 | 0 |
| $SF_6$ (t CO2 equiv./t processed) | 0 | 0 | 0 |

| Greenhouse gas | 2019 | 2020 | 2021 |
|---|---|---|---|
| Total emissions | 18.777,21 | 16.585,31 | 16.798,40 |
| Total emissions/tonne | 0,128 | 0,122 | 0,116 |

*Data corrected due to an error in the average flare flow rate.

No PFCs (perfluorocarbons) and $NF_3$ (nitrogen trifluoride) have been emitted.

### 5.2 Noise.

The noise and vibrations emitted in our facilities are those typical of the activity of the industrial treatment plant due to the machines in motion and the movement of trucks transporting raw materials or our products.

For the evaluation of noise emissions into the atmosphere, we have taken as a reference both the legislation in force and the periodicity (four-yearly) and emission limits established in our AAI (night noise: 55 Laeq dB (A) and daytime noise: 65 Laeq dB (A).

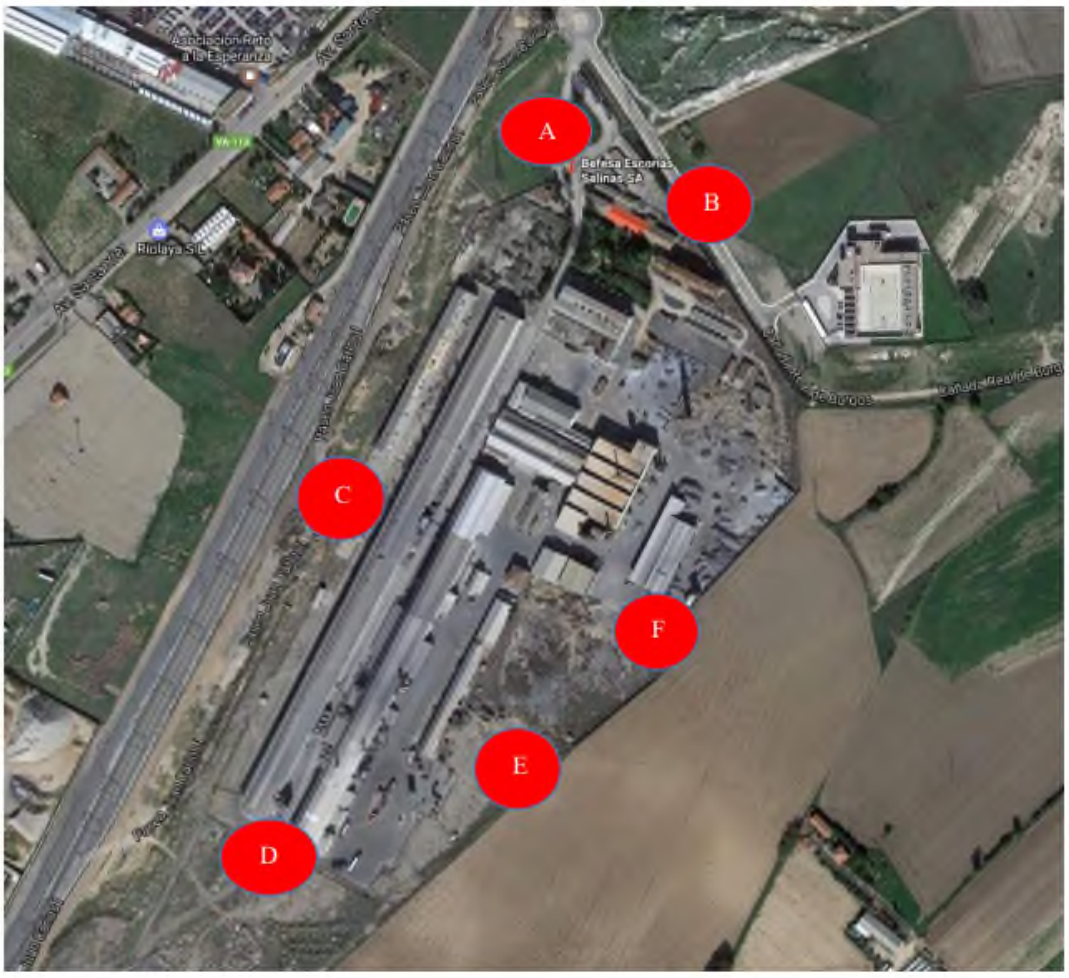
Also taken into account was Law 5/2009 of 4 June 2009, on noise in Castilla y León, which establishes in Article 13 that, in the case of corrections for the presence of emerging tonal components, low frequency or impulsive noise, the limits will be 5 dB(A) higher than the corresponding value in Annex I.

For this reason, the limits applicable to Befesa Aluminio CT Valladolid are 70 dB (A) during the day and 60 dB (A) at night.

The most recent study was carried out in 2021 by an authorised inspection body and the results were as follows.

| Date 27/01/2021 | Point A dB | Point B dB | Point C dB | Point D dB | Point E dB | Point F dB |
|---|---|---|---|---|---|---|
| Daytime | 58,4 | 53,2 | 53,5 | 63,8 | 61,4 | 55,7 |
| Night time | 53,9 | 57,1 | 57,8 | 52,2 | 52,2 | 53,9 |

The measurement points are shown on the map below:




Fuente: Google Maps

The next study will be carried out in 2023.

### 5.3 Water

At Befesa Aluminio CT Valladolid, all water generated in the production process and rainwater or runoff water is collected through a system of storage tanks. This recovered water is pumped back into the process to cover part of the water consumption needs. The existence of these tanks allows us greater room for manoeuvre in the event of a possible accidental spillage that could affect the discharge point.

Outside the process, Befesa Aluminio CT Valladolid has a water discharge authorisation granted by the Confederación Hidrográfica del Duero whose parameters are periodically

checked by means of analyses carried out by an accredited laboratory. The analytical results are shown below with a comparison of the limit values.

**Checkpoint 1: PC-1**

- The company discharges its rainwater directly into the river Pisuerga through the outfall of the Duero canal.

| Parameter | 2019 | 2020 | 2021 | Limit value AAI |
|---|---|---|---|---|
| pH | 7,45 | 7,42 | 7,22 | 6-9 |
| Aluminium | 0,014 | 0,007 | 0,1 | 0,5 mg/ L |
| Suspended solids | 5,00 | 8,75 | 10 | 35 mg $O_2$ / L |
| COD | 40,25 | | 46,75 | 125 mg $O_2$ / L |

Quarterly controls are carried out. The data in the table show the average of the 4 annual analyses. All of them are within the established limits.

With regard to the discharge of rainwater, during 2021 it was 9,043 $m^3$ , which is within our Integrated Environmental Authorisation of 31,500 $m^3$ .

**Checkpoint 2: PC-2**

- There is a septic tank with seepage of sanitary sewage into the ground. This discharge is characterised as "urban".

| Parameter | 2019 | 2020 | 2021 | Limit value AAI |
|---|---|---|---|---|
| $BOD_5$ | | <15 | | 60 mg $O_2$ / L |
| COD | | 94 | 80 | 200 mg $O_2$ / L |
| Suspended solids | | | | 90 g/ L |
| pH | NA | NA | 8 | 5.5-9.5 ud pH |

Quarterly controls are carried out. The data in the table show the average of the 4 annual analyses. All of them are within the established limits.

Considering the number of workers and average water consumption, the estimated discharge from the septic tank is 708m$^3$ compared to 990m$^3$ for the AAI.

- Discharge estimate= Tm*Cm*d(2021)
- Tm: average no. of workers=65.0=no. hours worked in 2021(189,827h)/(8h*365)
- Cm: Average water consumption per person (without shower)=133L (average water consumption according to INE*)-100L (shower)=33L
    - Data taken from the 2020 Water Supply and Sanitation Statistics published by the National Statistics Institute (INE) in 2021.
    - The average water consumption for showering according to the WHO is 100l for 5 minutes.
    - d(2021): Days worked in 2021 in Valladolid TC=330.

### 5.4 Waste production.

In accordance with the provisions of Law 22/2011, of 28 July, on waste and contaminated soils, Befesa Aluminio CT Valladolid is considered a producer of hazardous waste, with the following authorisation numbers.

- Producer No 07P01094700000009

**Hazardous waste generated** during 2021 is as follows:

| Hazardous waste IWWW | EWL code | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| **Used oil (t) and (t/ t)** | 130205 | 2,38 | 1,70 | 2,86 |
| | | $1,62*10^{-5}$ | $1,35*10^{-5}$ | $1,97*10^{-5}$ |
| **Aerosols (t) and (t/t)** | 161103 | 0 | 0 | 0 |
| | | 0 | 0 | 0 |
| **Packaging of hazardous substance residues (t) and (t/ t)** | 150110 | 3,42 | 14,32 | 0,6 |
| | | $2,33*10^{-5}$ | $1,05*10^{-4}$ | $4,14*10^{-6}$ |

| | | | | |
|---|---|---|---|---|
| **Absorbents, filtration materials (t) and (t/ t)** | 150202 | 1,02 | 3,10 | 6,97 |
| | | $6,95*10^{-6}$ | $2,28*10^{-5}$ | $4,81*10^{-5}$ |
| **Oil filters (t) and (t/ t)** | 160107 | 0,11 | 0,07 | 0,12 |
| | | $7,50*10^{-7}$ | $5,14*10^{-7}$ | $1,38*10^{-6}$ |
| **Chemicals (t) and (t/ t)** | 160506 | 0,09 | 0,02 | 0,04 |
| | | $6,13*10^{-7}$ | $1,47*10^{-7}$ | $8,29*10^{-7}$ |
| **Fluorescent tubes (t) and (t/ t)** | 200121 | 0,03 | 0,13 | 0 |
| | | $2,04*10^{-7}$ | $9,54*10^{-7}$ | 0 |
| **Batteries (t) and (t/ t)** | 200133 | 0 | 0 | 40 |
| | | 0 | 0 | $2,76*10^{-4}$ |
| **Non-halogenated organic solvent (t) and (t/ t)** | 120301 | 0,95 | 1,2 | 1,4 |
| | | $6,48*10^{-6}$ | $8,81*10^{-6}$ | $9,67*10^{-6}$ |
| **Grinding dust (t) and (t/ t)** | 100321 | 252,58 | 427,29 | 0 |
| | | 1,72*10-3 | 3,14*10-3 | 0 |
| **Total (t) and (t/ t)** | | 260,58 | 447,83 | 51,99 |
| | | 0,0018 | 0,0031 | $3,59*10^{-4}$ |

**Non-hazardous waste generated** during 2021 is as follows:

| Non-hazardous waste IWWW | EWL code | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| **Demolition waste** | 1701076 | 15,28 | 10,28 | 8,98 |
| | | $1,04 *10^{-4}$ | $7,55*10^{-5}$ | $6,20*10^{-5}$ |
| **Cardboard and paper (t) and (t/ t)** | 150101 | 4,24 | 2,760 | 2,26 |
| | | $2,89*10^{-5}$ | $2,03 *10^{-5}$ | $1,56*10^{-5}$ |
| **Wood (t) and (t/ t)** | 150103 | 14,44 | 8,10 | 9,24 |
| | | $9,84*10^{-5}$ | $5,95*10^{-5}$ | $6,38*10^{-5}$ |
| **Scrap (t) and (t/ t)** | Various | 1.044 | 1.671,98 | 1.785,56 |

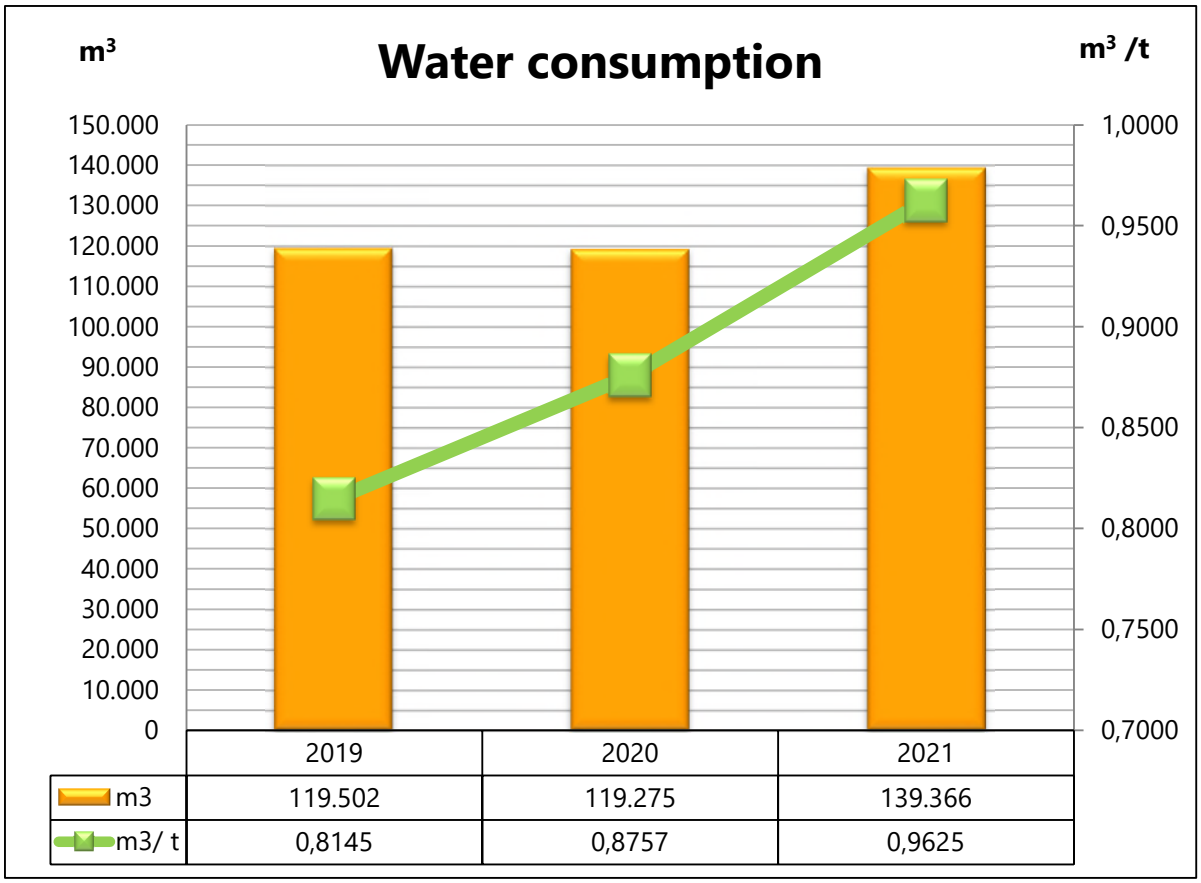
| | | | | |
|---|---|---|---|---|
| | | 7,12 *$10^{-3}$ | 1,23*$10^{-3}$ | 0,012 |
| **Septic tank sludge (t) and (t/ t)** | 200334 | 66,14 | 67,44 | 66,92 |
| | | 4,51*$10^{-4}$ | 4,95*$10^{-4}$ | 4,62*$10^{-4}$ |
| **Total (t) and (t/ t)** | | 1.144 | 1.760 | 1.873 |
| | | 0,008 | 0,011 | 0,013 |

All waste produced has been handed over to authorised waste management companies for treatment and/or disposal.

# 6. Basic environmental indicators.

### 6.1. Water consumption.

The volume of water from the well, used from process 1 per total unit of tonnes produced is shown below.




| | 2019 | 2020 | 2021 |
|---|---|---|---|
| m3 | 119.502 | 119.275 | 139.366 |
| m3/ t | 0,8145 | 0,8757 | 0,9625 |

The amount of water used was 139,366 $m^3$ compared to the 119,300 $m^3$ authorised in our Integrated Environmental Authorisation and 0.9617 $m^3$ / t . The increase in water consumption per tonne processed is due to the start-up of the gas scrubbing facilities, which require a new supply of water.

At the end of 2020, procedures were initiated with the Duero Hydrographic Confederation for a modification of the groundwater exploitation concession. A resolution from the Duero Hydrographic Confederation is still pending.

With regard to the rest of the processes, only water from the Valladolid water network is consumed for sanitary use, so it is not considered significant.

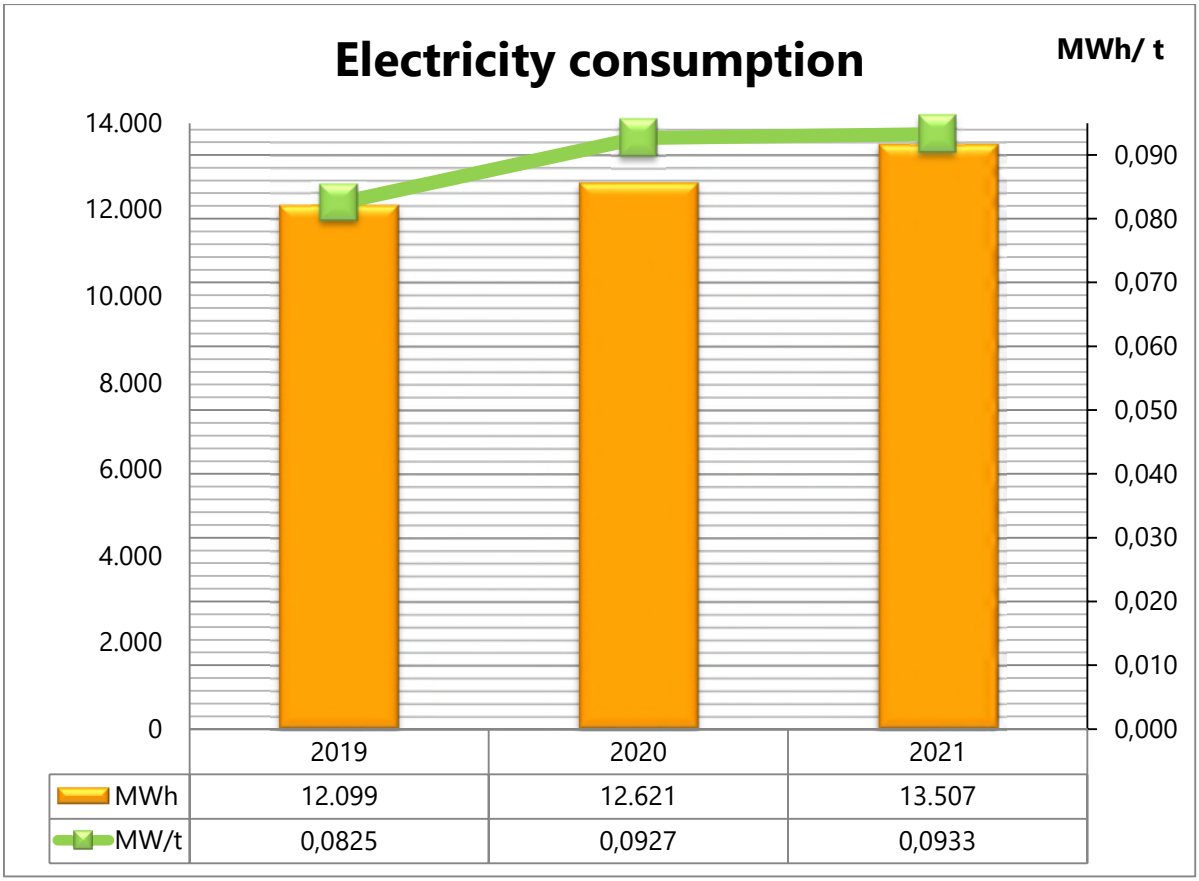
### 6.2. Energy consumption.

The main fuel at Befesa Aluminium S.L. CT Valladolid is natural gas, which is used in the steam generating boilers, in the rotary dryer and in the torch.

The electrical energy is used to power the motors of pumps, mills, conveyor belts, fans, etc., as well as to control the entire plant.

Diesel fuel is not used in the production process, but is used for internal transport (loaders and forklifts), the heating boiler in one of the buildings and nitrogen for the inertisation of the reactors.

**Electricity:** The total electricity consumption for the last three years per total tonne processed is as follows.




| | 2019 | 2020 | 2021 |
|---|---|---|---|
| MWh | 12.099 | 12.621 | 13.507 |
| MW/t | 0,0825 | 0,0927 | 0,0933 |

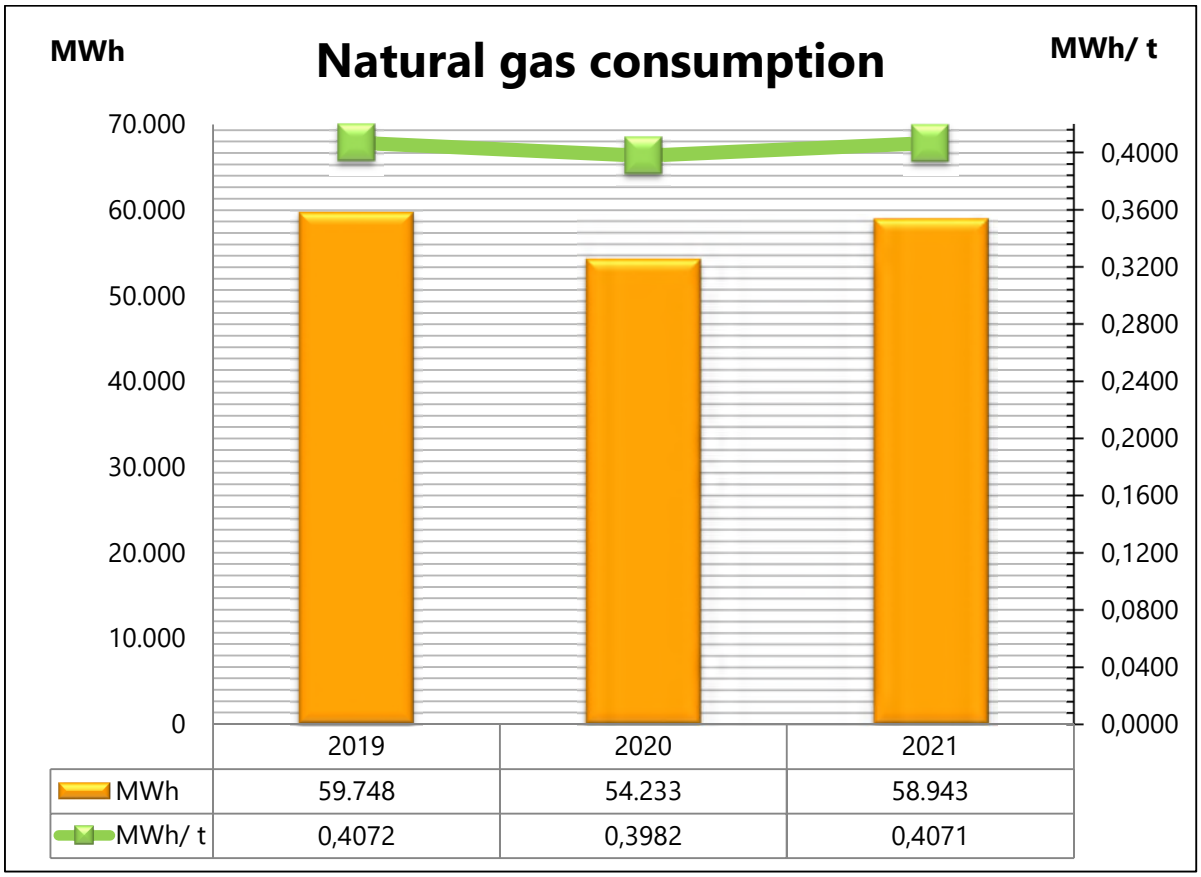
Consumption per tonne remains almost constant, which indicates a higher energy efficiency of the process, as the new gas scrubbing facilities have been in operation during 2021, leading to an increase in electricity consumption.

The energy consumed by the organisation from renewable energy sources is 20% of the annual consumption in 2021. The origin of the production of electricity is guaranteed by the breakdown of the mix of production technologies corresponding to the energy sold by the energy supplier presented on each invoice.

| Renewable energy | | | |
|---|---|---|---|
| **Year** | Renewable energy | Mwh | Mwh / t |
| 2019 | | 1.410 | 0.010 |
| 2020 | | 1.798 | 0,013 |
| 2021 | | 2.613 | 0,018 |

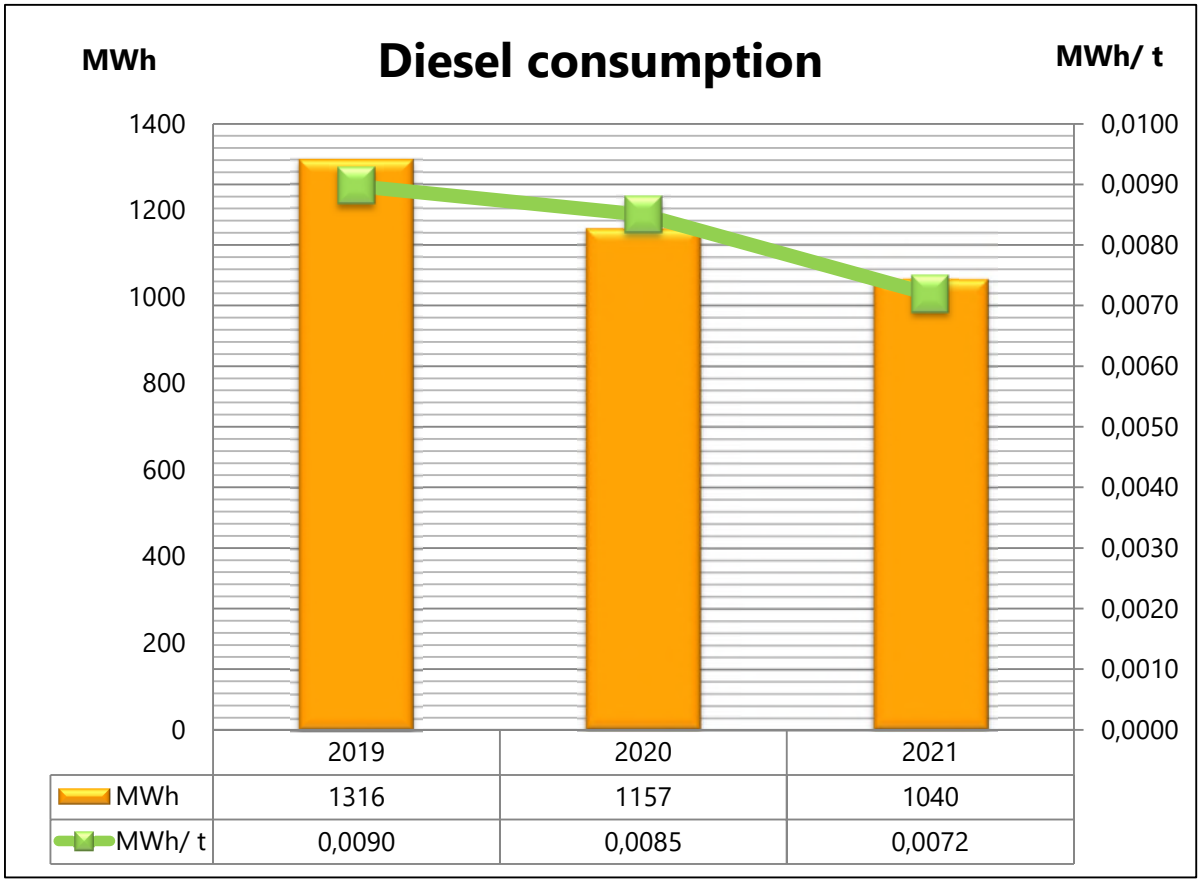
No energy generated by the organisation is produced from renewable energy sources.

**Natural gas:** The consumption of natural gas used to fuel the boilers over the last three years is as follows:




Gas consumption slightly above 2020, weighed down mainly by the months of December and July, with problems in exchangers, plant shutdowns, etc.

**Diesel:** Diesel is used for heating the offices and as fuel for the machinery (loaders). The consumption for the last three years is shown below.




| | 2019 | 2020 | 2021 |
|---|---|---|---|
| MWh | 1316 | 1157 | 1040 |
| MWh/ t | 0,0090 | 0,0085 | 0,0072 |

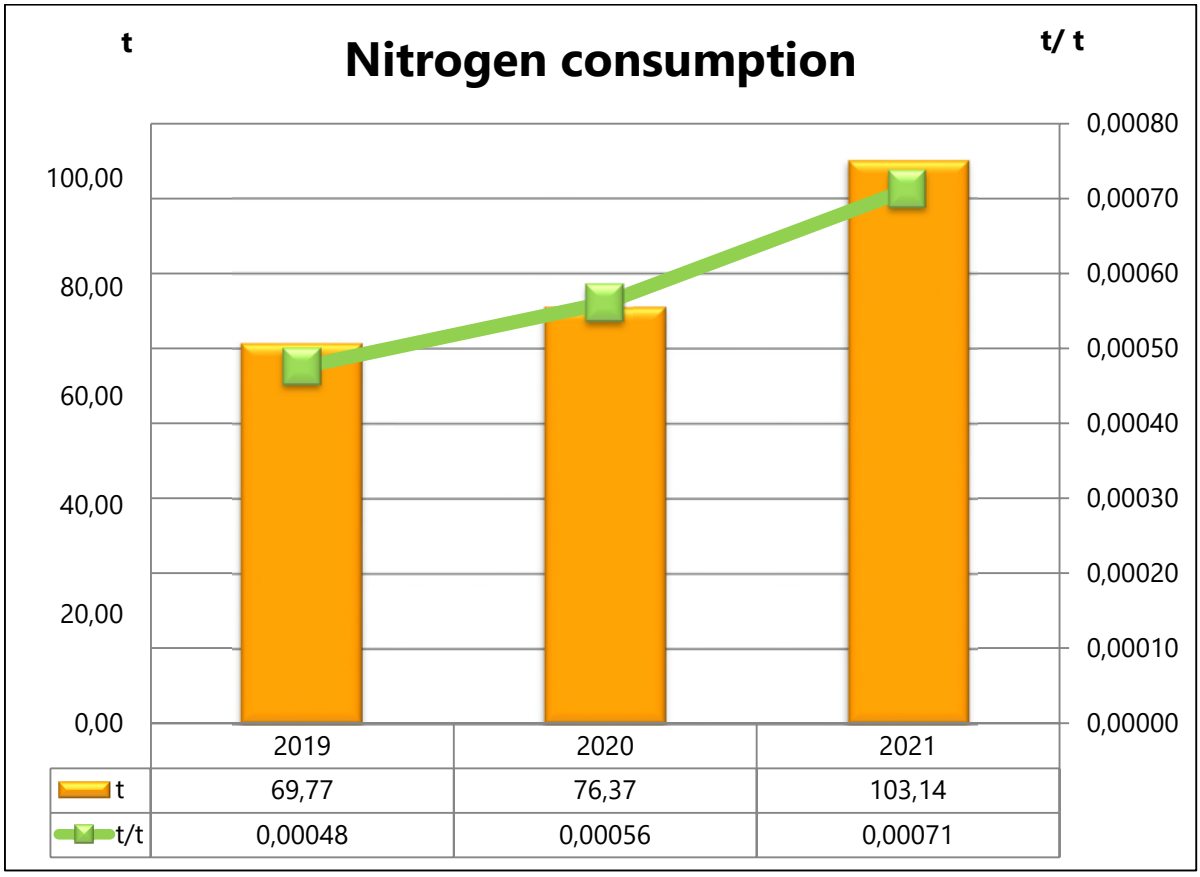
The conversion of diesel to MWh has been done through the PCI (lower calorific value) of the diesel, obtained from the value given by the IDAE and the density of the safety data sheet, the value being 10.033 kWh/l.

Diesel consumption remains stable, although with a clearly marked downward trend.

### 6.3. Nitrogen consumption.

Nitrogen is used for the inerting of equipment.

Nitrogen consumption varies depending on the number of reactor outages, the consumption for the last three years is shown below.

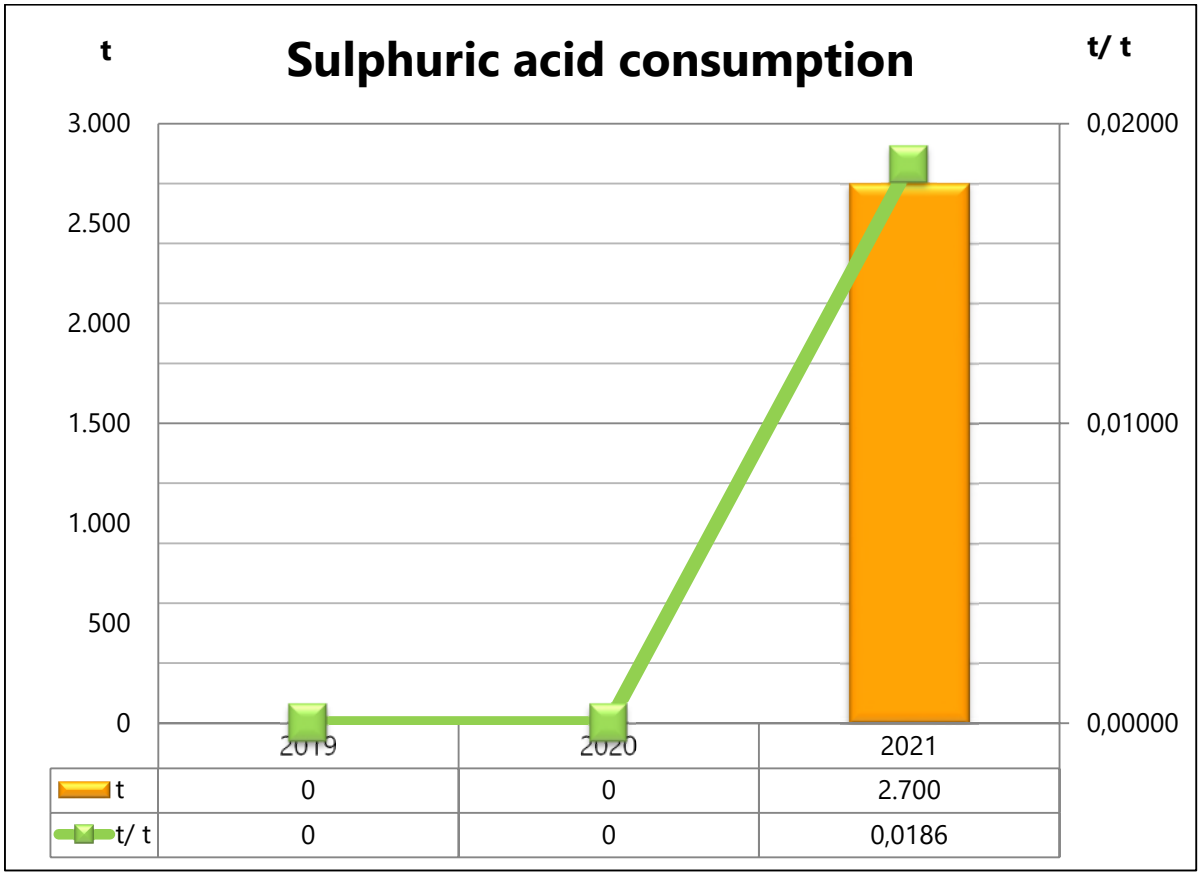



Note: To convert from $m^3$ nitrogen to tonnes, the density data given in the product safety data sheet is used.

Nitrogen consumption above 2021, mainly burdened by problems in exchangers, plant shutdowns, etc.

### 6.4. Sulphuric acid consumption

Sulphuric acid is used for scrubbing the air stream with $NH_3$ from the drying process as well as from the extraction of the production hall in the scrubbers.




### 6.5. Consumption of additives

In addition to the raw materials mentioned above, the following chemical products are consumed as additives to the process at Befesa Aluminio CT Valladolid:

- Flocculant: used in the reaction-decantation process of solids.
- Defoamer: to reduce foaming in reaction and settling.

Average consumption over the last three years has been as follows:

| | Consumption of additives | | | | | |
|---|---|---|---|---|---|---|
| | Flocculant | | | Defoamer | | |
| Date | kg | t | t/ t | kg | t | t/ t |
| 2019 | 8.110 | 8,110 | 0,00006 | 6.201 | 6,20 | 0,000042 |
| 2020 | 10.992 | 10,992 | 0,00008 | 9.823 | 9,82 | 0,000072 |
| 2021 | 8.937 | 8,937 | 0,00006 | 9.151 | 9,15 | 0,000063 |

The consumption of flocculant and defoamer remains within the normal range.

### 6.6. Biodiversity.

The following is a list of the constructed surface area at Befesa Aluminio CT Valladolid.

| Land use | 2019 | | 2020 | | 2021 | |
|---|---|---|---|---|---|---|
| | Usable area ($m^2$) | Usable area ($m^2$ /t processed) | Usable area ($m^2$) | Usable area ($m^2$ /t processed) | Usable area ($m^2$) | Usable area ($m^2$ /t processed) |
| Total use (buildings) | 38.757,37 | 0,264 | 38.757,37 | 0,285 | 38.757,37 | 0,268 |
| Total sealed surface (waterproof) | 97.500,00 | 0,664 | 97.500,00 | 0,716 | 97.500,00 | 0,673 |
| Total area in the nature-oriented centre | 0 | 0 | 0 | 0 | 0 | 0 |
| Total area outside the centre oriented by nature | 0 | 0 | 0 | 0 | 0 | 0 |
| Total occupancy of facilities | 106.700,00 | 0,727 | 106.700,00 | 0,783 | 106.700,00 | 0,737 |

The total occupancy of our facilities is 106,700 $m^{2.}$ . However, there is no impact on biodiversity, neither the land nor the surrounding area is considered a special protection area.

# 7. Compliance with legal requirements.

Environmental authorisations and permits are listed below along with relevant information associated with compliance with specific legal requirements, in addition to compliance with other legislative requirements.

At the end of 2020, Order FYM/1088/2020, of 13 October, was published regarding the review for their adaptation to BATs and waste regulations of the companies "Befesa Aluminio, S.L." and "Befesa Aluminio, S.L.U."; the Non-Substantial Modification 17 (MNS17) of "Befesa Aluminio, S.L.U."; and the unification of the environmental authorisations of the treatment and recovery plants for scrap metal, aluminium waste and salt slag, in the municipality of Valladolid, of both companies, in "Befesa Aluminio, S.L.U." as the sole owner. The order limits its effects to the revision and adaptation to the best available techniques (BAT) of the integrated environmental authorisation (AAI), the incorporation of the non-substantial modification 17 (MNS17) and the unification of the environmental authorisations held by Befesa Aluminio, S.L.U. The implementation of the modifications included in this order will take effect during the first four-month period of 2021.

ORDER FYM/1007/2021, of 27 August, which modifies Order FYM/1088/2020, of 13 October, relating to the review for adaptation of the BATs and waste regulations of the companies "Befesa Aluminio, S.L." and "Befesa Aluminio, S.L.U." and the Non-Substantial Modification 17 (MNS17) of "Befesa Aluminio, S.L.U." and the unification of the environmental authorisations for the treatment and recovery plants for scrap metal, aluminium waste and salt slag, in the municipality of Valladolid, of both companies, in "Befesa Aluminio, S.L.U." and "Befesa Aluminio, S.L.U.", in the municipality of Valladolid."and the unification of the environmental authorisations of the treatment and recovery plants for scrap metal, aluminium waste and salt slag, in the municipality of Valladolid, of both companies, in "Befesa Aluminio, S.L.U." as the sole owner, as a consequence of Non-Substantial Modification 18 (MNS 18). 043-21-MNSVA

- Installation of a new reactor which will act as a backup to maintain the production rate during the cleaning, shutdown and maintenance operations of the other five reactors.
- Installation of metal separation equipment at the end of the salt slag crushing process in order to increase the recovery of the metallic aluminium contained in the

slag, as well as to increase the quality of the aluminium concentrates obtained in this part of the process.

ORDER MAV/1027/2022, of 3 August, which modifies Order FYM/1088/2020, of 13 October, relating to the review for adaptation to the BATs and waste regulations of the companies "Befesa Aluminio, S.L." and "Befesa Aluminio, S.L.U." and the non-substantial modification 17 (MNS17) of "Befesa Aluminio, S.L.U." and to the unification of the environmental authorisations for the treatment and recovery plants for scrap metal, aluminium waste and salt slag, in the municipality of Valladolid, in "Befesa Aluminio, S.L.U." and "Befesa Aluminio, S.L.U.", in the municipality of Valladolid."and the unification of the environmental authorisations of the treatment and recovery plants for scrap metal, aluminium waste and salt slag, in the municipality of Valladolid, of both companies, in "Befesa Aluminio, S.L.U." as the sole owner, as a consequence of non-substantial modification 19 (MNS 19). 027-22-MNSVA

- Extension and modification of the collection system currently installed in the aluminium oxide storage building (Paval), by replacing and extending the current hood together with the new installation of two adjacent hoods, increasing storage and collection capacity.
- Increasing the treatment capacity of the scrubbers with the installation of new filling and enlargement of the contact/washing surface, which will improve the efficiency of the system from 95 to 97.5%.

*Emissions:*

Law 16/2002, of 1 July 2002, on Integrated Pollution Prevention and Control, which establishes the Emission Limit Values (ELV).

- ✓ Submitting to the Junta de Castilla y León the measurements carried out in 2021 with the limits established in the corresponding AAI (Integrated Environmental Authorisation).

Royal Decree 508/2007 of 20 April 2007, which regulates the provision of information on emissions from the E-PRTR Regulation and integrated environmental authorisations.

- ✓ Reporting all emissions and waste data to the PRTR Castilla y León Registry by February 2021.

*Noise and vibrations:*

Regulation for the Protection of the Environment against Noise and Vibration Emissions of Valladolid City Council.

- ✓ Submitting a technical report of biennial measurements accrediting technical compliance with the noise levels, the last one submitted in 2021, and this being compliant at all measurement points.

*Waste:*

Law 22/2011, of 28 July 2011, on waste and contaminated soils.

- ✓ Complying with this Law with all waste generated and processed in the facilities. **Repealed regulation. See subsequent legislation.**

Law 7/2022 of 8 April on waste and contaminated soils for a circular economy.

- ✓ Complying with this Law with all waste generated and processed at the facilities.

Royal Decree 553/2020 of 2 June regulating the shipment of waste within the territory of the State.

- ✓ Complying with the requirements established for waste shipments.

Registration in the Register of Hazardous and Non-Hazardous Waste Managers under number 7G04084700000009 and 07G01964700000009 respectively and registration in the Register of Producers of Hazardous Waste under number 07P01094700000009.

- ✓ Presenting in February 2021 both the annual report of managers and producers.
- ✓ Waste minimisation study for the period 2019-2022 presented.

Royal Decree 646/2020 of 7 July regulating the disposal of waste by landfill.

- ✓ In compliance with the same.

*Flooring:*

Royal Decree 9/2005, of 14 January 2005, establishing the list of potentially soil-polluting activities and the criteria and standards for the declaration of contaminated soil.

- ✓ The soils report was delivered on 05/10/2016.
- ✓ In June 2019, a detailed analytical characterisation of the subsoil at the Befesa Aluminio CT Valladolid facilities was performed. The subsoil was found to be affected by hydrocarbons, unrelated to any source of impact on the site, but rather to a historical accidental spillage prior to the paving of the plot. As there are soils with concentrations higher than the generic reference levels (GRLs) contemplated in this legislation, a Quantitative Risk Analysis (QRA) was carried out. This report determines that, having analysed the possible current and future scenarios at the site and in the surrounding area, there is no unacceptable risk to human health derived from the existing condition of the site's soils.
- ✓ On 16/07/2020 the Junta de Castilla y León received the "Communication on acceptance of the soil situation report in accordance with Royal Decree 9/2005".

*Energy efficiency:*

Royal Decree 56/2016 of 12 February transposing Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency as regards energy audits of energy service providers and auditors and promotion of energy supply efficiency.

- ✓ In compliance with this royal decree, the energy audit was carried out and submitted to the Junta de Castilla y León on 23/09/2016. A communication was received from

the Junta de Castilla y León regarding the administrative register of energy audits on 04/10/2016.

- ✓ On 25/06/2020 the energy audit communication is carried out.

*Environmental liability:*

Law 26/2007, of 23 October, on Environmental Responsibility and Order ARM/1783/2011, of 22 June, by which, before 31/10/2018, it must communicate the constitution of the financial guarantee that allows it to face the environmental responsibility inherent to its activity, in the event that it is required to do so.

Royal Decree 2090/2008, of 22 December, approving the Regulations for the partial implementation of Law 26/2007.

Law 11/ 2014, of 3 July 2014, amending Law 26/ 2007, of 23 October 2007, on environmental liability.

Royal Decree 183/ 2015, of 13 March, amending the Regulations for the partial development of Law 26/2007, of 23 October, on Environmental Liability, approved by Royal Decree 2090/2008, of 22 December.

- ✓ On 19/07/2018, a declaration of responsibility was delivered to the Junta de Castilla y León, determining the financial guarantee.

- ✓ The risk analysis report is carried out by an external company. Following the Environmental Risk Analysis (ARA) carried out, it can be concluded that, given the amount of the costs of repairing the potential environmental damage to be expected, within the framework of the provisions of Law 26/2007, on Environmental Responsibility, there is no obligation to deposit a mandatory financial guarantee.

- ✓ In March 2021, a new environmental risk analysis and assessment report was carried out by an external company, as a result of one of the requirements of Annex III of the Environmental Conditions of ORDER FYM/1088/2020. As in the previous report, it is concluded that there is no obligation to deposit a mandatory financial guarantee.

Royal Decree 208/2022 of 22 March on financial guarantees for waste.

- ✓ In the pipeline.

*Chemicals:*

Royal Decree 656/2017, of 23 June, approving the Regulation on the Storage of Chemical Products and its Complementary Technical Instructions MIE APQ 0 to 10.

- ✓ In compliance with the same.

REGULATION (EU) 2019/1009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 June 2019 laying down provisions on the making available on the market of EU fertiliser products, amending Regulations (EC) No 1069/2009 and (EC) No 1107/2009 and repealing Regulation (EC) No 2003/2003

- ✓ In the pipeline.

*Legionella:*

Royal Decree 865/2003, of July 2003, establishing the hygienic-sanitary criteria for the prevention and control of legionellosis.

- ✓ Complying with all operational notifications and maintenance operations.

*Oil installations:*

Royal Decree 2085/ 1994, of 20 October 1994, approving the Regulation on Petroleum Installations (as amended by Royal Decree 1523/ 1999, of 1 October 1999).

- ✓ Periodic inspections of the installations are carried out periodically.

*Fire-fighting installations:*

Royal Decree 513/2017 on Regulation of fire protection installations.

- ✓ Complying with the conditions for industrial establishments in case of fire.

*Electrical installations:*

Royal Decree Royal Decree 842/2002, of 2 August, approving the Low Voltage Electrotechnical Regulations.

- ✓ Complying with the established requirements in terms of revisions.

Royal Decree 337/ 2014, of 9 May, approving the regulation on technical conditions and safety guarantees in high-voltage electrical installations and its technical instructions.

- ✓ Complying with the established requirements in terms of revisions.

*Thermal installations:*

Royal Decree 1027/2007 approving the Regulation on Thermal Installations in Buildings. The Royal Decree has been drawn up jointly by the Ministry of Industry, Tourism and Trade and the Ministry of Housing.

Royal Decree 178/2021, of 23 March, amending Royal Decree 1027/2007, of 20 July, approving the Regulation on Thermal Installations in Buildings.

- ✓ In January 2017, the thermal installations of several rooms of the work centre were registered.
- ✓ Periodic inspections of the installations are carried out periodically.

*Transport of goods:*

European Agreement concerning the International Carriage of Dangerous Goods by Land (ADR)

- ✓ Complying with its last modification in 2021.

*Water.*

Authorisation from the Confederación Hidrográfica de Duero for the discharge of sanitary waste water into the ground.

- ✓ Submitting the annual declaration report.
- ✓ Complying with the requirements of Royal Legislative Decree 1/ 2016 approving the revised text of the Law on Integrated Pollution Prevention and Control.
- ✓ Submitting to the Junta de Castilla y León the measurements carried out during the year 2021 in compliance with the limits established in the AAI.

Authorisation has been granted by the Duero Hydrographic Confederation for direct discharge into the River Pisuerga via the Duero Canal drain.

- ✓ Submitting the annual declaration report.

By means of file CP 23302-VA, the Confederación Hidrográfica del Duero granted Befesa Escorias Salinas S.A. the concession for the exploitation of groundwater, with a maximum annual volume of 119,300 $m^3$.

- ✓ In January 2021, procedures were initiated with the Duero Hydrographic Confederation to modify the characteristics of the groundwater exploitation concession. A maximum annual volume of 165,600 $m^3$ has been requested.

Order FYM/1088/2020 sets the effluent emission limit value at 31,500 $m^3$ per year.

- ✓ Complying with the new limits.

## 8.-Communication and participation related to environment

Befesa Aluminio CT Valladolid has communication, consultation and participation procedures that define, among other points, the existing form and means for both internal communication (from the Befesa Group with the Escorias Salinas Division, from the General Manager of Escorias Salinas with the plant, and communication with workers and/or their representatives) and external communication (customers, suppliers, investors, authorities, etc.). Throughout the year 2021, no sanctions related to environmental issues or complaints from stakeholders have been recorded.

In order to carry out the consultation and participation of employees and/or their representatives, the Valladolid workplace carries out the following activities:

- **Works council**: The works council together with the company management meets on a regular basis in accordance with current legislation. The minutes of these meetings are published on the notice boards.

- **Hygienic and environmental measurements** according to current legislation and integrated environmental authorisation.
- **Accident and environmental incident investigations** with generation of lessons learned documents.
- **Whistle-blowing channel**, located on the Befesa website (www.befesa.com) through which anyone can anonymously report breaches of the code of conduct.
- **Suggestion box**: There is a suggestion box available to employees in the canteen of the facilities.
- **Environmental competition**: every year the company organises an environmental competition for employees to participate in.
- **Environmental Preventive Observations (OPA)**: visits to the plant to review compliance with environmental management procedures, in which discussions are held with workers and possible opportunities for improvement or deficiencies are recorded.
- **5S**: 5S audits, regulated by Technical Instruction IHSQEESP.07
- **Informal meetings, which can be daily, weekly or monthly, in** which, although workers do not participate directly, demands or suggestions are collected and reviewed and analysed by process managers and shift leaders.
- **Notice boards:** employee participation is encouraged through the publication of tenders, new jobs, information for suggestions of ongoing or planned projects, etc.
- **Psychosocial risk surveys:** every two years, the company carries out a psychosocial risk survey and, depending on the results obtained, an action plan is established if necessary.
- **Environmental triptych and documents of good environmental practices with regard to waste management: this is an** informative document to help workers in the correct classification of waste, about which, if they have any doubts or questions, they can consult the HSQE manager.
- **Format for opportunities for improvement and non-conformities**: this is managed through the continuous improvement procedure. Employees can fill in the corresponding form and put it in the mailbox or hand it in to the person responsible for the process.

## 9.-Other relevant activities in the field of environment.

In accordance with the ISO 14.001:2015 standard and the European EMAS Regulation, Befesa Aluminio CT Valladolid has undergone the corresponding environmental audits, both internal and external, to verify the correct operation of the environmental management system in place. The performance of audits is a key element in verifying the correct performance of each of the processes of the management system. When non-conformities are detected during the course of the audits, corrective actions are established to eliminate these non-conformities. The programme of internal and external audits has been satisfactorily completed during the year covered by this statement.

- Befesa Aluminio CT Valladolid has a $CO_2$ environmental certificate verified under the ISO 14064 greenhouse gas standard, and since November 2016 it has also been certified under the ISO 50.001 standard on energy efficiency in order to reduce energy consumption and, as a result, reduce CO emissions$_2$ into the atmosphere.

- Befesa belongs to and actively participates in the following associations:
    - Spanish Confederation of Metal Business Organisations CONFEMETAL being an active member of the environment committee.
    - Asociación Española de gestores de residuos especiales ASEGRE (Spanish Association of Special Waste Managers): ASEGRE brings together companies in Spain whose activity is the management of hazardous waste.
    - Valladolid Metal Entrepreneurs Association (VAMETAL)

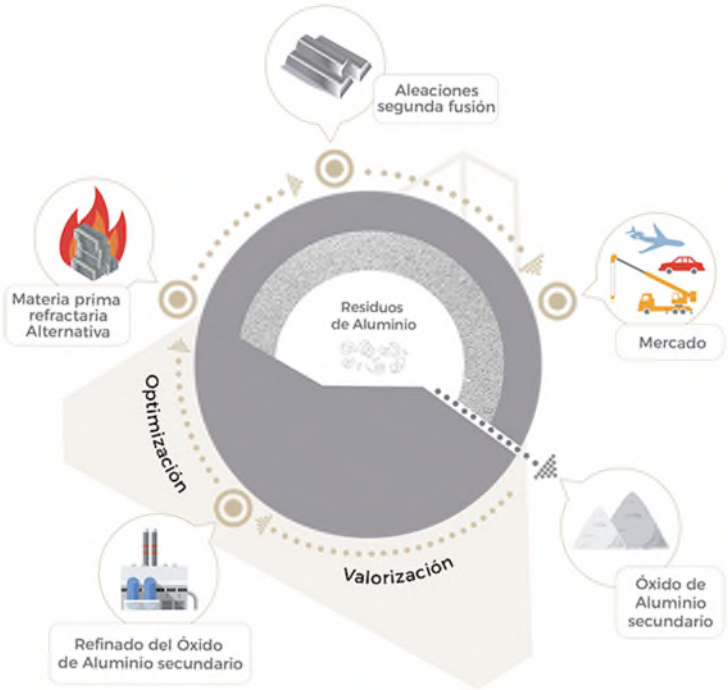
- Competition 1st Edition - BEFESA Environmental Initiative

    - During the year 2021 Befesa has organised a competition to promote the environmental commitment of employees.
    - At Befesa we believe that with the environmental commitment of employees in the community, we can help preserve natural resources and create a positive environmental impact.

- Sustainability is part of Befesa's DNA - we demonstrate our commitment at all levels, to the nature of our business model, to the sustainable way we run our factories and now also by supporting our employees' environmental initiatives by promoting a good cause through a donation.
  The winner of the award chose the Lurgaia Foundation for the donation, which
  will be used to plant the "Befesa Forest" and to contribute to the recovery of a local forest and the improvement of biodiversity in Urdaibai, classified as a Biosphere Reserve by Unesco.


- Befesa regularly participates in R&D&I programmes with different research centres and other European companies, mainly aimed at improving the recycling, valuation and complete use of waste from the aluminium industry.
  - An example of this and related to the Circular Economy is the Life Bauxal II project, which will allow the transformation of a secondary aluminium oxide (paval) into an alternative raw material to bauxite in the manufacture of refractories.
  - More information can be found on the project's website: http://www.bauxal2.com/.

BAUXAL II


Aleaciones segunda fusión
Mercado
Óxido de Aluminio secundario
Refinado del Óxido de Aluminio secundario
Materia prima refractaria Alternativa
Residuos de Aluminio
Optimización
Valorización

## 10.- Next environmental statement.

This environmental statement is intended to inform employees, authorities, customers, suppliers, media and neighbours about our management policy and also to propose a constructive dialogue.

The next validated environmental statement will be made in September 2023.

The environmental verifier validating this declaration is Bureau Veritas Certification, a certification body accredited by ENAC under number ES-V-0003, with registered office at Calle Valportillo Primera, 22-24; Edificio Caoba- Polígono Industrial La Granja 28108 Alcobendas, Madrid.

This declaration is valid for one year from the date of validation.