

## Environmental and Social Review Summary (ESRS) Varmoxz II (14387-01) - Mexico

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### 1. General Information of the Project and Scope of IDB Invest's Environmental and Social Review

This transaction seeks to support Arzyz Industrias, a subsidiary of Arzyz S.A. de C.V. (“Arzyz” or the “Company”), a business engaged in producing aluminum alloys and selling non-ferrous metals in Mexico, to finance the following activities (the “Project”): (i) building and operating a new rotary furnaces plant in Ciénega de Flores, which will be fed with waste generated in Arzyz’s production line, which converts metal scrap into aluminum; and (ii) acquiring the plot adjacent to the existing plant for future expansion.

Arzyz’s plant was built in 1980, and at the beginning worked on recovering zinc from the galvanization sector. This facility is located near the city of Apodaca, close to the city of Monterrey, State of Nuevo León, Mexico, and is currently focused on producing aluminum alloys. The Company has another aluminum smelting and recycling plant in the Ciénega de Flores municipality, 20 km away from the one in Apodaca. This plant, which started operating in February 2022, was partially funded by IDB Invest.

The environmental and social due diligence (ESDD) involved reviewing: (i) the plans for the construction, installation, and operation of rotary furnaces in the plant adjacent to the existing one in Ciénega de Flores; (ii) the design of the rotary furnaces; and (iii) the policies and procedures for the plants in operation. This process also included discussions with Management and the staff involved in the occupational, health and safety (OHS), environmental, social, wellbeing, and sustainability matters in Arzyz, as well as visits to two suppliers in the metal scrap supply chain, and interviews with representatives from the communities near the operations in Apodaca and Ciénega de Flores.

### 2. Environmental and Social Categorization and Rationale

According to IDB Invest’s Environmental and Social Sustainability Policy, the Project was classified as Category B (medium risk) because most of the identified environmental impacts are considered limited and site-specific, and can be easily managed. The environmental, social and health and safety (ESHS) impacts identified for the construction of rotary furnaces include, among other things: (i) the generation of hazardous and non-hazardous solid waste; (ii) air emissions; (iii) noise pollution; (iv) wastewater generation; (v) ground vibration and movement; (vi) vegetation cover removal; (vii) increase in workers’ OHS risks (direct and indirect); and (viii) increase in heavy traffic. The impacts caused during the operation and maintenance (O&M) of the rotary furnaces plant, include: (i) workers OHS risks, (ii) generation of solid hazardous and non-hazardous waste; (iii) an increase in emissions, as well as the use of power, water, and local services; and (iv) potential fires. All these impacts and risks are deemed to be of medium intensity.

The Performance Standards (PS) triggered by the transaction are: PS1: Assessment and Management of Environmental and Social Risks and Impacts; PS2: Labor and Working Conditions; PS3: Resource Efficiency and Pollution Prevention; PS4: Community Health, Safety and Security.

### **3. Environmental and Social Context**

#### **3.1 General characteristics of the Project's site**

The Ciénega de Flores plant, which is in a second development phase (NEST II), will have two lines of furnaces: two rotatory furnaces to produce 30 tonnes and other two with a capacity of 8 tonnes. These lines will have a production capacity of 47,070 tones, which will use the white or grey dross subproducts of the plants in Apodaca and Ciénega de Flores (first development phase or NEST I), and will process aluminum scrap. White or grey dross is a byproduct of the aluminum milling and smelting processes which, although having low metal content, can be recovered to be sold as an alloy. Black dross, a by-product of what is produced in these rotatory furnaces, is classified as hazardous waste.

The installation of both furnace lines is being tested, while the ancillary facilities, such as offices, rest areas, canteens, etc., are almost fully built. The rotatory furnaces will work 24/7 46 weeks a year, as per the provisions in the Environmental Impact Assessment<sup>1</sup> (EIA).

#### **3.2 Contextual risks**

Arzyz's operations are located in the Ciénega de Flores and Apodaca municipalities, State of Nueva León, México, on the border with the USA. The external risks Arzyz is exposed to and that may negatively affect its performance are in order of probability: (i) citizen insecurity, social unrest, high crime rate, inefficient public security forces; (ii) political risk, which is linked to the legitimacy of the elected authorities and that may lead to lack of policy continuity; (iii) access to land, associated with water stress, natural disasters, food insecurity and deforestation; and (iv) possible retaliation against environmental activists and human right violations (freedom of the press, among others.).

### **4. Environmental Risks and Impacts and Proposed Mitigation and Compensation Measures**

#### **4.1 Assessment and management of environmental and social risks**

##### **4.1.a E&S management system**

Arzyz's Comprehensive Management System (CMS) and its environmental, health, safety and wellbeing integral program include certain policies, manuals and procedures implemented by the Company to assess, support, and meet the requirements of the local legislation, as well as

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<sup>1</sup> Note No. SGPA/DIGRA/DG/02271 and the amendment to the authorization in the EIA, in Note No. SGPA/DGIRA/DG/04272.

international standards like ISO 14001:2015 (environmental quality), ISO 45001:2018 (occupational health and safety); ESR (ISO 26001 – social responsibility) and ASI (Aluminum Stewardship Initiative).

Even though the IMS is well structured, Arzyz will update some of its policies and reinforce some of its procedures (stakeholder engagement, external communication, grievance mechanism and regular reporting to affected communities) to align with the international best practices; and will communicate and disseminate the updates internally and externally.

#### 4.1.b Policy

Arzyz has a comprehensive policy that guides the CMS and a social responsibility, environmental, health and safety policy from 2019; together they express the Company's commitment to observing the applicable regulations, assessing and mitigating risks, keeping contact with stakeholders and working with the communities, among other aspects. These policies are disseminated to the staff through its intranet, as well as in onboarding sessions and briefings at the start of the workday, and monthly communication meetings; suppliers, customers, banking institutions and the public in general are informed with signs at the administrative units and the web portal<sup>2</sup>.

#### 4.1.c Identification of risks and impacts

The CMS includes procedures to identify and mitigate risks, as well as to carry out internal audits, management reviews, corrective actions, non-conformity resolutions; to detect risks and opportunities (SWOT analysis<sup>3</sup>); and to prepare matrices to monitor environmental aspects, occupational health and safety (OHS) risks and hazards, and legal requirements, etc. The risks related to health, safety, wellbeing and the environment are documented in the matrix and the CMS procedures. These procedures are aligned with standards ISO 14001:2015 and 45001:2018.

On the other hand, there are some requirements from federal legislation<sup>4</sup> that the Company must manage to identify the risks and impacts associated with the key activities at its operating plants (Apodaca and Ciénega de Flores): a contingency plan, personal protection equipment (PPE), and noise and emissions monitoring. The environmental management program in the amendment to the EIA for the Ciénega de Flores plant has management measures to control the identified impacts.

The most important impacts identified for the Ciénega de Flores plant in the EIA for the construction phase are linked to the following activities: stripping and clearing; digging and cutting; filling and backfilling; and foundation laying. The impacts associated with the operation and maintenance phase include: air emissions, solid waste generation, noise and water pollution. The EIA has an environmental surveillance program containing preventive and mitigating measures as well as an activity schedule and indicators to approach them.

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<sup>2</sup> <https://www.arzyz.com/>

<sup>3</sup> Strengths, weaknesses, opportunities and threats.

<sup>4</sup> Federal Labor Law (section 153.A), NOM-043-SEMARNAT-1993, NOM-081' SEMARNAT-1994, Rulebook for the Operation of the State Civil Protection System, section 23.

#### 4.1.c.i Direct and indirect impacts and risks

As part of its CMS, Arzyz has developed a risk identification system, which is regularly reviewed and updated with internal and external input, and is part of the continuous improvement plan. The procedures also apply to contractors and subcontractors, and the supply chain.

The construction of the Ciénega de Flores plant would create certain risks (moderate-low) that are associated with traffic accidents due to the increasing traffic of trucks and heavy machinery. Those impacts of the operation and maintenance phase are linked with emissions, OHS issues, and the increase in road traffic. In this regard, Arzyz will develop a road safety procedure for the Ciénega de Flores plant and will continue working on and improving the emissions report and the accident prevention procedures.

#### 4.1.c.ii Analysis of alternatives

The analysis of alternatives for the Ciénega de Flores plant included factors like site availability; access roads; public utilities supply (natural gas, drinking water, electricity), the authorized use of the land (industrial purpose), the use of raw materials; and the capability to reduce emissions and increase energy and water efficiency.

#### 4.1.c.iii Cumulative impact analysis

Owing to the characteristics of the Project, its cumulative impact is considered marginal.

#### 4.1.c.iv Gender risks

No Project activity will encourage gender violence. The Project is not expected to have different impacts on men or women, because Arzyz promotes non-discrimination and equal opportunities when searching for and promoting talent. The Company is working on a non-discrimination policy.

#### 4.1.c.v Gender programs

Arzyz has incorporated provisions to assure its female workers are properly equipped with suitably adapted PPE; that changing rooms and showers are differentiated by gender and work area; that zero tolerance for gender violence is enforced in its Code of Ethics; and that local legislation is complied with. Any behavior that goes against the guidelines set up in the Code of Ethics is investigated by a third party.

#### 4.1.c.vi Climate change exposure

While the Project is overall considered to be moderately exposed to climate threats, water stress is high in the north of Mexico and particularly in Ciénega de Flores, which has historically endured

droughts. Considering a high-emission pathway scenario (RCP 8.5<sup>5</sup>), the duration and frequency of these events will tend to increase by 25% to 50% by the turn of the century. In an RCP 8.5, there is high exposure to heatwaves. The Project is sensitive to these risks because they are related to water availability, and the plant uses large amounts of it for its processes. Heat stress exposure can also negatively affect the workers' health and productivity.

In order to manage these risks, Arzyz has adopted efficient technologies in its processes, including water recirculation and treatment plants, which have helped increase water efficiency and reduce its consumption and dependence on external sources.

However, the Company will develop and adopt a water management plan to increase water efficiency, which it will communicate to the relevant stakeholders.

The Project is consistent with Mexico's adaptation plans and priorities, as reflected in the country's national determined contributions (NDC) and its adaptation communication (ADCOM), which ratify, among other things, the responsible use of water resources through: (i) actions towards the sustainable utilization of water from its several wasteful uses, with a climate change approach; and (ii) the increase in the volumes of urban and industrial wastewater to be treated in order to assure water reaches settlements of over 500,000 people in good quantity and quality. Moreover, the productive sectors, like the manufacturing industry, are one of the country's adaptation priorities, so reducing their vulnerability is part of one of the goals set in Mexico's Special Climate Change Program.

As to mitigating the climate risk, the Project is expected to account for it as: (i) production is based on maximizing the use of recycled material, and (ii) the production lines in the rotatory furnaces use cutting-edge technology for efficient performance. Also, Arzyz is still identifying opportunities to reduce its emissions even further in line with the decarbonization goals of the sector.

#### 4.1.d Management programs

Arzyz has plans, programs, and actions to prevent, control, and mitigate the adverse effects associated with its operations in Apodaca and Ciénega de Flores. The CMS is based on four pillars: a quality management system, an environmental management system, an OHS management system, and the goal to be a socially responsible company (including the Iniciativa de Administración de Aluminio [ASI, the Aluminum Management Initiative]). Arzyz's CMS is made up of over 50 processes and their related procedures and contains assessment and continuous improvement processes. The procedures, that assign responsibilities to manage the E&S risks of the Project activities, are mostly required by the local (federal, state, or municipal) regulations, the CMS or standards ISO 9001 (quality), ISO 45001, and ISO 14001, which were certified in 2022 and are valid for three years. The operations in Apodaca and in Ciénega de Flores (NEST I) got this certification.

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<sup>5</sup> The RCP 8.5 (Representative Concentration Pathways, RCP) scenario considers a steady increase by the end of the 21st century of 8.5 W/m<sup>2</sup>, which is the worst case scenario in terms of emissions.

Arzyz also got the socially responsible company (ESR, for its acronym in Spanish)<sup>6</sup> certification and the one from Top Employers<sup>7</sup>, whereas the ASI certification is in progress.

#### 4.1.e Organizational capacity and competency

Arzyz's organizational structure defines the roles and responsibilities for the environmental, social, occupational health and safety, wellness and labor performance of its staff; the area is led by the Environmental, Health and Safety and Wellbeing (EHSW) Department. The area was created in 2022 to deal with core business issues, like ISO certifications, tighten occupational health and safety controls, diminish emissions, and prepare a sustainability report for Arzyz; it engages personnel from the Industrial Security, Occupational Health, Wellbeing, Food Services, and Certifications and Management Systems areas.

In order to comply with the requirements of the federal legislation, the CMS and the ISO certifications, Arzyz has an annual training plan in over 40 topics; the most important ones (largest amount of trainees) are: awareness raising (comprehensive policy, risks, implications of not complying with the CMS requirements, occupational health and safety goals); leaks and spills; use of personal protective equipment (PPE); CMS pillars; introduction to ISO 14001 and 45001; chemical substances handling; work at height; and safety in confined spaces. In general terms, Arzyz has executed its training plan as expected.

#### 4.1.f Emergency preparedness and response

Arzyz has contingency plans in place for the civil protection of the operating plants in Apodaca and Ciénega de Flores, which were prepared following the Rulebook for the Operation of the State Civil Protection System. The plans help identify internal and external risks and potential adverse scenarios; determine training needs; require carrying out drills and include recovery programs. Given that the rotatory furnaces plant in Ciénega de Flores does not yet have a contingency plan, it will be created and the staff trained accordingly.

#### 4.1.g Monitoring and review

Arzyz has monitoring matrices for the legal, environmental, and labor requirements, which are continuously updated and assessed. The results of these processes are part of CMS's continuous improvement actions.

The CMS has a review and improvement plan with key performance indicators, a corrective actions procedure, and an internal audit procedure, which enable the review and monitoring of the management system execution. Any change required in the CMS will be executed following the change management procedure.

Arzyz is audited once a year as required to renew its ISO certifications. As a result of this external monitoring and review process, an action plan is implemented to close any management gaps that

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<sup>6</sup> Certification granted by Centro Mexicano para la Filantropía (CEMEFI)

<sup>7</sup> <https://www.top-employers.com/en/about-us/>

could have been identified. In November 2022 the Company was audited for the ASI certificate; this certification is expected to be extended to the Ciénega de Flores plants in 2024.

#### **4.1.h Stakeholder engagement**

There is modest stakeholder engagement, usually in the form of response to support requests as part of the enterprise's social responsibility activities. The Company keeps a log of external communications.

The Company's web page shows a local phone number, an email address, and an online form as forms of contact<sup>8</sup>.

#### **4.1.i External communication and grievance mechanisms**

External communications occur following the provisions in its external stakeholders management procedure and its instructions for assisting external stakeholders in person, which includes an engagement record.

The information about the CMS and Arzyz performance is shared externally through the Company's website and the social responsibility activities involving external and internal agents. The Purchase and Internal Control department is the point of contact for suppliers, whereas contractors should contact the Safety and Intelligence, and EHSW departments.

Generally speaking, the Company holds a good-neighbor relationship with the stakeholders. However, some groups do not know enough about Arzyz's activities. To change this, the Company will improve its external stakeholder management procedure, based on a proper map of the stakeholders and with key messages for each one.

In late 2023, the Company is expected to publish its first Sustainability Report, using the format of the Global Reporting Initiative (GRI). The report highlights Arzyz Industrias's commitment to sustainability and includes such topics as energy efficiency, emission control, and circular economy<sup>9</sup>. The Sustainability Report covers all operations at Apodaca and Ciénega de Flores.

## **4.2 Labor and working conditions**

### **4.2.a Working conditions and management of worker relationships**

Arzyz employs 476 people (359 are unionized) at Ciénega de Flores, who receive a monthly pay above the minimum salary. The rotatory furnaces plant will generate about 210 positions during the operation phase and 315—mainly contractors—during the construction phase.

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<sup>8</sup> [www.arzyz.com](http://www.arzyz.com)

<sup>9</sup> A relevant issue, as the Company uses raw material which is 50%-76% recycled aluminum (scrap)

Arzyz employees have medical professionals available to them permanently in both plants (Apodaca and Ciénega de Flores), led by a physician and supported by a nursing team.

Arzyz provides its employees with: (i) annual full medical checkups; (ii) regular training briefings; (iii) canteens in both plants; (iv) PPE; (v) hydration points; (vi) rest areas; (vii) memberships at leisure centers; and (viii) a wellness center where they can attend training and recreational activities.

#### 4.2.a.i Human resources policies and procedures

Arzyz has human resources procedures, including: a general human resources policy; a policy for recruiting and managing excellence; terms of employment, onboarding, compensation, and termination; and a Code of Ethics, among others. All employees have a written contract and get a copy of the Code of Conduct, as well as of the terms of employment describing work schedules, off-work days, payment of overtime, their rights and obligations, disciplinary measures, and causes for termination.

In early 2023, Arzyz opened a wellness center at HQ, where, as part of the Company's health vision, all staff is offered training and leisure activities.

#### 4.2.a.ii Working conditions and terms of employment

The work week comprises 48 hours for the day shift, 45 hours for the mixed shift and 42 hours for the night shift, with a day off per week and half an hour a day for food, which is provided by the Company at the canteen in the plants. In the last five years, there have been no strikes, protests, or work-related problems.

#### 4.2.a.iii Workers' organizations

Most of Arzyz's workforce is unionized. The union has a representative at each plant, who is approached by the workers with their concerns. Workers have freedom of association with the union. The work agreement with the union is reviewed annually in terms of inflation-led adjustments and benefits. The Company has a good relationship with the union; no work-related conflict has arisen.

#### 4.2.a.iv Non-discrimination and equal opportunity

Employees enjoy equal opportunities, regardless of their gender, sexual preference, or ethnicity. Arzyz has a Code of Ethics (handed over to all employees), which describes the rules of conduct at work. The Company is currently working on a non-discrimination policy.

#### 4.2.a.v Retrenchment

Arzyz has increased its workforce in the last few years. In 2021 100 people were hired: 50 in operations and 50 in administrative tasks. Building the Ciénega de Flores plant required hiring 476 additional workers.



#### 4.2.a.vi Grievance mechanism

Arzyz has a grievance mechanism in place for its workers, which is disclosed through posters, suggestion boxes and several sets of instructions. They have information about how to submit a grievance, as well as the Company's responsibilities to receive the grievances and respond to them. The boxes and hotline (available 24 hours) to report grievances, which are part of the mechanism, offer the option to submit them anonymously. This mechanism, managed by a third party (Deloitte), includes a telephone line, an email address and a mailbox. The grievance mechanism will be also implemented at the rotatory furnaces plant.

#### 4.2.b Protecting the Workforce

Arzyz employs a physician to handle the occupational health and wellbeing, who supervises the nursing team in each plant, and, together with the food services and industrial security areas, sets the best practices to protect the employees' health, including the provision of hydration points and PPE and adequate breaks to avoid heat strokes, dehydration, and other typical industry ailments.

All Company employees have private insurance and, as part of the wellbeing program, they are supported in such aspects as nutrition, exercise (gym membership), and mental health, and get financial support if they decide to specialize or get trained.

There are six routes to transport workers. All routes are completed twice, in the morning and in the evening.

##### 4.2.b.i Child labor

Arzyz does not support or tolerate child labor in its operations or in those of third parties. This is so reflected in its Code of Conduct, its mission and vision, and business principles. At the interviews performed as part of the hiring process, the applicants are requested to provide proof of age with a copy of the card only issued for over 18 years by the National Electoral Institute (INE).

##### 4.2.b.ii Forced labor

Arzyz does not support or tolerate forced labor in its operations or in those of third parties. This is reflected in its Code of Conduct, its mission and vision, and business principles.

#### 4.2.c Occupational health and safety

Early in 2022, ARZYZ adopted the international HOP (Human, Organizational Performance) methodology as its risk prevention corporate strategy. This methodology makes it possible for the Company to identify risks systematically and early in its processes, procedures, and systems, as well as to evaluate people's behavior to determine the root causes of the accidents. The methodology applies four principles: (i) everyone makes mistakes; (ii) all mistakes can be prevented; (iii) the environment alters people's behaviors; and (iv) how people should react to mistakes and failures. Moreover, Arzyz has a risk matrix per position and a list of the minimum PPE required to avoid or

mitigate those risks. This methodology, together with the risk matrices, helped Arzyz to lower the accident rate at the Apodaca plant from 3.29 to 1.32 and from 6.99 to 2.25 at Ciénega de Flores plant between May 2022 and May 2023. The Company aims to get its accident rate down to 1.57 in 2025.

Arzyz's workers are trained in questions related to health, environment and occupational safety, among others, depending on the area they work at (use of extinguishers, use of forklifts, work at heights, leaks and spills, etc.). Additionally, safety briefings are given every day before the workday starts.

The firefighting system for the rotatory furnaces plant was designed by an external consulting firm considering: (i) the Patronato de Bomberos de Monterrey regulations in place, (ii) the NFPA standards<sup>10</sup>, and (iii) the local standard NOM-002-STPS-2010.<sup>11</sup>

#### 4.2.d Provisions for people with disabilities

The CMS communication mechanisms and other Arzyz policies and procedures consider diversity in terms of gender, language, culture, literacy, and disability. The Company's Code of Ethics states that it does not discriminate against workers with disabilities.

#### 4.2.e Workers engaged by third parties

The personnel engaged with third parties have the same privileges and obligations as those directly employed by Arzyz. Arzyz's CMS has a procedure to control the access and activities of external workers (contractors, suppliers, and drivers), which outlines contractors' rights and obligations.

#### 4.2.f Supply chain

Arzyz has a responsible sourcing and suppliers overarching policy that helps assess about 58 suppliers of metal scrap, comprising 51% of Mexican suppliers (Nuevo León, Mexico City, Puebla, Jalisco) and 49% of foreign suppliers, located in the USA and the UAE. All suppliers are registered through a form, which is completed after it is checked that they comply with all legal requirements for operation, they have articles of incorporation, submit a valid power from their legal representative and a letter from their shareholders, they have submitted documents that prove their tax position, they have submitted evidence of compliance with the relevant tax obligations and they have agreed to the privacy disclaimer. These metal scrap suppliers have no direct contact with scavengers, but they buy scrap as it is generated.

Between 85% and 90% of the raw materials for the rotatory furnaces plant will come from residues generated at the Apodaca and Ciénega de Flores plants, which will be complemented by residues from other plants nearby (white dross and shredding line) and, to a lesser extent (10-15%), with scrap. The scrap volume is expected to increase to 50% at least in the first year of operation. In other

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<sup>10</sup> National Fire Protection Association; NFPA 14, Standard for the installation of a standpipe and hose systems, and NFPA 20, Standard for stationary pumps for fire protection.

<sup>11</sup> Mexican Standard NOM-002-STPS-2010, Safety Conditions – Fire Protection and Prevention at the Work Sites.

words, Arzyz operating plants will be the largest raw material suppliers for the rotatory furnaces plant.

### **4.3 Resource efficiency and pollution prevention**

The Project has as main components pollution prevention and circularity, as the rotatory furnaces will recover the remaining aluminum from the Apodaca and Ciénega de Flores plants. The Ciénega de Flores plants have been designed with efficient technology to reduce supplies (raw material, water, energy), emissions, and waste, while increasing the quantity of end product.

#### **4.3.a Resource efficiency**

One of the main resources used by Arzyz to produce aluminum is natural gas (or dry gas). In 2022, about 25,006,081 m<sup>3</sup> of gas were used to produce 109,901 tonnes of aluminum in both operating plants (Apodaca and Ciénega de Flores). Other resources required by Arzyz were liquified gas for cars, motorcycles and forklifts (688,812 l); diesel fuel (166,508 l); electrical power (20,758.20 MWh) and water (89.720 m<sup>3</sup>). The plant in operation in Ciénega de Flores uses cutting-edge technology that allows for higher resource efficiency, whereas the plant in Apodaca implements adaptation plans to increase its efficiency and reduce pollution.

The rotatory furnaces plant to operate in Ciénega de Flores will also use next-generation technology to improve the efficiency of its processes. The water used at this plant will be processed by the Monterrey Water and Sewage System; the plant will also have a closed-loop wastewater system to help reduce both the consumption of water and wastewater generation.

##### **4.3.a.i Greenhouse gases**

Arzyz keeps a record of greenhouse gas (GHG) associated with the production of aluminum ingots, including the emissions caused by the use of diesel fuel, LPG and gasoline. The total emissions for 2022 amounted to 57,910.20 tCO<sub>2</sub>eq, which means about 0.42 tCO<sub>2</sub>eq/tonne for the Ciénega de Flores plant and 0.71 tCO<sub>2</sub>eq/tonne for its plant in Apodaca (scope 1 and 2 emissions). As it operated in a fossil-fuel-intensive industry, Arzyz will prepare a GHG emission reduction plan.

The GHG annual emissions from the natural gas furnaces and its transportation fleet amounts to about 48,873.68 tCO<sub>2</sub>eq in scope 1. Scope 2 emissions (purchase of electrical power) totaled 9,036.52 tCO<sub>2</sub>eq.

Since April 2023, the plant in Apodaca (Varmoxz S.A. de C.V.) has been part of a voluntary program to reduce emissions called “Programa Integral de Gestión Estratégica de la Calidad del Aire Metropolitana de Monterrey” (PIGECA, Comprehensive Program to Strategically Manage Air Quality in Metropolitan Monterrey), fostered by the Environmental Office of the State of Nuevo León.

The Project, which seeks to increase production capacity to 60,000 tonnes/year, will lead to increasing emissions by 23,979 tCO<sub>2</sub>eq/year or 0.40 tCO<sub>2</sub>eq/tonne when in operation. This is a conservative calculation assuming certain installed production capacity (5,000 tonnes/month) and

electrical power consumption of 10,800 MWh. The GHG generation during the construction period will not be significant.

#### 4.3.a.ii Water consumption

For the cooling system, the Ciénega de Flores plant, which hosts rotatory furnaces, uses industrial water coming from the municipal distribution system. This plant also has a wastewater treatment system (reverse osmosis system) and a water recirculation mechanism. Water consumption at the rotatory furnaces plant is expected to be 39,588 m<sup>3</sup> 9.588/year for a production of 47,070 tonnes/year of aluminum alloy. In other words, 0.84 m<sup>3</sup> of water consumed per tonne of aluminum alloy produced.

Given the climate risk assessment for this transaction and the social concern for water scarcity<sup>12</sup>, Arzyz will prepare a water resources management plan to include the characteristics and amount of water used and wasted, will suggest saving and efficiency measures, and will communicate them to the stakeholders, when relevant.

#### 4.3.b Pollution prevention

A record of air emissions at Arzyz's plants in operation is submitted every two weeks to the Municipal Environmental Office. The Apodaca and Ciénega de Flores plants have emission control equipment or systems (filters and collectors at each furnace). The environmental checkpoints comply with municipal and federal legislation. The emission reports contained in the Annual Operation Document (COA, for its acronym in Spanish) and included in the Annual Monitoring Report (particulate matter) show the Company is compliant with Mexican regulations and the World Bank's Environment, Health and Safety General Guidelines for particulate matter.

This measurement and monitoring process is expected to be used at the rotatory furnaces plant as well. However, Arzyz will expand its emission monitoring procedures to include the relevant parameters and comply with the limits set at the [Environment, Health and Safety General Guidelines](#) and the [Environmental, Health, and Safety Guidelines for Metal, Plastic, and Rubber Products Manufacturing](#) of the World Bank Group.

#### 4.3.b.i Wastes

As part of the procedures contained in its CMS, Arzyz has a waste management and handling procedure.

In compliance with the environmental legislation, the COA of each Arzyz plant (Apodaca and Ciénega de Flores) reports on the Company's special-management, hazardous and non-hazardous solid waste as well as the wastewater discharges to the municipal sewage system. Also, as part of the CMS, the Company has hazardous and non-hazardous waste management processes.

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<sup>12</sup> One of the conclusions of the social impact assessment (SIA) conducted by an external consultant for Arzyz in December 2022.

The main waste from the operation of the rotatory furnaces is estimated to be black dross (42,905 tonnes/year) and dust from the furnace collectors (1,980 tonnes/year). Like hazardous and non-hazardous waste, they will be collected by TRISA COMERCIAL S.A. and disposed of as per the local regulations.

#### 4.3.b.ii Hazardous materials management

Arzyz keeps a monthly record of its hazardous waste: fluorescent lamps, used lubricants, rags or cardboard soaked in oil and paint, oily plastic or metallic containers, solvents and paints, black dross, and sharp, cutting or sanitary (from nursing activities) waste. Hazardous waste is collected by TRISA COMERCIAL S.A. and disposed of as per the local regulations.

#### 4.3.b.iii Management and use of pesticides

Arzyz promotes the biological control of pests, with frequent fumigations in its sites following the recommendations in the EIA. FAUAD is the company in charge of the fumigations; it holds a sanitary license and hands Arzyz a record sheet with all the active ingredients used and authorized by the governmental authority.

### **4.4 Community health, safety and security**

#### 4.4.a Community health, safety and security

The Ciénega de Flores plant is located in an industrial area, with no residential homes nearby. In 2022, Arzyz hired an external consulting company to prepare the Social Impact Assessment (SIA), as part of the process to get the ASI certification. The assessment compiled in-depth information, determining that there are five communities (Ciénega de Flores, Salinas Victoria, Lázaro Cárdenas, Salinas and La Aurora) in the direct and indirect areas of influence of the Ciénega de Flores and Salinas Victoria municipalities.

The SIA found the following positive social impacts: (i) employment creation; (ii) goods and services demand in the Project area of influence; (iii) economic benefits derived from taxes and permits; and (iv) stronger work skills. The negative impacts identified by the SIA, which are considered of moderate-low intensity, include: (i) social concern for the pollution caused by the Project activities; (ii) impact on the community health and safety; (iii) social concern about water scarcity exacerbated by industrialization of the area; (iv) increasing traffic in federal roads; (v) damages to federal roads.

Arzyz will improve its stakeholder assistance management procedure based on the recommendations in the SIA to include key messages and disseminate the measures the Company is adopting to mitigate the negative impacts and magnify the positive ones.

#### 4.4.a.i Infrastructure and equipment design and safety

During Project construction, the material transportation service, acquired from specialized companies, will have preset schedules.

When in operation, the Project will produce air emissions due to the use of natural gas in the smelting process. In order to mitigate this, Arzyz installed collectors and filters to keep the polluting particles generated in the smelting process. The effectiveness of this measure is monitored annually following the provisions in the single environmental licenses (*Licencias Ambientales Únicas*). The raw material for the rotatory furnaces (grey dross) will be collected from the Ciénega de Flores adjoining plant.

Arzyz will produce a road safety procedure to transport raw materials, hazardous waste and end product, which will be disseminated among the different stakeholders.

#### 4.4.a.ii Hazardous materials management and safety

Hazardous waste is collected by TRISA COMERCIAL S.A. and disposed of as per the local regulations.

#### 4.4.a.iii Ecosystem services

After 20 interviews with different stakeholders from the Project direct and indirect areas of influence in Ciénega de Flores, the SIA determined that no natural resources are being used by the local settlers.

#### 4.4.a.iv Community exposure to disease

Although the SIA reported some concerns among community settlers and authorities regarding the potential impact on health due to the increasing industrialization of the area<sup>13</sup>, no disease or ailment pattern could be established in the area of influence.

#### 4.4.a.v Emergency preparedness and response

As part of its comprehensive management system, Arzyz has several procedures to prepare for and respond to emergencies: procedures for medical events, spills of chemicals, evacuation, firefighting events, explosive threats, and hostage-taking or firearm-pulling events. They will be adapted to the rotatory furnaces plant operations involving the relevant stakeholders, and will require drills as part of its continuous improvement.

#### 4.4.b Security personnel

The security personnel is directly hired by Arzyz. Security guards will not carry guns and will mainly control the entrance to the facilities. Arzyz has also installed a closed circuit camera system as a security mechanism.

### 4.5 Land acquisition and involuntary resettlement

The acquisition of land has followed a voluntary sale process that has not created any economic or physical displacement.

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<sup>13</sup> Not necessarily related solely to Arzyz operations.

#### **4.6 Biodiversity conservation and natural habitats**

The Project will not affect any sensitive natural or critical habitats, or places with high biodiversity.

#### **4.7 Indigenous peoples**

After reviewing the secondary information from the National Statistics and Geography Institute (INEGI, for its acronym in Spanish), it was determined that the Project could impact directly on four settlers from La Aurora indigenous community, located 600 m away from the Ciénega de Flores plant. However, the SIA concluded that, in early 2022, the precarious residence of these four people had been sold for the construction of a factory; therefore, the Project will not affect indigenous communities or populations.

#### **4.8 Cultural heritage**

The Project will not affect any cultural heritage.

### **5. Local Access of Project Documentation**

The documentation related to the project may be accessed to using the following link: <http://www.arzyz.com/> or in the [EIA<sup>14</sup>](#).

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<sup>14</sup> <https://apps1.semarnat.gob.mx:8443/dgiraDocs/documentos/nl/estudios/2022/19NL2022I0003.pdf>