

Luxembourg, 9 December 2025

**Public**

## Environmental and Social Data Sheet<sup>1</sup>

### Overview

Project Name:	TECHEU ROSI PV PANEL RECYCLING (IEU GT)
Project Number:	2022-0882
Country:	Spain, Germany and France
Project Description:	The Project aims to finance the construction of two commercial plants, located in Spain and Germany, for the recycling of end-of-life photovoltaic panels into high-quality secondary raw materials, and investments in the associated research and development activities at the demonstration plant in France.
EIA required:	yes
Invest EU sustainability proofing required	yes
Project included in Carbon Footprint Exercise <sup>2</sup> :	yes

### Environmental and Social Assessment

The Company ROSI S.A.S., founded in 2017 in Grenoble, aims to offer the photovoltaic (PV) industry an innovative solution for its production and product waste, thus contributing to enhance the efficiency of the European PV and raw material industry.

ROSI has developed an innovative process that enables the recycling and revalorisation of high purity raw materials such as silicon, copper, aluminium, silver and glass (notably silicon metal, copper and aluminium are on the EU critical raw material list). Currently available PV panels recycling technologies do not ensure the full circularity, as these are largely based on mechanical processes, which do not allow to separate individual high value materials. ROSI's process will allow for the revalorisation and usage of these secondary materials across various strategic technology applications within the EU, lowering the need for raw material imports in European industries.

The Project aims to finance the construction of two commercial plants for the recycling of end-of-life photovoltaic panels. The first plant is located in Spain (input capacity 10,000 t/y), and the second in Germany (input capacity 30,000 t/y). The Project is complemented by investments in the associated research and development (RDI) activities at the demonstration plant in France (input capacity 5,000 t/y).

<sup>1</sup> The information contained in the document reflects the requirement related to the environmental, social and climate information to be provided to Investment Committee as required by the Invest EU Regulation and it represents the equivalent of the information required in the template of the InvestEU sustainability proofing summary

<sup>2</sup> Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO<sub>2</sub>e/year absolute (gross) or 20,000 tonnes CO<sub>2</sub>e/year relative (net) – both increases and savings.

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The investments contribute to the transition towards a circular economy by recovering materials that can be used as secondary raw materials, reducing waste disposal in landfills and waste incineration, and lowering the greenhouse gas emissions associated with the production of virgin raw materials.

The Project, by increasing material recovery, aligns with the EU waste hierarchy, the Waste Framework Directive (2008/98/EC), the Waste Electrical and Electronic Equipment (WEEE) Directive (2012/19/EU), the EU Landfill Directive (1999/31/EC) and national regulations. It also supports the transition to a circular economy, in line with the EU Circular Economy Action Plan and the European Green Deal, particularly by advancing the manufacturing of recycled raw materials and diverting waste from landfill disposal.

In Spain, the Project aligns fully with the Spanish Circular Economy Strategy (España Circular 2030)<sup>3</sup>, the National Waste Management Plan (PEMAR)<sup>4</sup>, the Regional Circular Economy Strategy<sup>5</sup> and the Regional Waste Management Plan<sup>6</sup>.

In Germany, the Project aligns fully with the German Circular Economy Strategy (Nationale Kreislaufwirtschaftsstrategie 2024)<sup>7</sup> and the Regional Waste Management Plan (Abfallwirtschaftsplan für Baden-Württemberg 2024)<sup>8</sup>.

In France, the Project aligns fully with the National Waste Prevention Plan (Plan national de prévention des déchets 2021-2027)<sup>9</sup> and the Regional Plan for Economic Development and Innovation (Schéma Régional de Développement Economique, d'Innovation et d'Internationalisation (SRDEII) 2022-2028)<sup>10</sup>.

## Environmental Assessment

### Spain

The investments under this operation fall under Annex I of the Environmental Impact Assessment (EIA) Directive 2011/92/EU as amended by Directive 2014/52/EU, transposed to the Spanish Legislation by the Law 21/2013<sup>11</sup>, including its subsequent amendments. Therefore, the facilities require EIA procedures. The EIA report for the Spanish plant has been submitted to the competent authority (CA) (Aragonese Institute of Environmental Management, INAGA) for approval. A public consultation has been carried out with positive outcome. The EIA report has been shared by the promoter and reviewed by the EIB. The Environmental License approved by the CA is a condition for the first disbursement of this plant. The conditions on the permit will require the facility to comply with the relevant EU legal frameworks.

The EIA report states that the Project involves the development of an industrial facility within an existing industrial area, the "Venta del Barro" industrial estate, in Puebla de Híjar in Teruel. The new plant will be developed within an existing building on the plot, with some additional annexes and a new warehouse for photovoltaic modules in the vacant area. During construction, temporary negative impacts are expected, such as air and noise emissions, site disturbance, resource consumption, vegetation removal, waste generation, and traffic disruption. In the operational phase, impacts will include air and noise emissions, light pollution,

<sup>3</sup> [España Circular 2030](#)

<sup>4</sup> [230705 nuevo PEAR IP. Revisado.pdf](#)

<sup>5</sup> [Economía Circular. Estrategia Económica.. Gobierno de Aragón](#)

<sup>6</sup> [Plan de gestión integral de residuos. Gobierno de Aragón](#)

<sup>7</sup> [Nationale Kreislaufwirtschaftsstrategie](#)

<sup>8</sup> [Abfallwirtschaftsplan für Baden-Württemberg 2024](#)

<sup>9</sup> [Plan national de prévention des déchets 2021-2027](#)

<sup>10</sup> [SRDEII Region Auvergne-Rhône-Alpes](#)

<sup>11</sup> The facility falls under Annex I, section 4.1, according to the environmental regulations in the Autonomous Community of Aragón, under Law 11/2014 on Environmental Prevention and Protection of Aragón.



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landscape effects, resource consumption (energy, water, raw materials), and waste and wastewater generation.

Mitigation measures during the construction phase focus on controlling air quality through low-emission equipment, protecting water via dust suppression and stormwater controls, managing waste properly, reducing noise, preserving biodiversity, and ensuring health and safety protocols for workers. During the operation phase, efforts continue with active air filtration, emissions monitoring, onsite wastewater treatment, spill containment, regular water quality checks, rigorous waste management, noise control, ongoing biodiversity protection, and enforcement of health and safety for personnel.

All residual effects are considered compatible or moderate due to the plant's location in an industrial park and the implementation of preventive and corrective measures, including Best Available Techniques (BATs).

The municipality of La Puebla de Híjar falls within the Habitat Conservation Plan for the Lesser Kestrel (*Falco naumanni*) in Aragón; however, the project area is confirmed not to be within the species' Critical Area, according to data from the Spatial Data Infrastructure of Aragón (IDEAragón<sup>12</sup>).

The overall environmental evaluation concludes that the project's impact is compatible with its surroundings and beneficial for the economy of La Puebla de Híjar and its surrounding areas. The activity will generate new employment opportunities, strengthen the local industrial sector, and address the urgent need for photovoltaic panel recycling facilities, being one of the first plants of this kind in Spain.

Moreover, the EIA report addresses aspects related to the Industrial Emissions Directive (IED) 2010/75/EU by outlining expected emission levels, describing proposed pollution control measures, and referencing compliance with EU and Spanish environmental regulation.

An Environmental Monitoring Plan (EMP) will be implemented to track compliance with the environmental conditions imposed in the Environmental Authorization.

### Germany

The investments under this operation fall under Annex I of the Environmental Impact Assessment (EIA) Directive 2011/92/EU as amended by Directive 2014/52/EU, transposed to the German Legislation by the law "Gesetz über die Umweltverträglichkeitsprüfung (UVPG)" of 12.02.1990<sup>13</sup>.

In Germany, the Project will deploy an industrial facility in an existing industrial area in Baden-Württemberg. The EIA report is being drafted. The submission to the bank of the EIA report and the Environmental Permit approved by the CA are conditions for the first disbursement of this plant. The conditions on the permit will require the facility to comply with the relevant EU legal frameworks.

The project's alignment with the Industrial Emissions Directive (IED) 2010/75/EU, transposed to the German Legislation by the law "Bundes-Immissionsschutzgesetz – BImSchG" is to be confirmed.

### France

The Project will deploy investments in the associated RDI activities at the demonstration plant in France. An EIA has been conducted on the demonstration plant, and the environmental permit has been submitted by the French competent authorities on October 25, 2022. The plant

<sup>12</sup> [Welcome to ICEARAGON ICEARAGON](#)

<sup>13</sup> [UVPG - Gesetz über die Umweltverträglichkeitsprüfung](#)



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is fully authorised and operational, with all required mitigation measures in place. It operates in accordance with applicable environmental regulations and is implementing an Environmental Management Plan to ensure ongoing compliance and monitoring.

### **Climate Assessment**

By recovering high-quality secondary raw materials from end-of-life PV panels, the project will mitigate environmental and climate change impacts of current waste treatment practices, notably landfilling and incineration of PV panels recycling residues, while reducing greenhouse gases (GHG) emissions derived from the production of virgin raw materials. Therefore, the project will contribute to Climate Change Mitigation.

All Project components will be located within industrial areas, requiring no additional climate adaptation measures beyond the engineering solutions ensuring compliance included in existing building codes and safety regulations.

### **EIB Paris Alignment for Counterparties (PATH) Framework**

The Project is "Paris Aligned" and in line with the EIB Group Climate Bank Roadmap 2021-2025. The counterparty ROSI S.A.S. is in scope and screened out of the PATH framework, because it is not considered high emitting or high vulnerability.

### **EIB Carbon Footprint Exercise**

The Project's carbon footprint is based on the estimation of the greenhouse gas (GHG) emissions associated with the new facilities, compared to a baseline scenario involving the equivalent raw materials extraction, the mechanical recycling of end-of-life PV panels and the final disposal of the residues after mechanical treatment. The Project is expected to reduce GHG emissions by approximately 5,050 tonnes of CO<sub>2</sub>eq per year, with absolute emissions of 40,140 tonnes of CO<sub>2</sub>eq annually, compared to baseline emissions of 45,190 tonnes of CO<sub>2</sub>eq in a standard year of operation. The carbon footprint will be continuously improved during the project.

For the annual accounting purposes of the EIB Carbon Footprint, the Project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of Project cost.

### **Social Assessment**

The Project is expected to generate direct and indirect employment opportunities during both the construction and operation phases of the new recycling plants. It will contribute to the local economies where the plants will be located, fostering regional development.

### **Public Consultation and Stakeholder Engagement**

For the plant in Spain, the simplified EIA and the Environmental License procedures were subject to a mandatory public consultation period, in line with European and Spanish legislation, prior to final approval by the competent environmental authority (INAGA). On 03/02/2025 a public notice was published for a one-month consultation period in the Official Bulletin of Aragón regarding the simplified EIA request and permit request. No objections were submitted.

For the plant in Germany, the EIA and the Environmental Permit procedures are expected to be subject to a mandatory public consultation period, in line with European and German legislation, prior to final approval by the competent environmental authority. This will be verified by the bank before first disbursement of this plant.

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**Other Environmental and Social Aspects**

The Promoter is in the process of obtaining certification for its management systems in ISO 9001 (Quality), expected to be obtained in 2026.

**Conclusions and Recommendations**

The Project will increase material recovery from end-of-life photovoltaic panels, thus reducing the import of raw materials in Europe, but also reduce environmental and climate change impacts, and support the transition to a circular economy. It will generate positive externalities, including reducing GHG emissions, and create employment.

Sustainability proofing conclusion: the Project will be carried out in compliance with applicable national and EU environmental and social legislation. Based on the information provided by the Promoter, the Project environmental, climate and social (ECS) risks and impacts are deemed to be low, and no mitigation measures are required. Therefore, no further sustainability proofing is required.

The Bank will include the following Conditions for Disbursement in the finance contract:

- Prior to the first disbursement for the plant in Spain, the promoter will send to the Bank electronic copy of the necessary permits once approved by the relevant CA.
- Prior to the first disbursement for the plant in Germany, the promoter will send to the Bank electronic copy of the EIA report (and decision) and necessary permits once approved by the relevant CA.

The project meets the requirements for EIB financing in relation to social considerations and provided that the necessary environmental permits are obtained.