



Luxembourg, 17/11/2022

Public

Environmental and Social Data Sheet¹

Overview

Project Name:	P-CAM COMMERCIAL DEMONSTRATION PRODUCTION PLANT	
Project Number:	2022-0367	
Country:	Germany	
Project Description:	The project consists of the construction and operation in Hagen, Germany, of an innovative first-of-its-kind commercial demonstration plant for the manufacturing of precursor cathode active material for nickel, cobalt and manganese for the production of advanced Lithium-ion cells.	
EIA required:	No	
Invest EU sustainability proofing required	Yes	
Project included in Carbon Footprint Exercise ² :	Yes	

Environmental and Social Assessment

Environmental Assessment

The proposed demonstration plant, to be located on the existing K&E industrial site, will be the first time deployment of a novel process to produce pCAM (precursor Cathode Active Material) that is used to produce batteries for electric vehicles. The process is breakthrough in terms of low energy requirements, which results in a significant reduction in the greenhouse gas (GHG) emissions compared to conventional manufacturing technology. The process also utilises less hazardous chemicals compared to the conventional process. The process is also capable of operating on recycled battery material, which leads to further GHG savings compared to using primary raw materials.

The demonstration plant is subject to the licensing requirements of the German Federal Emission Control Act. The project falls under Annex II of the EIA Directive and was screened out by the relevant competent authority as well as the Industrial Emissions Directive.

¹ 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

² 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 CO₂e/year absolute (gross) or 20,000 tonnes CO₂e/year relative (net) – both increases and savings.



Luxembourg, 17/11/2022

The promoter conducted a Preliminary Assessment of Species Protection due to the plant expansion. The assessment is in accordance with the Federal Nature Conservation Act (BNatSchG) and in conjunction with the species protection specifications of the Habitats and Birds Directive. The assessment concluded that the project is not likely to have a significant effect on the species concerned and, therefore, an Appropriate Assessment was not deemed necessary.

The installation falls under the SEVESO directive. According to the German incident prevention regulations, the site is classified by the Störfall-Verordnung (Hazardous incident ordinance) as a site of the upper classification based on the material portfolio and volume thresholds. This ordinance abides to the Seveso III directive. The final permit will encompass the operational and construction permits as well as the SEVESO requirements.

The project will contribute to the circular economy goals of the EU due to the use of recycled battery material known as “Black Mass” as a feedstock, thus reducing the need for primary nickel, manganese and cobalt. Cobalt is defined as a critical raw material in the EU and EU autonomy and resilience in industrial ecosystems for e-mobility and batteries.

The project will also align with the upcoming Batteries Regulation, which aims to regulate the entire life cycle of batteries and promote the implementation of a circular economy.

Climate Assessment

The novel process is much less energy intensive when compared to current processing techniques which results in a reduction by 70 to 85% of the GHG emissions. The absolute emissions are calculated as 11.6kt CO₂/year and a relative reduction of 79.1kt CO₂/year.

The pCAM produced will be used to produce batteries, which are a strategic element of Europe's clean and digital transition and a key enabling technology, essential to the decarbonisation of the transport and energy sectors.

In terms of the risks related to climate change, the project's permit application references the Sicherheitsbericht (safety study) which includes climate-based risks. The risks evaluated include flooding, heavy rain, snow and other natural disasters. The risks and event frequency were assessed and mitigating measures are in place. The project's climate risks are assessed as low or manageable. The project is therefore considered to be 'Paris aligned', both against low carbon and resilience goals.

EIB Paris Alignment for Counterparties (PATH) Framework

The counterparty Pure Battery is in scope and screened out of the PATH framework, because it is not considered high emitting nor high vulnerability sector.



Luxembourg, 17/11/2022

EIB Carbon Footprint Exercise

The absolute emissions of the project are estimated at 12,000 tonnes of CO₂ equivalent per year and the relative emissions of the project are estimated at -79,000 tonnes of CO₂ equivalent per year.

Social Assessment

The project does not have any significant negative social impacts. The promoter has engaged both local and international contractors who have the experience, capability and capacity to deliver the Project successfully.

The project is located on an existing operating site with established processes and procedures, including ISO certifications, to ensure that they perform their duties concerning health and safety, the environment and ensuring the Project delivers on its commitments to climate and social aspects.

The project will transfer innovative technology developed in Australia to an EU site in the growing battery sector. It will generate positive social impacts through creation of new skilled employment, knowledge sharing and technological transfer. Existing skilled employment will also be utilised and retained.

Public Consultation and Stakeholder Engagement

The relevant studies have been submitted and the approval process will be followed by a public consultation period. The Promoter is in close contact with the competent authorities and stakeholders.

Other Environmental and Social Aspects

The EU is heavily reliant on Chinese industrial metals and rare earths required for the energy transition (electric vehicles (EV), solar cells, semiconductors). This project brings production into Europe strengthening domestic sourcing of raw materials and diversifying supply from both primary (mining) and secondary (recycling) sources while adhering to EU social and environmental standards.

Conclusions and Recommendations

The project has a small environmental impact in terms of CO₂ emissions but relative to existing processes, it is much less carbon intensive.

A significant proportion of the products resulting from the project will be used in the deployment of electric vehicles, and thereby support the decarbonisation of transport sector.

Sustainability proofing conclusion: the project is carried out in compliance with applicable national and EU environmental and social legislation. Based on the environment, climate and social (ECS) information and based on the review of the likely significant ECS risks and impacts and the mitigation measures and management systems in place, the project is deemed to have low residual ECS risks and impacts. No further sustainability proofing is required.

Conditions

The Bank will require the Promoter to provide a copy of full permit, which includes construction and environmental permits, from the competent authorities. Overall, and with regard to the contractual conditions included above, the project is acceptable for EIB financing in environmental and social terms.