European Investment Bank

Luxembourg, 15th November 2023

Public

Environmental and Social Data Sheet[1]

Overview

Project Name:	*SUNFIRE SOLID OXIDE ELECTROLYSER*
Project Number:	*2023-0115*
Country:	*GERMANY*
Project Description:	*The project concerns (i) research and development related to solid-oxide (SOEC) electrolysers; as well as (ii) the required capital expenditures for early production capacity related to such SOEC electrolysers.*
EIA required:	no
Invest EU sustainability proofing required	yes
Project included in Carbon Footprint Exercise[2]:	no

Environmental and Social Assessment

Environmental Assessment

The investment in manufacturing capacity falls under Annex II of the EIA Directive 2011/92/EU amended by Directive 2014/52/EU, requiring a screening decision from a competent authority. In this project, this activity will take place on the premises of a contract manufacturer, replacing a similar activity. The Competent Authority has confirmed that the change in activity does not require a full EIA and is covered by an existing environmental permit. The RDI work do not cover activities that are covered by Annex I nor Annex II of said directive.

The environmental impacts of the project are limited. The manufacturing activities are limited to machinery and assembly and will not cover high risk or high impact activities. It will replace similar dwindling activities at an existing site and will thus not add to a cumulative impact. The RDI activities are limited to material tests and prototyping to be carried out in a laboratory setting with low impact.

Climate Assessment

The project will promote the manufacturing of electrolysers that will be used for the production of hydrogen by renewable or low-carbon electricity. This green hydrogen will then be used to decarbonise industrial processes. Thus, the project will be an enabler of a climate transition.

[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.

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No greenhouse gas emissions are considered for the RDI part of the work. Emissions for the early production line are based on the electricity consumption at full capacity and the emission factor for the high voltage grid in Germany, amounting to 4 kt of CO2 equivalent per year.

The project meets the criteria as defined in the 2020-2025 EIB Climate Bank Roadmap (Annex B: low carbon framework for industry) and physical climate risks are assessed as not material. As such the project is considered as aligned to the goals of the Paris Agreement, both in terms of low carbon and resilience goals.

Other Environmental and Social Aspects

As well the promoter as its contract manufacturer have put in place ISO 14001 environmental management system, ISO 50001 energy management systems and ISO 45001 occupational health and safety management systems. The capacity of the to manage impacts and risks and to implement mitigation measures is considered good.

Conclusions and Recommendations

The overall impacts of the project are low and limited to well confined. In addition, the promoter has well defined structures in place to mitigate and manage residual risk. Given the project enables a transition to a hydrogen economy, the project has overall positive benefits.

Given the small impact of the project and the mitigating actions in place, residual risks are considered low and no detailed sustainability proofing is required.

The project is acceptable for EIB financing in environmental, climate and social terms.