



Luxembourg, 03.05.2023

**Public**

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

### Overview

Project Name:	<i>NORTHVOLT ETT EXPANSION-LARGE SCALE BATTERY PLAN</i>
Project Number:	<i>2022-0461</i>
Country:	<i>Sweden</i>
Project Description:	Design, construction, commissioning, ramp-up and operation of an innovative large-scale vertically integrated lithium-ion battery cells manufacturing facility of a capacity of up to 42 GWh, together with an upstream cathode active materials plant and a battery cell recycling facility. The production is intended for the supply of European automotive manufacturers for premium electric vehicle models currently under development. The project is located at the Northvolt Ett site in Skellefteå in northern Sweden.
EIA required:	yes
Invest EU sustainability proofing required	yes
Project included in Carbon Footprint Exercise <sup>2</sup> :	yes

(details for projects included are provided in section: “EIB Carbon Footprint Exercise”)

### Environmental and Social Assessment

#### Environmental Assessment

The project consists of an innovative large-scale and vertically integrated lithium-ion battery cells manufacturing facility. The battery cells to be produced are of advanced next generation technologies, of nickel-rich cells with the aim to enable high energy density and fast charging. The plant will apply advanced manufacturing technology developed in-house and include high-tech process steps in clean/dry room environments. The production is intended for the supply of European automotive manufacturers for electric vehicle models currently under development. The project is located at the Northvolt Ett plant in Skellefteå in northern Sweden.

The project consists of the expansion of the existing plant (phase 1) which is currently partially in ramp-up and partially still under commissioning. The manufacturing capacity of phase 1, roughly 16 - 18 GWh/y of batteries per year will be increased to roughly up to 60 GWh of battery cells per year by the project. Furthermore, the expansion of the plant (phase 2) also covers the implementation of an innovative first-of-a-kind battery materials recycling facility.

The project is subject to the licensing requirements of the Swedish Environmental Code and falls under category A of the Code. Hence, the project requires an environmental impact assessment (EIA) as defined by the EIA directive. Both the EIA process and the plant's

<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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environmental permit are handled by the Land and Environmental Court (the competent authorities). The Project has finalised the EIA process and received its environmental permit from the Land and Environment Court in Umeå (M 3739-19) in January 2021.

The project falls as well under the industrial emissions directive (IED) and hence is subject to the relevant best available techniques (BAT) conclusions. The project is subject to the requirements of the Seveso Directive (high-tier).

The promoter is committed to manufacture batteries with a very low carbon footprint largely enabled through carbon free electricity. Furthermore, battery cells are key to shift towards electric mobility which will lead to additional indirect GHG emission savings. The project also contains the implementation of a battery recycling facility which underlines the promoter's commitment to circular economy. The promoter has ambitious medium-term target in terms of recycling.

The environmental impact study identified as main potential environmental impacts during operation and construction, emissions to air, water and noise as well as the handling/treatment of environmentally hazardous substances during operation.

The promoter has submitted impact studies and proposed mitigation measures (when necessary) in relation to these impacts. These risks and mitigation measures have been addressed in the environmental permitting procedure and been assessed and accepted by the competent authority. The final environmental permit still requires the submission of detailed studies on various aspects during the first 3 years after start of operations.

The promoter's operations will meet the relevant BAT conclusions and associated emission levels.

The environmental permit for the project, i.e.: the expansion of the Northvolt Ett plant (phase 2), has not revealed any significant additional impacts compared to the environmental permit of phase 1.

No Natura 2000 areas are in the direct vicinity of the plant and according to the EIA study there are no higher natural values and no protected or red-listed species in the area.

### **Climate Assessment**

The project is fully aligned with the Paris Agreement on climate change according to the Bank's definition as (i) its activities (battery cell manufacturing, battery active material manufacturing and battery material recycling) are not part of the non-supported activities and (ii) the project is considered to be resilient against climate change.

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

The promoter/borrower is not in scope of the PATH framework as it is an SPV, who's parent has multiple shareholders.

### **EIB Carbon Footprint Exercise**

The manufacturing process of Li-ion battery cells and battery active material involves rather energy-intensive processes and therefore has an impact in terms of GHG emissions. The project will consume electricity as sole source of energy. According to the Bank's methodology, the greenhouse gas emissions from the project operations will be assessed by considering the



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greenhouse gas emissions associated with the electricity sourced from the grid. Supply chain related emissions (scope 3) are not considered in this exercise.

The estimated absolute emissions from the project in a standard year of operation are about 53.4 kt CO<sub>2eq</sub> per year (with the emissions electricity sourced from the Swedish grid, according to the Bank's methodology).

In the baseline scenario it is assumed that the same quantity of battery active material and battery cells would be produced in Europe (EU 27 average). Today, most battery active material and battery cells manufacturing takes place in Asia. However, it is assumed that in the medium to long term these manufacturing steps will be executed to a certain extent inside the EU to cover EU demand, i.e.: electric vehicles manufactured in the EU. Hence, for the baseline scenario the EU average grid factor with an identical energy consumption has been used in order to estimate the project's relative emissions. This is considered to be a conservative assumption. Based on the Bank's carbon footprint exercise methodology it is estimated that the overall project will thus result in emission savings of 492.8 kt of GHG per year.

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 will have a substantial impact on employment with the creation of roughly 2'700 new direct permanent jobs and will support the conversion of the automotive industry towards e-mobility.

The project covers the Northvolt Ett plant expansion as mentioned above. The land had already been acquired for phase 1 of the plant's implementation. As part of the initial consultation for phase 1 the promoter had already engaged with the relevant stakeholders, including the Mausjaur Sami village who have grazing rights over the project area. The main impact identified with respect to the Sami village relates to an area located 100 m north of the site. This area may be used for reindeer winter grazing mainly during the period February - March. Potential avoidance effects could arise during the construction phase from noise, traffic, and light pollution. The mitigation measures in place include timely information dissemination regarding foreseen blasting activities and design features to minimise noise impacts.

For the plant's expansion (phase 2) the Mausjaur Sami village have been consulted during the EIA process and will further be consulted annually, in line with the agreement reached between NV and the Mausjaur Sami village. This is part of a larger agreement between the promoter and the Sami village, which includes compensation and benefit sharing measures.

The promoter, who is committed to promoting gender equality in a traditionally male-dominated sector, seeks to increase the number of women employees at all levels of the company. In 2021, women represented 29% of the overall workforce, 13% of Board members and 21% of managers. The promoter has a target to reach 40% of women employees by 2030. Specific recruitment, retention and career advancement measures include guidelines for gender decoding of job ads, gender balanced interview panels and monitoring of performance management processes to ensure that women are encouraged to pursue promotion opportunities. The promoter is further collaborating with the organisation Female Technical Engineer, whose aim is to promote women in technical fields.



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## Public Consultation and Stakeholder Engagement

Public and stakeholder consultation of the project took place in fall 2019 (23.09.2019 – 18.10.2019). The consultation has been carried out through meetings, advertisements and mailings to the relevant authorities, associations, organisations. Also, information sheets distributed to the general public. During the consultation period consultation documents were available on the internet. Furthermore, a Seveso public consultation has been carried out by the promoter during the same period. Nine written consultation responses have been received and have primarily been addressed by the promoter in the EIA study and/or environmental permit application.

The promoter has an existing Stakeholder engagement plan for its Northvolt Ett plant / operation.

## Other Environmental and Social Aspects

The promoter consumes renewable electricity and does as well plan to do so in the future. The promoter intends to operate according to the following certified management systems ISO 45001 (operational health and safety), ISO 14001 (environmental management system) and ISO 50001 (energy management system) once the plant is operational. The promoter intends to receive the ISO 14001 certification for phase 1 of the battery manufacturing plant (not this project) during 2023 and preparations have started in that regard.

More in general the promoter has a strong focus on E&S standards and considers impacts on of its operations on the environment and climate throughout the full supply chain as far as possible. The promoter also strives to continuously reduce these impacts. The promoter claims to have a particular focus on the sustainable sourcing of key battery raw materials. As an example, it considers among others the supply chain related GHG emissions (scope 3) in its supplier selection.

## Conclusions and Recommendations

The project was subject to an environmental impact assessment process that has been finalised. The project also received the environmental permit from the Land and environmental court. The Promoter has put in place a project organisation with appropriate experience together with consistent governance systems to deliver the project in accordance with national and European legislation. The project will use advanced technology to produce electrical batteries that will support the deployment of EVs – i.e., zero emission vehicles.

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

In the light of the above, the project is acceptable for the Bank's financing in environmental, climate and social terms.



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Undertakings:

- The promoter will report on the ongoing consultation with stakeholders, in particular the Sami village.