

Environmental and Social Data Sheet

Overview

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| Project Name: | NORTHVOLT ETT -LARGE SCALE BATTERY PLANT |
| Project Number: | 2017-0359 |
| Country: | SWEDEN |
| Project Description: | The project concerns the promoter's investments in Skellefteå, Sweden, for the design, construction, commissioning and operation of a lithium-ion battery cell manufacturing facility with a capacity of 16 GWh. The project is structured into two components, each consisting of a block with a manufacturing capacity of 8GWh. The advanced Li-ion cells to be manufactured at the plant are for use in batteries for electric vehicles, stationary storage and industrial and consumer applications. |
| EIA required: | yes |
| Project included in Carbon Footprint Exercise ¹ : | yes |

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

Environmental and Social Assessment

Environmental Assessment

The investment concerns the construction and operation of a manufacturing plant for the production of advanced Li-ion cells and batteries. As such, the project includes the deployment of industrial processes concerning chemical conversion and metal processing. The investment therefore falls under the scope of EU Directive 2014/52/EU (Annex 2) amending the EIA Directive 2011/92/EU and requires an Environmental Impact Assessment and environmental operating authorisations from the competent authorities.

The promoter has completed a full EIA process for the first component (8 GWh capacity) of the manufacturing plant. The EIA study was submitted on December 19th 2017 to the competent authority, the Land and Environment Court in Umeå (Mark- och miljödomstolen in Umeå), as part of the Environmental Permit application process. On June 7th 2018 the Court approved the EIA and granted the promoter the authorisation for the construction and operation of the first component of the manufacturing plant as well as associated emissions.

¹ Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO₂e/year absolute (gross) or 20,000 tons CO₂e/year relative (net) – both increases and savings.

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As concerns the second component of the manufacturing plant (additional 8 GWh capacity), the promoter has submitted the EIA study and permit application to the competent authority (the Land and Environment Court in Umeå) in October 2018. It is foreseen that the authorisation for the construction and operation of the second component of the manufacturing plant as well as associated emissions will be granted during the first quarter of 2019.

The project operations are subject to the requirements of the Seveso Directive, therefore the project consultations and approval applications were carried out under the relevant provisions of the Swedish Environmental Code concerning the Seveso Directive (Miljöbalken 1998:808, 6 kap. 4a §).

EIB Carbon Footprint Exercise

The vertically integrated manufacturing of Li-ion battery cells as deployed by the promoter involves rather energy-intensive processes and therefore has a relevant impact in terms of CO₂ emissions. However, the promoter has managed to secure the supply of renewable (hydro-electric or wind) power for the project operations. Additionally, the promoter's production process is highly energy efficient and carried out in accordance with best available technologies. The estimated absolute emissions from the project in a standard year of operation are about 107,000 T CO₂eq/y. These emissions include the processes for materials preparation and cell assembly taking place at the plant as well as the carbon emissions associated with the manufacturing of imported components (electrolyte ingredients and separator).

Estimated emissions saving are about 510,000 T CO₂eq/y when comparing the promoter's highly efficient production process with the current viable alternative of sourcing the battery cells from a production plant located in China and adopting the same production process.

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.

Public Consultation and Stakeholder Engagement

The promoter has undertaken a public consultation process in the context of the project for the battery cell manufacturing facility.

- Northvolt conducted consultations between August 25th and October 6th 2017. An advertisement with a call for consultation was published in the newspapers Norran and Västerbotten Folkblad on August 25th 2017. About 800 letters were sent in advance to consult the relevant local and national authorities and organizations, to the nearby businesses, as well as industrial and residential entities within a radius of 500 m from the boundary of the manufacturing facility area.
- An information meeting for the public was organized on September 14th 2017 at the Scandic Hotell in Skellefteå. At this information meeting, a complete presentation of the project was given, after which there were questions to Northvolt that addressed the technical aspects of the facility, risk and safety concerns, noise, issues concerning natural environment, recreational and cultural environment, emissions to water and air.
- Northvolt offered interested parties the possibility to submit written comments and/or questions in a mailbox on site, via mail or e-mail. The interest in the project was high and the information meeting was attended by approximately 850 people. Visitors

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were very interested and curious about the project and gave positive endorsements. Questions mainly concerned opportunities for continued recreation and outdoor activities in the area, noise from the facility and transport in the area, risks, raw materials and the industrial process. At the information meeting, three consultation observations were received concerning environmental issues. 22 additional opinions were submitted at the information meeting: these were positive and welcoming and a number of them included business proposals.

- A separate consultation meeting with invited authorities was held in Skellefteå municipality on September 15th 2017. At this meeting, the subjects discussed concerned alternatives in EIA sampling of recipients, chemicals and emissions, cumulative effects, conditions, commitments and proposals. 18 written consultation answers were received. Six participants responded that they chose not to leave consultation views.
- A follow-up meeting with the county administrative board and Skellefteå municipality was held on November 1st 2017 with a presentation of the project technical description and discussions about its environmental impact and the permit application process.
- The business operations are subject to the requirements of the Seveso Directive, therefore consultations were also carried out under the relevant provisions of the Swedish Environmental Code concerning the Seveso Directive (Miljöbalken 1998:808, 6 kap. 4a §).

The promoter is undertaking an additional public consultation process in the context of the Environmental Permit application process (including the EIA study) for the second project component (additional 8 GWh capacity).

Conclusions and Recommendations

Obtaining the necessary environmental approvals from the competent authorities and the provision of the full EIA study for publication will be a condition for the disbursement of the loan amount portion concerning the implementation of the second component of the manufacturing plant (additional 8 GWh capacity).

The promoter is expected to implement all the mitigation initiatives that will be necessary as a result of the EIA process. Subject to this condition, the project is not expected to have any significant negative impact neither in the natural environment nor on the human environment and in public health. Pending the conclusion of the environmental authorisation process for the second component of the manufacturing plant, the project is considered as acceptable for EIB financing.

PJ/SQM/ECSO