

## Environmental and Social Data Sheet

### Overview

Project Name:	Äänekoski Bio-Product Mill
Project Number:	2014-0557
Country:	Finland
Project Description:	The project consists of the construction and operation of a new pulp mill in Äänekoski, Finland with a 1.3m tonnes annual (mtpa) production capacity that will substitute an old pulp mill with a corresponding capacity of 0.5mtpa. The mill includes a combined heat and power plant (CHP) that is fed by renewable by-products from the main production process (black liquor). In addition, the project includes an innovative bark gasification plant that will allow the mill to be fossil fuel free. The project includes also the upgrade of existing waste water treatment and overhead line as well as the remediation of contaminated land where the new pulp mill will be implemented. The mill will also export on average 1,000 GWh/y of electricity and 600 GWh/y of steam to industrial users and to the local district heating. The mill will also produce 46,000tpa of tall oil, 3,200tpa of turpentine and 500 GWh/y of solid biofuel (tree bark). The operation will target the CHP plant, the gasification plant, the tall oil plant, the upgrade of effluent system and of the overhead line.

EIA required: yes

Project included in Carbon Footprint Exercise<sup>1</sup>: yes

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

### Summary of Environmental and Social Assessment, including key issues and overall conclusion and recommendation

The project falls under the scope of Annex I of the EIA Directive (2011/92/EU) and is subject to a full EIA including public consultation. Furthermore, a permit under the Industrial Emission Directive 2010/75/EU is required. The promoter submitted a full EIA study to the Competent Authority and a public consultation was carried out in 2014. The pulp mill is also subject to the Seveso Directive (2012/18/EU). The main permits for the implementation of the project have been granted and few are in the final stage of the procedure. The new pulp mill is based on proven process technology compliant with best available techniques (BAT). The promoter's forest management practices are certified. The project will be implemented in an existing industrial site far from any site of nature conservation however surveys on two protected species known to be in the vicinity of the project site will be carried to ensure that there are no significant impacts and that the appropriate mitigation measures and monitoring programmes, if required, are in place.

The impact on the environment is expected in terms of emissions to air, effluents to water, increased traffic as well as impacts during construction. The project will result in more efficient and carbon neutral production of pulp, increased use of renewable sources for the generation of energy with around 600 kton/y of CO<sub>2</sub> emission reduction. In addition, the project will have environmental benefits due to the remediation of a contaminated site and the upgrade of the effluent treatment system.

<sup>1</sup> 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 CO<sub>2</sub> e/year absolute (gross) or 20,000 tons CO<sub>2</sub> e/year relative (net) – both increases and savings.

The following conditions need to be satisfied by the promoter:

- The promoter undertakes not to allocate the Bank's funds to project components until these have been approved by the relevant competent authorities and all required permits are in place. A copy of the consents from the competent authority must be provided to the Bank.
- The promoter undertakes to update the project environmental management plan (EMP) to include the requirements under the relevant permits and to implement the project in accordance with the EMP and the timeline contained therein. A copy of the EMP, at the satisfaction of the Bank, must be provided to this institution.
- The Bank has imposed continuous project undertakings so as to ensure sustainability of the pulp wood sourced to the mill. The promoter's current pulp wood sourcing policy and standards comply with the Bank's conditions.

Taking into account the conditions on the project, the capacity of the promoter and the systems in place to manage environmental and social impacts and issues, the project is acceptable for Bank's financing in environmental and social terms.

## **Environmental and Social Assessment**

### **Environmental Assessment**

The project is subject to the Finnish EIA Act (Act on Environmental Impact Assessment Procedure 468/1994 and amendments). The EIA procedure has been carried out using a pilot streamlined approach in cooperation with the Ministry of Environment. In January 2015, the promoter received the main relevant permits from the Competent Authority for the new Bio-Product Mill. The EIA study for the implementation of the overhead line has been submitted to the Competent Authority and the final permit is still pending.

The pulp mill is considered as upper-tier according to the Seveso Directive and during the engineering phase provisions have been made to reduce the risk of accidents. A large-scale chemicals' establishment permit application will be submitted to the Finnish Safety and Chemicals Agency (TUKES) in December. A more detailed plan will be prepared and TUKES recommendations/instructions will be implemented.

The emission to air and the effluents to water from the pulp production process are the main impact of the project. The pulp mill applies the best available techniques for the production of pulp, paper and board (according to Commission Implementing Decision 2014/687/EU of 26 September 2014) for emission control and would not use of fossil fuels in the process. The project also includes the upgrade of the effluent treatment plant that will be able to accept effluents from all the industries and from the local wastewater.

The existing industrial site includes a very old pulp mill built in 1961 (out of operation since 1985) that will be dismantled and the land will be decontaminated in order leave space for the project.

The pulp wood is sourced from Metsä Forest from forests that are certified by internationally accredited forest certification systems – such as FSC (Forest Stewardship Council) and PEFC (Programme for the Endorsement of Forest Certification) – or the sourcing areas which are not yet certified conform with the same standards. They comply with chain of custody requirements for non-certified wood (PEFC controlled sources and FSC controlled wood). Metsä Forest has valid PEFC and FSC Chain of Custody certificates (certificate numbers are: BV-COC/CW-897631 and PEFC 200639) which have been verified by an independent, third party certification body. Metsä Forest knows always the origin of the wood.

Metsä Forest is committed to procure wood only from legal and sustainable sources. All non-certified wood raw material fulfil PEFC Controlled Sources and FSC Controlled wood requirements, which are verified by a third-party certification body.

### **EIB Carbon Footprint Exercise**

The project will have no direct emissions due to use of alternative renewable based fuels during the ramping up processes and operation of the pulp mill.

In accordance with the Bank's Carbon Footprint methodology, it is calculated that the total relative effect of the plants will be a net reduction in CO<sub>2</sub> equivalent emissions of around 600 kt CO<sub>2</sub> e/year. This calculation assumes that 50% of the produced electricity substitute power generation in existing fossil fuel based plants whilst 50% substitute power generation in new gas-fired combined cycle power plants. It is further assumed that alternative to the biomass boilers and gas, CHP plants are heat generators from industrial gas fired boilers at consumers' sites. For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be attributed on a pro rata basis according to the EIB lending amount signed in that year, as a proportion of project cost.

### **Social Assessment**

The Promoter is accredited to meet the standards of ISO 9001, ISO 14001, ISO 22000, ISO 50001 and OSHAS 18001. The project will secure existing jobs of the company.

Detailed emergency preparedness plans as required under the Seveso Directive are being developed.

The new pulp mill will more than double the capacity of the existing production site, which will, in turn, result in growth of vehicles bringing wood and chemicals to the site. The planned future upgrade of the existing road network and other infrastructures as well as the fact that the transportation of the pulp will be done mainly by train mitigate the risk of congestion and increase safety for the local community. The promoter has been working with the municipality and the national road authorities to ensure that road safety measures will be strengthened (i.e. better lighting and signaling, overhead bridges for crossings, etc.).

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

The public consultation was carried out during the EIA process in 2014 and information on the Environmental Impact Assessment was accessible at the link: [www.biotuotetehdas.fi](http://www.biotuotetehdas.fi).

Several stakeholders were involved as members of a monitoring team: including local environmental authorities of the municipalities of the towns close to the plant, environmental groups and associations, the Regional Council of Central Finland, other industrial players in the area, and representatives from the Finnish Forest Centre. An open discussion and a residents' survey (with publication in local journals) were held in the town of Äänekoski. In addition, the promoter has provided information in the press and in the stock exchange releases. The full EIA study has been published at the following link: <http://www.ymparisto.fi/download/noname/%7BB9E43605-0994-44AD-A85B-A595A1EB67E2%7D/99532>