

Environmental and Social Data Sheet

Overview

Project Name: France Biomasse – GdF Suez
 Project Number: 2012-0193
 Country: France
 Project Description: The operation comprises four biomass based energy projects in France (Forbach, Nantes, Lacq and Epinal).

EIA required: YES (three of the four projects)

Project included in Carbon Footprint Exercise¹: YES

(Details are provided in section: “Carbon Footprint”)

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

The projects are located in France in the municipalities of Forbach, Epinal, Lacq, and Nantes. The projects include also renovation and in some cases extension of the district heat network and replacement or retrofit of existing generation units. The biomass plants will primarily run on wood sourced regionally. The generated heat will be supplied to the district heat systems or to industrial users and in case of cogeneration the electricity will be fed into the national grid.

The operation contributes to an increased utilisation of renewable energy sources. Heat and power generation from sustainably supplied forest based biomass consumes less fossil energy resources and emits less greenhouse gases than conventional heat and power generation from fossil fuels. Further, the use of regional forest residues helps the sustainable management of EU forests.

All projects fall under Annex II of the Environmental Impact Assessment (EIA) Directive 2011/92/EU. Therefore they can be subject to an EIA on a case by case basis decision or defined criteria set by the competent authority. Based on the criteria defined in France (“Code de l’Environnement”) three projects under this investment programme require an EIA in order to obtain an environmental authorisation.

The environmental studies received are comprehensive studies, identifying and quantifying potential impacts of the heat or heat and power generation plants during construction and operation, including on Natura 2000 protected species and habitats. Each EIS also proposes preventative and mitigation measures for the operating phase in order to avoid and/or minimise potential impacts.

The Nantes project will require an additional EIA for the future project phases. The completion of this EIA and its approval by the competent authority will be conditional to the allocation of the Bank’s funds to the related project components that require an EIA according to EU and national law.

All projects will comply with emission limit values which are equal to or below (dust, NO_x) those defined by French law and, where applicable, with the Industrial Emissions Directive (2010/75/EC).

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.

The promoter uses a biomass mix which is primarily sourced from regional forests, following sustainable forest management practices, as defined by internationally accredited certification schemes. Appropriate undertakings as to the sustainability of the biomass have been included. The supply of biomass to all plants is organised by promoter subsidiaries with substantial experience in forest biomass sourcing. Detailed biomass availability and sustainability studies were carried out by the promoter revealing sufficient feedstock quantities for the plants. The complex transport logistics are optimised for all projects and take into account environmental concerns such as traffic noise and distances.

The three projects with cogeneration produce electricity at “high efficiency” as defined by the EU Energy Efficiency Directive 2012/27/EU. On a full year basis all projects achieve net primary energy savings of 7 to 24% when compared to a separate generation of heat and electricity.

Based on the environmental authorisation processes undertaken or being concluded, the environmental management capacity of the promoter, the techniques chosen, and the location of the sites, the operation is considered acceptable for Bank financing from a social and environmental point of view.

Environmental and Social Assessment

Environmental Assessment

All projects are located in existing industrial sites. One project is located in the direct vicinity of a Natura 2000 site, for which an appropriate assessment in compliance with the EU Habitats Directive has been conducted showing that it will have no significant negative impact on the protected nature conservation site.

The Bank has received and reviewed the Environmental Impact Studies (EIS) for the projects requiring an EIS according to the French “Code de l’Environnement” (Forbach, Lacq, first phase of Nantes project). These EISs conclude that the plants involved have no significant negative environmental and social impacts. The most relevant residual impacts originate from initial construction works and, during operation, from pollutant emissions of the combustion process, increased traffic due to biomass transports, and the visual appearance of the plants.

All projects will comply with emission limit values which are equal to or below (dust, NOx) those defined by French law. The Nantes project falls under the Industrial Emissions Directive (2010/75/EC) as a result of its accumulated capacity (including back-up capacity) and will comply with it. All heat and combined heat and electricity generation plants apply best-available-technique boiler systems and flue gas cleaning. Additional constructive measures are taken to effectively limit dust emissions during biomass handling and storage onsite.

All projects combust non-contaminated forest based biomass and have a limited share of fossil fuel mainly related to backup and ancillary capacity (overall fossil share totalling 11%). The promoter has provided detailed studies for all projects about the origin of all biomass, its regional availability, expected transport distances, and its compatibility with the wood processing industry.

Two projects comprise the installation of a new district heat system which effectively extends an existing public system into a new district. The permit to implement and operate this system has been granted by the local authority under conditions. No significant negative environmental and social impacts are expected from it.

EIB Carbon Footprint Exercise

The direct emissions of the four projects under this investment programme are estimated at around 21 kt CO₂e/yr. This emission is caused by the auxiliary gas heat plants in the Nantes

project and by the combustion of fossil fuel for ramping up processes in the biomass CHP plants.

In accordance with the Bank's Carbon Footprint methodology it is calculated that the total relative effect of the four projects is a net reduction in CO₂ equivalent emissions by 220 kt CO₂e/yr. This calculation assumes that 50% of generated electricity substitute power generation in existing fossil fuel based power plants and 50% substitute power generation in new gas-fired combined cycle power plants. It is further assumed that cogenerated district heat substitutes heat generation in individual gas and fuel oil fired boilers at consumers' sites. Finally, the steam delivered to industrial users is assumed to replace steam delivered by industrial gas boilers.

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.

Other Environmental and Social Aspects

Occupational and community health and safety issues are deemed appropriately addressed in the authorisation process. The promoter has a health and safety policy in place.

All projects make a substantial contribution to securing jobs in the regional forestry sectors.

Consultation of the public and relevant authorities is an integral part of the authorisation process. Amongst others, full project documentation, including the NTS, is published locally for a period of 4 weeks. Responses from public and consulted authorities are accounted for in the authorisation process.

Comprehensive monitoring and reporting requirements are included in the environmental authorisations.

The promoter has substantial experience in the implementation and operation of energy infrastructure and has therefore a high environmental and social management capacity.