

Environmental and Social Data Sheet

Overview

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| Project Name: | BIOMASS PLANTS PORTUGAL |
| Project Number: | 20150867 |
| Country: | Portugal |
| Project Description: | <i>The project comprises the design, construction, operation and maintenance of two 15 MWe biomass power plants in Portugal. The plants will run on sustainable forestry biomass. The electricity produced will be fed into the grid.</i> |
| EIA required: | no |
| <i>Not required by national legislation.</i> | |
| Project included in Carbon Footprint Exercise ¹ : | yes |
| (details for projects included are provided in section: "EIB Carbon Footprint Exercise") | |

Environmental and Social Assessment

By virtue of their technical characteristics both biomass power plants fall under Annex II of the EIA Directive 2011/92/EU amended by the Directive 2014/52/EU; thus the project may be subject to a full EIA following a screening based on Annex III of the EIA Directive by the competent authorities. Both projects were screened out by the Portuguese authorities.

The two projects are located in Viseu and Fundao and will both be established in existing industrial zones. For both plants an Environmental Impact Statement (EIS) was submitted to the local authorities. These EIS are of acceptable quality and confirm that there are no significant negative impacts related to these projects. Potential impacts during implementation are temporary and will be minimised or avoided by preventive measures. During operation, the most relevant impacts originate from pollutant emissions of the combustion processes, from increased truck traffic due to the regular delivery of biomass, and from the visual appearance of the power plants. The projects' environmental permits have been issued by the competent authority (DGEG and APA) on 07/01/2016 and contain appropriate sets of mitigation measures.

The two schemes have a thermal input capacity below 50 MW_{th} each (according to the standard condition defined by law). As such they do not fall under Directive 2010/75/EC on Industrial emissions. There is an EC proposal for medium combustion plants that would be applicable from 2025 (2013/0442 (COD)). The project emission levels are already compliant with the proposed new directive.

The projects' biomass supply is considered sustainable. Both projects will be entirely fuelled by woody biomass residues, thinning residues, and traditional combustion wood from regional forests with average transport distances between 40 and 60 km. This extraction of residual biomass is essential to the regional forests which currently suffer from increased risks of diseases, plagues, and forest fires because of residual wood accumulating in the stands.

The projects will generate electricity at substantially lower greenhouse gas emissions than conventional power plants.

Environmental Assessment

- The projects comply with the applicable Environmental Portuguese and EU Legislation.
- The potential Environmental Impacts - both positive and negative – are satisfactorily defined in the Environmental Impact Statement (EIS); there are no significant negative impacts related to these schemes.
- The two projects will be established in existing industrial zones, which limits potential biodiversity risks.

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 environmental permits for the two projects contain comprehensive sets of mitigation measures for both the construction phase and the operational period. Measures will be taken to minimise dust and noise emissions during construction. During operation, limits for pollutant emissions and noise apply, as well as conditions for waste management. The promoter will monitor the project's environmental impact during construction and operation, based on an official plan.
- Impacts during construction will be temporary (noise, emissions, dust). During operation the main impacts will derive from the biomass boilers' pollutant emissions (mitigated through lower emission limits than Portuguese national legislation requirements as well as proposed levels in the draft EC Directive for medium combustion plants 2013/0442 COD), from 15-20 truck transports per day per plant for biomass delivery (marginal change of the existing industrial sites), and from the plants' visual appearance (marginal change at the existing industrial sites).
- All biomass power plants are equipped with dry cooling towers because of a lack of cooling water from local aquifers or rivers.
- The two projects will have a positive impact regarding climate change issues, as they will generate electricity at substantially lower greenhouse gas emissions than conventional power plants. Biomass Power Plants are considered neutral from the point of view of CO₂ emissions. Forest fires are reduced through enhanced forest management as a consequence of the creation of a demand for forestry residues.

EIB Carbon Footprint Exercise

The direct CO₂ equivalent emissions of the project are negligible because the biomass is from local sustainable sources.

In accordance with the Bank's current Carbon Footprint methodology it is calculated that based on the avoidance of electricity generation from a combination of existing and new power plants in Portugal (50% operating margin and 50% build margin), the total relative effect of the project is a net reduction in CO₂ equivalent emissions by 117.7 kt CO₂e/yr.

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, where applicable

- The project is expected to create 50 new permanent posts (25 FTE per plant) for the operation and maintenance of the power plants including biomass treatment, and indirectly 300-350 new permanent jobs per plant in the biomass supply chain.
- The Labour Standards to be adopted will pursue the principles of prevention and risk assessment and will primarily ensure the collective protection measures and, if there is no alternative, the individual protection measures in each workstation. The Labour Standards will comply with the European Legislation (Directive 89/391/EEC) and the Portuguese Legislation (Decreto-Lei n.º. 441/91, de 14 de Novembro and subsequent legislation).
- Occupational and Community Health and Safety standards will comply with applicable national and EU legislation

Public Consultation and Stakeholder Engagement

- The promoter has ensured at an early stage that both projects are supported by the local authorities. The two sites are part of existing industrial zones and selected in coordination with the municipalities.
- The project description and a copy of the EIS has been published for one month at municipal level. No appeals have been made.

Other Environmental and Social Aspects

There is an EC proposal for medium combustion plants that would be applicable from 2025 (2013/0442 (COD)). If the new directive comes into effect the project emission levels will be compliant with it.

Conclusions and Recommendations

- The environmental authorisation procedures are considered appropriate and have included publication of the project description and a copy of the EIS for a period of one month at municipal level. No appeals have been made. The promoter is very well experienced in the biomass sector and the equipment selected is in accordance with the Portuguese legislation. The project is carried out in close cooperation with the regional authorities. The schemes generate valuable local employment opportunities and contribute to sustainable management of regional forests. The project generates base-load electricity from renewable energy sources and helps to reduce greenhouse gas emissions.
- The project is considered acceptable for EIB financing in environmental and social terms.

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