

Environmental and Social Data Sheet

Overview

Project Name:	<i>LIETUVOS ENERGIJA VILNIUS CHP PROJECT</i>
Project Number:	<i>2015-0433</i>
Country:	<i>Lithuania</i>
Project Description:	<i>Construction of biomass-fired and waste-to-energy-fired CHP plants with total capacity of 88 MW_e and 227 MW_{th} supplying electricity to the national grid and heat to the district heating system in Vilnius.</i>
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

Due to the deployment of modern CHP technologies the project will result in more efficient production than separate generation of electricity and heat. The investment will also help to fulfil the requirements of the Landfill Directive 1999/31/EC, namely by contributing to the diversion of biodegradable waste currently put into landfills, and to meet the national renewable energy target by reducing the methane emissions from landfills and by generating heat and electricity from a partly renewable energy source.

The project has undergone a mandatory environmental impact assessment according to the EU requirements for this type of plant. The Environmental Impact Study (EIS) has been prepared, submitted to the national competent authorities early 2015 and presented for public consultations.

The EIS found the project's impact on environment acceptable. The plant will be located on land where economic activities including energy-related projects are foreseen in the municipal spatial plan. Other installations are located in the vicinity, such as the MBT facility. The plant will replace the existing obsolete, gas and heavy fuel oil-fired installation of low efficiency.

Based on the outcomes of the environmental assessment process undertaken, the capacity of the project promoter to manage and implement the mitigation measures and the location of the site, the project is acceptable for Bank financing, subject to the conditions and undertakings identified.

The project's main environmental impacts are noise, dust and increased traffic during the construction of the plant, and waste (fuel ash), noise and airborne pollutants during its operation. The project complies with the atmospheric emission limits for NO_x, SO_x, particulates and other pollutants defined by the Directive 2010/75/EU on Industrial Emissions. The EIS has considered the possible impact of the investment on sites of nature conservation including Natura 2000 sites, the nearest one being located 1 km from the plant (LTVIN0009, Neris river). The environmental study and the environmental permit state that the operation will not have any significant negative impact on Natura 2000 sites.

The main measures, among others, identified in the Environmental Impact Statement and the environmental permit to limit the negative impact of the project are the following: - continuous

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.

monitoring and evaluation of the impact on environment and providing access to the relevant information, - waste storage by specialised waste management companies, - combustion of any hazardous and also non-hazardous recyclable waste is forbidden, - flue gas cleaning through treatment with lime, activated carbon, various filters, de-NOxing and other operations, - implementation of various noise mitigation and protection measures, - operation of the plant with minimised emission of odours.

The project promoter is a major energy company in Lithuania, ISO 14001 certified, and has a high capacity to manage environmental and social impacts and risks and the measures listed above.

EIB Carbon Footprint Exercise

Absolute CO₂ emissions from the plant in a standard year of operation are estimated at around 72 kT of CO₂e/year.

The baseline emissions for the plant are calculated assuming that electricity is generated separately from heat. Electricity-related baseline emissions result from the fact that the plant will displace existing and new (CCGT) power generators in Lithuania. Heat-related baseline emissions of CO₂ are emissions from a gas-fired boiler, the most likely alternative heat generator. Taking these assumptions into account, baseline emissions are 431.8 kT CO₂e/yr resulting in estimated emission savings of 360.5 kT of 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.

Public Consultation and Stakeholder Engagement

The project has undergone a public consultation process according to the Lithuanian legislation. All comments have been satisfactorily addressed and the competent authority issued an environmental permit on 2 September 2015.

Conclusions and Recommendations

The project will demand approximately 500,000 tonnes of wood chips per annum. The Bank's undertakings will ensure that the wood chips are sourced from sustainably managed forests that comply with the forest management standards of internationally accredited forest certification systems, such as FSC and PEFC. The relevant contractual conditions will include the following clauses:

- Before the commissioning of the plant, the Promoter will present a biomass sustainability policy, satisfactory to the Bank, with terms imposed on forest biomass sourcing, ensuring that the best practices, as defined by the internationally accredited forest certification systems, such as FSC and PEFC, are followed in forest management of the sourcing areas.
- The project shall be based on forest biomass 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). The sourcing areas that are not yet certified, have to comply with the same standards so as to be certifiable.
- For the forest biomass sourcing areas that are not yet certified, an independent external audit report on compliance with the best practices is to be submitted annually for the Bank's review.
- The project shall exclude sourcing of biomass from areas with natural forest conversion and logging of primary moist and tropical forests.
- Sourcing of biomass shall comply with the EU FLEGT (Forest Law Enforcement Governance and Trade) Regulation, if applicable.

The project will also demand 140,000 tonnes of household generated waste in a form of RDF. The promoter together with public authorities will develop a plan to meet the recycling targets as stated in the New Waste Framework Directive and implement committed measures. The contractual clauses related to the waste-based fuel are going to be the following:

- Four years after the contract signature at the latest, the Promoter together with public authorities shall provide evidence (list of committed measures) to the satisfaction of the Bank that initiatives are taken to meet the recycling targets as stated in the New Waste Framework Directive.
- The Promoter together with the public authorities shall provide a list of activities relating to the treatment of the food waste stream.
- The Promoter will provide the IPPC (Integrated Pollution Prevention and Control) permit to the Bank when it is available but in any case before the plant starts its operation.
- To guarantee the environmental sustainability of the project, the Promoter together with public authorities shall be committed to strengthening source-separation collection of municipal waste towards achieving better recycling performance and will provide a report of undertaken activities together with the Project Completion Report 15 months after the start-up of the plant.
- The Promoter together with public authorities will conduct awareness campaigns on waste avoidance and utilisation of compost materials and recycling materials. The Bank will be kept informed about the progress made.
- The Promoter undertakes to phase in a solid waste tariff (together with public authorities) that ensures full cost recovery for the solid waste management system. In addition, the Promoter will endeavour to develop a tariff policy based on the 'polluter-pays principle', i.e. moving from a property-based tax towards a 'pay-as-you throw' charge. Annual reporting on both issues is expected.
- The Promoter together with public authorities shall put in place a waste information system to the full satisfaction of the Bank.

Besides this, before the first disbursement the Promoter will provide a declaration by the competent authority to indicate the compliance of the investment with the provisions of the EU Habitats and Birds Directives (Bank's Forms A/B).