

Environmental and Social Data Sheet

Overview

Project Name:	EBS - ENERGY OPTIMISATION SLUDGE TREATMENT
Project Number:	2014-0123
Country:	Austria
Project Description:	Renovation of the first biological stage, including the preliminary sedimentation system of Vienna's main waste water treatment plant as well as construction of a sludge digestion system to extract and process sewage gas and creation of three storm water retention basins.
EIA required:	YES (Non-technical summary received and available on the EIB website)
Project included in Carbon Footprint Exercise ¹ :	NO

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

The main objective of the project is to undertake necessary renovation works at Vienna's main waste water treatment plant and to create three storm water retention basins to allow continued compliance with the EU Urban Wastewater Treatment Directive 91/271/EC as amended by Directive 98/15/EC and with the Water Framework Directive 2000/60/EC.

The project will result in an improvement of the environment, health and livelihood in the Vienna area, by providing:

- i. Wastewater treatment services according to EU standards.
- ii. Reduced CO₂ emissions through biogas recovery from the sludge digesters to be used for electricity generation;
- iii. Decreased odour emission with the reduction of open areas at the waste water treatment plant.
- iv. Decreased discharge of contaminated storm water into the Liesing, the Danube Canal and the Danube during heavy rain events with the creation of three storm water retention basins.

The project falls under Annex II of the Environmental Impact Assessment (EIA) Directive 2011/92/EU. The EIA study and the public consultation have been carried out in compliance with the Directive and received the required permits by the Competent Authorities in May 2014.

The project falls under the Habitats and Birds Directives (92/43/CEE and 79/409/EC), as there are several Natura 2000 sites in the vicinity of the plant. For all sites, the absence of impact was confirmed by the competent authority.

The project does not fall under the Strategic Environmental Assessment (SEA) Directive 2001/42/CE as it concerns works in an existing plant and is not part of a programme.

During the works the promoter will ensure that all effluents will comply with the Urban Wastewater Treatment Directive.

The project is therefore acceptable for Bank financing.

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.

Environmental and Social Assessment

Environmental Assessment

The operation is fully consistent with EU objectives as well as the EU Urban Waste Water Treatment Directive 91/271/EC as amended by 98/15/EC. The project consists in undertaking necessary renovation of the first biological stage, including the preliminary sedimentation system of Vienna's main waste water treatment plant, in operation since 1980, as well as constructing a sludge digestion system to extract and process sewage gas and creating three storm water retention basins.

The EIA was conducted in 2013 and received the required approval by the Competent Authority (Government of the Land of Vienna) on 13 May 2014 after public consultation in December 2013/January 2014.

The plant is surrounded by four Natura 2000 sites, the closest being a few hundred meters from the site across the Danube. None of these Natura 2000 sites will be affected by the Energy Optimisation Sludge Treatment project, as detailed in the EIA, hence fulfilling also the requirements of the Habitats and Birds Directives (92/43/CEE and 79/409/EC).

The impact on the loss of wildlife habitats is also classified as not relevant, since the base area used is surrounded by infrastructural facilities and industrial plants and the project location has no value as a year-round habitat for wildlife. Considering the premises of the plant, no deforestation as defined under forestry law regulations will be required. As detailed in the EIA, it was also assessed that there will be no impact on flora, fauna, and aquatic species during construction and operation.

Building and operating the extension of Vienna's main sewage plant is not expected to have demonstrable impact on the aquatic ecological status of surface water and will not stand in the way of any possible redevelopment of the Danube Canal. The project is also not expected to have any significant impacts on groundwater and hydrogeological situation, as detailed in the EIA.

The Energy Optimisation Sludge Treatment project was reviewed from a medical standpoint to determine whether project-related emissions (air pollutants, sound, and odour pollutants) due to project construction and operation will lead to loads which may harm human health and/or well-being as well as the current use of the surrounding environment. It was concluded, as detailed in the EIA, that construction and operation of the project will cause no emissions related to noise, air pollutants or odour that would unacceptably impair human health and/or well-being (neighbours and operation workers) as well as the current use of the area.

The use of the renewable energy source of sewage gas will lead to positive impact in the operational phase, both on the protected resource of climate and on the protected resource of air. This type of energy generation will allow Vienna's main waste water treatment plant to become energy self-sufficient.

In sum, it can be concluded that construction and operation of the project will result in no unacceptable negative impact on protected resources. The project as a whole can therefore be described as environmentally sound.

Social Assessment

Negative social impacts during construction, demolition or rehabilitation works include the disruption to services, noise, temporary occupation of public or private space, traffic disruptions, and safety hazards. All these impacts will require project management measures to minimise the negative disturbances, inconveniences and impacts.

Positive social impact is expected from significant demolition and construction works, lasting over several years, on the local job market. Besides, it is expected that the project will allow the creation of 10 permanent jobs in operation.

Once renovated, the waste water treatment plant components will reduce odour nuisance to the residents in the vicinity of the plant. The new retention basins will generally benefit public health, by reducing discharge of untreated sewage into the Danube which is an important recreational area.

Public Consultation and Stakeholder Engagement

Public consultation was carried out from 18 December 2013 to 29 January 2014. During this time, no stakeholder requested the documents or expressed comments on the project.

EBS actively engages with the general public. Open door days with guided tours are organised and the plant receives more than 50 school classes per year.

Other Environmental and Social Aspects

In addition to energy recovery from sludge, EBS is actively seeking to reduce energy consumption through use of renewable energy sources on its site. The following units are installed and produce more than 2% of the plant's power consumption:

- a Kaplan turbine on the outlet towards the Danube canal (1,300MWh/year),
- a screw turbine between two functional units in the plant (500MWh/year),
- a wind turbine (10MWh/year),
- rooftop photovoltaic collectors (11MWh/year),
- thermal solar collectors for hot water production (canteen and sanitary equipment).

Since 2007, EBS has had a certified integrated management system for:

- Quality management further to ISO 9001,
- Environmental management further to ISO 14001 and EMAS²,
- Occupational health and safety management system according to BS OHSAS 18001,

which was completed in 2012 by an energy management system according to ISO 50001.

These certificates ensure compliance with highest international standards in the relevant fields.

In 2011 EBS received the European EMAS Award (sponsored by the European Commission) as winner in the category "Medium Sized Organisations".

PJ/ECSO 10.07.12

² Eco-Management and Audit Scheme