Environmental and Social Data Sheet

Overview

Project Name:	OBERVERMUNTWERK
Project Number:	2014-0022
Country:	Austria
Project Description:	The project comprises two pumped storage schemes, Obervermuntwerk II of 360 MW and Rellswerk with 13 MW, for hydroelectric power generation, located in the valley of Montafon in the Austrian region of Vorarlberg, and required reinforcements to the nearby substation. The investment will add balancing capacity to the German power system and contribute to security of supply.

EIA required: yes

Project included in Carbon Footprint Exercise[1]: yes

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

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

The project comprises the implementation and operation of two pumped storage schemes Obervermuntwerk II and Rellswerk for hydroelectric power generation, located in the Austrian state of Vorarlberg at an altitude of between 1700 and 2000 m, and additional reinforcements in a related substation. The project does not require new water reservoirs. In addition, the project scope includes a new head race tunnel for the existing Obervermuntwerk, replacing the existing above-ground penstock.

The project falls under Annex II of the EIA Directive 2011/92/EU. Here, the competent authority, in line with Austrian environmental law (UVP-G 2000), requested a full environmental impact assessment (EIA) including public consultation for the two plants. The competent authority has granted the relevant permit for both plants. The permit for Obervermuntwerk II was appealed by a citizen initiative, raising concerns related to the increased use of an existing high voltage line connecting the facility and potential health impacts for the people living in the area. The appeal was dismissed by the Supreme Administrative Court in Austria, with no further possible appeal.

The main expected impacts of the project on the environment concerns the construction phase, where increased noise, dust, light and emissions are expected due to increased activity and transport to the sites. During the operational phase, expected impacts relate to water level fluctuations in the reservoirs thereby implying potential impacts on the aquatic ecosystems. The project is further expected to have a positive impact on the environment due to the allocation of the head race tunnel for the existing Obervermuntwerk I underground and the removal of the existing above ground penstock, including restoration of the area.

The project is located outside any Natura 2000 site. In August 2013, after the EIA process was completed, findings of the plant Moonwort (Botrychium simplex) in the project area was reported. An appropriate assessment will be performed in the summer of 2014. The issue has been addressed by the competent authority, which confirms that Obervermuntwerk II is

[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.

not expected to have any significant impacts on the existing population of Botrychium simplex and protective mitigation measures have been adopted by the promoter. The promoter shall provide the Bank, after completion of the appropriate assessment, the corresponding confirmation from the competent nature conservation authority that there will not be any significant effects on the plant, including the full appropriate assessment, satisfactory to the Bank.

Based on the above, the project is considered acceptable for Bank financing from a social and environmental point of view, with conditions.

Environmental and Social Assessment

The project was assessed based on national legislation (Umweltverträglichkeits–prüfungsgesetz 2000 (UVP-G 2000)) transposing the EU EIA Directive into national law. By virtue of its technical characteristics (hydro power capacity above 15 MW), the competent authority (the Vorarlberg State Government) requested that a full environmental impact assessment (EIA) including public consultation for both plants be carried out. The procedures for the Environmental Impact Assessment in Austria are part of a regulatory approval process, of which a final positive decision replaces all related permit authorisations.

In July 2009, the promoter, applied for a permit for Rellswerk and in October 2011 for the Obervermuntwerk II. Both applications were accompanied by comprehensive project documentation as well as the environmental impact studies (EIS):

- Different alternatives to the two plants have been analysed in the EISs and compared. From a technical, environmental and economic perspective Rellswerk and Obervermuntwerk II were concluded the most suitable project alternatives.
- The main expected impacts of the project on the environment concerns the construction phase, where increased noise, dust, light and emissions are expected due to increased activity and transport to the sites. This will have an impact on the local community, terrestrial ecology and tourism activity in the project areas. The mitigation measures proposed are typical to large construction sites, consisting of appropriate work methods and work scheduling (concentration of transportation to low season months, avoiding empty drives etc.), as well of regular cleaning and damping of streets. Construction equipment and transportation vehicles will be equipped with particle filters. Noise and emission levels will be regularly monitored during construction.
- Other impacts during implementation are the temporary use of land, for construction activity (access roads, parking) and for excavated soil disposal sites. Mitigation measures include, reuse of the excavated soil in the construction phase (15%), waste prevention and restoration of affected areas. This includes the reforestation of a small area for Rellswerk. Residual impacts on the vegetation of specific sites can however not be excluded.
- During operational phase, expected impacts relates to water level fluctuations in reservoirs hence implying potential impacts on the ecosystem in the waters. An increase water movement may also lead to a partly reduced freezing of specific areas of the Silvrettasee. This may have an impact on tourism in the area due to restricted access to Wiesbadner Hütte (tourist attraction in winter season) and will be compensated by the construction of a new access trail on the side of the sea.
- The project scope for Rellswerk includes the erection of a regulating reservoir. This will imply a change of landscape scenery. Mitigation measures include the design of the basin to best integrate to the existing landscape picture.

Based on the EISs including public consultations, the Vorarlberg State Government, granted the permit for the construction and operation of the pumped storage power plant Obervermuntwerk II on 11 December 2012 and for Rellswerk on 4 May 2010. The authority concluded that the project does not have any significant negative environmental impacts provided that given mitigation measures are implemented. The permits comprise key

conditions, mitigation measures and monitoring obligations, which the promoter undertakes to comply with during implementation under the supervision of the authority.

The permit for Obervermuntwerk II was appealed twice by a citizen initiative together with some individuals. The main concern of the initiative was in regards to potential health impacts for the people living in the area related to an increased use of the existing 220 kV overhead line Partenen-Bürs. The appeal was dismissed by the Supreme Administrative Court in Austria in December 2013, with no further possible appeal. The Supreme Court confirmed the legal opinion of the competent authority, after which the establishment of the citizens' initiative was deemed not to follow appropriate legal procedure and therefore lost their party status.

The project is located outside any Natura 2000 site. In August 2013 however, the competent authority and the promoter were informed of findings of the plant Least Moonwort (Botrychium simplex) in the project area of Obervermuntwerk II. Botrychium simplex is protected by Directive 92/43/EEC Annex II and IV on the conservation of habitats and wild fauna and flora as well as the Bern Convention Annex I. Due to the specific characteristic of the Moonwort (only visible at times during July/August) an appropriate assessment will be performed in the summer of 2014. The competent authority has however, in a written confirmation, stated that the Obervermuntwerk II is not expected to have any significant impacts on the existing population of Botrychium simplex. Mitigation measures to protect the plant have been added to the existing permit.

Part of the project area for Rellswerk is located in the biotope protection area Rellstal-Lünersee, which comprises the "Groβraumbiotop Platzis". The project is not expected to have any significant negative impact on this area.

For the extension of the substation in Bürs, an EIA was not required. The environmental permit was granted by the competent authority in January 2014.

EIB Carbon Footprint Exercise

In accordance with the Bank's Carbon Footprint methodology, it is calculated that the total estimated emissions savings of the pumped storage plants are 142 000 tonnes of CO2 equivalent per year. This calculation assumes that emissions for electricity consumed for pumped storage are based on the Country Grid Factor and that 50% of generated electricity substitute power generation in existing fossil fuel based power plants whilst 50% substitute power generation in new gas-fired combined cycle power plants.

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

Consultation of the public and relevant authorities is an integral part of the EIA process. Public consultation has been conducted in May 2012 for Obervermuntwerk II and February 2010 for Rellswerk and comments and complaints were documented and included in the environmental permits.

Other Environmental and Social Aspects

The project is constructed at already existing hydro power sites, and is not causing any resettlements. Occupational and community health and safety issues are deemed appropriately addressed in the authorisation process. The promoter has a comprehensive health and safety policy in place. The implementation of the project is not expected to raise significant social issues.

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