Luxembourg, 11 December 2015

Environmental and Social Data Sheet

Overview

Project Name:	*GEMEINSCHAFTSKRAFTWERK INN (2015-0250)*
Project Number:	*2015-0250*
Country:	*Austria*
Project Description:	*Construction and operation of a new 89 MW hydroelectric plant on the river Inn in the Upper Inn region on the Swiss-Austrian border.*

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 consists of the construction and operation of a new 89 MW hydroelectric plant on the river Inn in the Upper Inn region on the Swiss-Austrian border. It is part of the Inn river hydroelectric power generation cascade, between the existing hydroelectric plants Pradella-Martina (Switzerland) and Prutz-Imst (Austria), The scheme will be operated as a run-of-river hydroelectric plant with limited water storage and with the largest part of it to be built underground. It consists of the three main elements: a reservoir of 500.000m3 and weir system, an underground 23km pressure tunnel and an underground powerhouse with new electricity generating equipment. The connection to the Austrian high voltage system will be through the underground transmission cable to the existing substation in Kaunertal power plant. The project scope also includes a fish pass and a small hydro power plant that will use residual flow to generate electricity.

The project exploits the available water resources of the Upper Inn river to generate renewable electricity for supply to the public grid while also managing the flow of water to protect the local ecosystem against water flow peaking. It will generate up to 447 GWh/a of renewable energy for supply to the Austrian electricity grid, replacing alternative fossil fuel-fired generation and thereby avoiding the release of significant amounts of carbon dioxide and other polluting emissions to the atmosphere.

The project has gone through the full environmental impact assessment (EIA) including public consultation in line with Austrian and Swiss environmental law. The promoter has provided a copy of the EIA studies, the Non-Technical Summary and the environmental permits. The project has been legally challenged by third parties during and after permitting due to concerns about environmental impacts. According to the permits issued by the competent authorities, the water bodies of the Inn river affected by the project are currently designated as heavily modified water bodies. In the legal assessment of the EIA approval (UVP-Berufungsbescheid), the Umweltsenat noted that the significant improvements in the residual flow stretch cannot make up for the deterioration in the upper portion of the water body. Residual negative impacts are limited to the upstream weir system in Ovella in the length of about 2.6 km, leading to a deterioration of the ecological status (of state class 4 to 5 according to local legislation) in the affected area. Therefore the Umweltsenat, required an assessment of the cumulative conditions for granting an exemption, in accordance with the relevant legislation in Austria (§ 104a para. 2 WRG be 1959) and in line with Article 4.7 of WFD. The assessment (UVP-Berufungsbescheid) concluded that a) all practicable steps to mitigate the adverse impacts on the status of surface water or groundwater body have been

[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.

taken, b) the promoter has committed to comprehensive ecological monitoring c) confirmed the public interest in the implementation of the project (the project is also included in Austria energy strategy, a publicly consulted document) and d) the project objectives (RE production, reduction in CO2 emissions etc.), cannot be achieved by other means. In particular, the Umweltsenat confirmed that potential alternatives to the project would either not comply with state-of-the-art technology or would impose disproportionally high cost without significantly reducing the residual the environmental impacts. The project has been integrated in the regional water management plan for the Inn river “Wasserwirtschaftlicher Rahmenplan für das Tiroler Oberland“ which defines zones for development of hydro power plants in Tyrol. As of today, there are no appeals pending against this project.

The project is outside and does not have a negative impact on any Natura 2000 site. Still, the project design includes a large set of landscaping and environmental measures to improve the local biodiversity as well as to improve the recreational and landscape value of the area.

Overall, the procedures followed by the promoter are in line with EU and national legislation and the project’s impact on the environment is considered acceptable. Considering the appeals faced during authorisation, the Bank will closely monitor the implementation of the required monitoring and mitigation measures as specified in the relevant environmental consents.

Environmental and Social Assessment

Environmental Assessment

The project is a new hydroelectric power plant within an existing hydroelectric power generation cascade in the Upper Inn region that started to be developed in 1920-es and the first hydro power plants constructed in 1950-es. It is integrated in the regional water management plan of Inn river “Wasserwirtschaftlicher Rahmenplan für das Tiroler Oberland“ which defines zones for construction of hydro power plants in Tyrol.

The project is developed under the International Treaty signed between Austria and Switzerland in 2007, which provides the basis and the formal consultation platform for the project including on transboundary environmental impacts in accordance with Espoo convention. The concessions for 56 years were granted in 2010 by Switzerland and in 2012 in by. Competent authorities of Austria and Switzerland signed in 2010 MoU which specifies the conditions for project authorizations.

The project falls under Annex II of the EIA Directive 2011/92/EU. Here, the competent authorities, in line with Austrian and Swiss environmental law (UVP-G 2000), requested a full environmental impact assessment (EIA) including public consultation. The competent authorities granted the relevant 1st instance permits both in Austria and Switzerland in 2010. The permits in both countries were appealed by citizen initiatives, raising concerns related to the assessment of the project alternatives and potential negative impacts for the people living in the area, specifically in relation to fish ecology. The appeal was dismissed by the national authorities: in Austria (Umweltsenat) and in Switzerland (Federal Administration Court), on the grounds that the project was the best alternative from economic, technical and environmental perspective. Final environmental permits were issued in 2011 (Switzerland) and 2012 (Austria).

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 (noise protection barriers, tyres washing system for construction machinery, 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, waste prevention and restoration of affected areas. During the excavation work for the weir system and the powerhouse, but in particular when digging the tunnel, a total of roughly 1 million m3 of material will be excavated from the mountain. To avoid transporting this material with lorries, a sophisticated recycling and storage concept will be applied. All excavated material which is suitable for the manufacture of concrete will be used directly on-site in the production facility in Maria Stein for the production of the concrete segments. Material that is not suitable will be disposed in the near-by storage area.

In order to ensure that fish can pass the weir system when swimming up and down the river, a fish pass has been integrated on the orographic right of the weir system in cooperation with biodiversity experts. The fish can pass the weir system upstream by means of 75 pools that are arranged as steps. In addition, impact on migrating fish is mitigated through the construction of fish paths and fish lifts at the hydro power plant Kaunertal downstream from the project, with specified seasonal minimum environmental flow rates and subject to an extensive monitoring programme.

An extensive programme of mitigation measures has been proposed to mitigate the impact of the project and to compensate for unavoidable negative impacts, including an underground powerhouse that has a minimum impact on landscape and operates very quietly, establishment of replacement habitats (pools, gravel pits and oxbows) and the replacement of areas of biodiversity importance.

During the winter and in the weeks before and after winter, a constant, ecologically adapted minimum acceptable flow is released. In the summer season, the dynamic residual water model requires the adaptation of the residual flow to the natural tributaries of the Inn. This water is also used in an economically sensible manner as an additional separate turbine at the weir generates electricity. The water-level of the Inn near St. Moritz in Switzerland will not be influenced and is used as the reference for the release volume. The more water flows past the measurement point there, the more is released at the weir in Ovella. The minimal environmental flow is estimated on the conservative basis, as a minimal natural flow in 95% of the time of the river Inn flow measurements. It is defined as 5.5 m3/s in winter (from 16/09 to 30/04), 7 m3/s in spring and autumn (from 01/05 to 15/05 and from 01/09 to 15/09) and between 10 and 20 m3/s in summer (from 16/05 to 31/08) on the basis of dynamic ecological model.

All areas used during the construction will generally be replanted with plants, grass and woodland after the project has been completed. Promoter will also implement various measures which will improve the Inn as a natural habitat. Example of this are the creation of natural habitats in Maria Stein and the widening of the Inn‘s river bed at various points, where gravel banks and islands will be set up that will act as stream breakers and riverside woodland will be planted. The implementation of the compensation measures as well as the ecological restoration will be monitored by the independent ecological construction supervisory.

EIB Carbon Footprint Exercise.

In accordance with the Bank’s Carbon Footprint methodology, it is calculated that the total estimated emissions savings of the hydro power plant are 224 800 tonnes of CO2 equivalent per year. This calculation assumes 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.

Social Assessment

The promoter’s capacity and organisation to implement to project is considered to be good. The project will be operated by an experienced company that is mostly owned by the promoter. Site visits demonstrated the appropriate implementation of health, safety, security

and environmental standards. Negative impacts during construction, including from noise, dust and increased traffic, will be monitored and appropriately mitigated. The project is not causing any resettlements. The implementation of the project is not expected to raise significant social issues. The project will also create job opportunities both during construction and operation (four permanent jobs are expected to be created for the operation of the facilities).

Public Consultation and Stakeholder Engagement

The project has been the subject of extensive public consultation and stakeholder engagement, which is documented in the environmental permit. During the EIA process, both at the local and the national level, comments have been introduced by the stakeholders, including local NGOs. All comments have been analysed and commented by the local and national authority (“Umweltsenat”) concluding positively on the project.

Environmental Monitoring

Environmental monitoring systems will be established during the construction and operation period in accordance with the environmental permit and EIA report. The central part of it is a comprehensive fish monitoring programme developed by fish experts under the control of the nature conservation authorities.The fish monitoring programme contains quantitative fish stock recording and mapping every 3 years for at least 12 years during the operation period, annual qualitative young fish survey from spring to autumn, regular functionality checks of the fish pass every 3 years in the periods of quantitative surveys and a telemetric investigation (for 1.5 years) in order to analyze the fish migratory behavior depending on the surge. Environmental monitoring also includes forestry, wild fauna, water, agriculture, biodiversity and waste.

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