

Environmental and Social Data Sheet

Overview

Project Name: **MVM ELECTRICITY AND GAS STORAGE**
 Project Number: 2013-0348
 Country: HUNGARY
 Project Description:

The project consists of 19 electricity transmission schemes aimed at reinforcing and extending the Hungarian electricity transmission network and 4 gas storage project schemes targeting reconstruction and upgrade works in underground gas storage facilities to achieve better operational efficiency, increased reliability and improved environmental performance of the gas storage facilities.

15 out of 19 electricity transmission schemes are related to reconstruction, replacement or development of substations situated in dispersed locations in Hungary. The rest of the electricity transmission schemes (4 out of 19) are related to high voltage transmission lines. Namely, two project schemes will install the Hungarian sections (~40 km) of the two new 400 kV OHL interconnectors between Hungary and Slovakia, with the required substation extensions (EU Projects of Common Interest). One project scheme includes replacement of optical ground wires on existing high voltage overhead lines and another will convert a 750 kV transmission line currently not in use to 400 KV.

The 4 investment schemes aiming at the reinforcement and upgrade of existing Underground Gas Storage (UGS) facilities are the following: (i) reconstruction of the injection system at Pusztaederics UGS, (ii) reconstruction of the measuring system on gathering North Station at Hajduszoboszlo UGS, (iii) installation of a gas cooler into the withdrawal system at Hajduszoboszlo UGS and (iv) various well work-overs at four UGS.

EIA required: yes (for 4 project schemes out of 23)
 (Those project schemes are scheduled for later period of the investment programme, therefore, completion of EIA including appropriate assessment if necessary and receiving the environmental permits, are disbursement conditions for the applicable part of the loan.)

Project included in Carbon Footprint Exercise¹: 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

Four project schemes, which include high voltage overhead line developments, fall under Annex I of the EIA Directive requiring full environmental impact assessment to be carried out. One of the cross-border interconnector lines will most likely have to cross a Natura 2000 area; therefore, an appropriate assessment will have to be carried out. The project schemes requiring EIA and appropriate assessment are currently in a very early preparation stage. The EIAs and the environmental permitting process are scheduled for 2015-2016. The remaining project schemes, which actually constitute the vast majority of the programme, fall under Annex II of the EIA Directive but do not require full EIA being screened out given the technical characteristics of the projects and the thresholds established under Hungarian EIA legislation.

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.

In general for the planned project schemes appropriate mitigating actions, which are typical and usually widely implemented, can reduce negative environmental consequences. Recent project experience and the current appraisal process confirmed that the Promoters have proper experience and adequate capacity to deal with environmental and social issues.

In the finance contract the following disbursement condition should be introduced:

Disbursement of part of the loan, which can be attributed to project components requiring full environmental and social impact assessment and appropriate assessment, currently amounting to 25% of the loan, is conditional upon completion of EIA and environmental permitting process, including appropriate assessment if required, to the satisfaction of the Bank.

The Promoters undertake to submit to the Bank a copy of Form A or B signed by the competent authority for the project schemes not going through a full environmental impact assessment because of being screened out given the technical characteristics of the projects and the thresholds established under Hungarian EIA legislation. The forms are to be submitted before construction starts on the individual project schemes.

Overall, with the above disbursement conditions and undertaking in environmental and social terms the project can be considered acceptable for financing for the Bank.

Environmental and Social Assessment

Environmental Assessment

The appraisal focused on experience and capacity of the Promoter to manage environmental aspects of the projects. This included review of completed EIAs and environmental permitting process for similar projects. The environmental ability of the promoter appears adequate. During the appraisal mission the promoter confirmed to have in place the main typical measures to mitigate the impacts on the environment of power lines and substations. These include the installation of flight diverters and nesting platforms on sensitive corridors to prevent birds' impact and electrocution, the encapsulation of transformers to reduce noise levels and proper containment in substations to avoid seepage of oil into the soil. Moreover the Promoter confirmed that in order to minimize the environmental risk when designing and implementing new transmission lines the following main principles are applied:

- The transmission lines are routed as much as possible through peripheral, mainly agricultural areas and through forests only when necessary.
- Where it is conceivable the new transmission lines are routed next to the existing lines in order to reduce occupation of new territory and mitigate visual impact.
- The air pollution related to the construction works has to be limited and kept local to the construction area in order not to affect populated areas and a negligible impact on local emission characteristics has to be retained.
- Appropriate mitigation measures are planned to minimize and keep below the authorized limits the noise level related to the construction and operation of the overhead transmission line and transformer substations.
- The strength of electromagnetic fields related to the transmission lines has to remain below the internationally accepted limits.

The transmission lines are going to be built according to common practices that are applied internationally and within EU.

All the gas storage project schemes will be implemented within existing installations.

Some of the project schemes have definitive positive impact in environmental terms. The reconstruction works aimed at replacing aging assets on the electricity transmission system and on the underground gas storages, (transformers, compressors, heat exchangers) will reduce the environmental load caused by the old equipment (soil and ground water pollution, high volume of cooling water utilization etc.) and will reduce energy usage for injection operation at one of the gas storages.

Overall the planned project schemes, if appropriate mitigating actions are implemented, are likely not to have significant negative consequences, provided that the outstanding EIAs do not identify particular unacceptable impacts on environment or nature conservation sites.

EIB Carbon Footprint Exercise

The carbon footprint calculations were focused on the new high voltage interconnectors. The purpose of these transmission lines is to increase cross border capacity with cheaper marginal coal-based generation sources in Slovakia to replace marginal gas-fired generation in Hungary. The new lines will have 1.2GW capacity and expected to have 50% load. Network losses in the whole network in 2012 were 0.94% of total transmitted energy. Since the vast majority of flows is expected to be in the direction Slovakia->Hungary, Slovakia's grid factor was applied. The estimated emissions savings are 123 kt of CO2 equivalent per year.

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, where required

The Regional Departments of the National Inspectorate for Environment, Nature and Water are responsible for evaluating the EIA documentation supplied by the promoter and collection of the opinion of the public and private instances, including arrangement of public consultations.

Other Environmental and Social Aspects

MAVIR ZRt. runs an Integrated Quality System covering the entire operation. The company's certificates verify that MAVIR is in compliance with the requirements of standards ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 and ISO/IEC 27001:2005.

Trying to go beyond basic compliance with environmental protection regulations MAVIR has established voluntary environmental programs involving the entire company. As a pilot, "close-to-natural" maintenance of openings has been introduced along transmission line routes. MAVIR also conducts successful bird protection programs in cooperation with bird preservation organisations. In 2012 MAVIR won the CSR (Corporate Social Responsibility) Hungary Award in the category of "Environment/Green Excellence".