

MVE Želiezovce s.r.o.



Basic Information

Project name: MVE Želiezovce s.r.o.

Borrower: MVE Želiezovce s.r.o.

Sponsor: Hydroenergia s.r.o.

Sector: Renewable energy

Country: Slovakia

Financial Product: Project Financing

VUB's role: Mandated Lead Arranger

Equator Principles category: B

Project description

The Project is situated in Želiezovce southern Slovakia on the river Hron. Hron is the second longest river in Slovakia with the length of 298 km. A weir is going to be built on the 38,45 km of the river Hron.

MVE will consist of the following objects and components:

- water – gate: three 12m wide fields; flap closure will be installed to enable manipulation during the winter operation
- bio corridor with parameters set to provide the fauna transition between MVE and the weir
- MVE three stories building with installed technology is situated beside the three fields water-gate (right side) - 2 direct current horizontal Kaplan turbines of 2500mm will be installed; turbines will be connected to synchronous generators with a nominal output of 1400kW/1750kVA which will be connected through block transformers with the 22 kV box substation
- Old river bed damming - this dam will provide that the river flow is directed to the new built water gate and MVE
- River bed above and under the hydro nodal point will be adapted and deepened
- Since the new MVE will increase the water level above the Želiezovce village, dams on left and right river side will be built
- Part of the project is also building of infrastructure, landscaping, fencing, well
- Because of the realization of the Project two pumping stations of the irrigation system Želiezovce – Kamenný most will have to be reconstructed (one above and one under the MVE)
- It is expected that following the river bed deepening the road bridge pillars will have to be supported

Key Environmental Impacts and Risks

- Interference with habitats (biotopy), especially shore vegetation
- Impact on ichthyofauna changing the river flow character and building the barriers for migration
- Change of the underground water regime in the construction surroundings

Key Social Impacts and Risks

Negative only during the construction period such as increased noise level, dust in the part of Mikula where the slip road to the construction site will be situated; this impact is time limited and there are no health treats expected; however the investor is obliged to undertake the measurements to mitigate such impacts

Mitigation measures

- Management plan
 - It will set out the principles of the care of the affected area during construction works and operations of MVE Želiezovce with the aim to ensure a favorable status of habitats
 - Remediation measures will be provided in line with the Methodological guidance of Obvodný úrad Životného prostredia Levice
- Monitoring of habitats during construction and 10Y operations
 - Objective of this monitoring is to assess the impact of realized construction activities on existing habitats with the aim to apply and modify protection measures to ensure the conservation of monitored biotopes in line with the Methodological guidance of Obvodný úrad Životného prostredia Levice
- Ichthyology monitoring during construction and 10Y operations
 - Monitoring will be provided in line with the Plan of fish transfer monitoring on the Želiezovce weir-gate
- Monitoring of groundwater level
 - The goals of this monitoring are the following:
 - to adjust underground water level in line with the Study about the impact of underground water level changes on the tree vegetation in the area concerned;
 - Tracking of water movements around the MVE Želiezovce
 - Numerical model elaboration

Positive Impacts

- As an environmental benefit of the Project the Air pollution reduction was stated (in comparison with electricity production by burning fossil fuels)
- Another benefit of the Project is the improvement of the flood protection (weir construction above the hydro nodal point and riverbed deepening)
- After the construction of the MVE Želiezovce a positive impact on the population is expected particularly in relation to the increased recreation potential of the area; an important benefit will be the access road over the dam which enables the access to the left riverbed of Hron and new recreation areas can originate on the right riverbed under the hydro nodal point as well; cycling opportunities will expand
- During the construction ca 50 new working opportunities shall arise