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EKOenergy eligibility for Makkarakoski and Pyhännäkoski HPP

The Finnish electricity supplier Loiste Energia Oy (Mother of EKOsähkö, which is a Licensed seller of EKOenergy) is applying for EKOenergy eligibility of two Finnish hydropower stations. The power stations are Pyhännäkoski in Ristijärvi and Makkarakoski in Noormarkku.

About the power plants:

The Makkarakoski hydropower plant was built in the beginning of 20th century to provide electricity for the ironworks of Noormarkku on South West coast of Finland. The power plant has two generators with capacity of 170 kW and 220 kW. Together they produce about 840 MWh of electricity per year. The volume flow of the power station is 7,5m³/second and its head is 3 meters. A fish pass was built to the power station in 2012. The fish pass is 86 meters long and it has a water flow of 0,4 m³/second. The Pyhännäkoski hydropower station was built in 1957 in Ristijärvi, Kainuu Region in Eastern Finland. It has a capacity of 3 MW with head of 15 meters. Its annual production is 3-5 GWh.

The measure

The power station owner proposes to change the regulation habits of Pyhännäkoski to get EKOenergy eligibility. The changes would be based on recommendations made by five river ecosystem and hydropower specialists (recommendations made already in 2003). The main changes are: 1. the owner would voluntarily keep the water level (upstream) always over 146 meters above the sea level. This way they would improve natural habitats of benthos and aquatic flora. 2. During summer time the water level would be left lowering naturally. 3. The supplier provides public, illustrated, online data of the water levels.

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Consultation round

The EKOenergy Secretariat organized a public consultation round. Stakeholders got two weeks to give their opinion on the application. According to our earlier knowledge and this consultation round, none of the power stations are controversial on the local level.

There was only one concerned answer about Pyhännänkoski. One person commented that a fish passage could possibly be built. That would improve habitats for fish. However, the migration routes downstream are blocked by a big hydropower plant Leppikoski, which does not have fish passes. In theory there are some spawning areas upstream from the power plant - especially in river Hiisijoki. The fish pass would affect heavily in profitability of this power station because of high head and low volume flow.

The proposed measure itself cuts turnover of the power plant by 15%-20% compared to the situation where the power plant owner would regulate the plant on optimal level (from economic point of view).

The decision

EKOenergy grants eligibility for Makkarakoski and Pyhännänkoski power stations for five years.

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