

EKOenergy – Network and label

8.3 Specific requirements

C. Hydroelectric power

The EKOenergy Network promotes an environmentally conscious hydropower industry, minimal impact on nature from existing installations, and the protection of habitats and ecosystems of free-flowing rivers. The EKOenergy ecolabel aims at prevention and mitigation of the environmental impact of hydropower in the immediate site of the power plant and in the affected water course or compensation elsewhere.

EKOenergy does not support the construction of new hydropower dams. We accept power plants with dams that started operation before 1st January 2013. EKOenergy focuses on power plants that are able to provide information that is needed for ecolabelling.

Suomen  luonnonsuojeluliitto

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FRESHABIT LIFE IP (LIFE14/IPE/FI/02)

River Fund

EKOenergy hydroelectricity sellers contribute to the EKOenergy River Fund, in addition to the licence fee (see 6.3.) and contribution to the Climate Fund (see 9.1.),

For each megawatt-hour sold as EKOenergy hydropower, a contribution of minimum 0,10 euro (ten eurocents) is paid into the River Fund. The hydroelectricity seller may apply for liberation from the River Fund fee if the plant where the electricity derives from, has reached the advanced level in all three environmental requirements.

The EKOenergy River Fund is managed by the EKOenergy Secretariat, under the supervision of the EKOenergy Board. Costs related to the management of the Fund must not exceed 5% of the amount contributed to the Fund.

The funds raised for the River Fund are used to implement projects that help to avoid, reduce, mitigate or compensate the environmental damage caused by hydropower. An open call for projects is organized annually. The geographical target of the call takes into account the country of origin of the electricity production and the country where the electricity has been sold. Project proposals are evaluated by an independent expert panel. Important elements in the selection of the projects to be financed are ecological significance, cost-efficiency, ecological and social impact, opportunities for co-financing, communication potential and the financial solvency of the applicant.

The financed projects are managed by the beneficiaries who are in charge of the implementation and communication of the project. The EKOenergy Secretariat communicates about the project outcomes in collaboration with the suppliers from whom the money originated through EKOenergy sales.

Environmental requirements for hydroelectric installations

General requirements for EKOenergy (e.g. fulfilling all legal requirements, see 8.2.) assume that the operation of the hydropower plant is in compliance with its legal concession and permit documentation.

In addition, EKOenergy sets specific environmental requirements for hydropower installations. They include three criteria: water flow, fish migration and river habitats. Each criterion includes basic performance level and advanced performance level. For the hydropower installation to qualify for EKOenergy, within each criterion the basic level must be reached. In addition, an advanced performance level must be reached within *one* of the three criteria. However, if the advanced level is reached in *two* criteria, it is possible to apply for liberation from the third criteria.

Criterion 1. WATER FLOW. The river is never dry.

Description	The operation of the plant guarantees an adequate and uninterrupted flow in the river reach through turbines and/or through a bypass channel.	Indicators
Basic level	Minimum water discharge at discharge points is defined by using average low flow as a reference. Hydro-peaking with zero flow to the bypass reach (if present) or to the lower channel i.e. tail race (if bypass is not present) does not occur in normal operation of the plant. Exceptional shortcutting and accidents which leads to zero flows must be reported with a new established plan to avoid them.	Points of flow measurements on a map, flow curves (m ³ /s), average low flow of the river (m ³ /s), minimum discharge through plant (m ³ /s), minimum discharge through bypass (m ³ /s), reports
Advanced level	In addition, ecological flow for the river has been defined, including minimum flow, maximum flow, timing of flood events, variability over time, seasonality, speed of ramping up and down the peaking. It is applied in the operation of the power plant, and/or in the planning of relevant mitigation measures.	Report on ecological flow, report on application in the operation

Criterion 1 is not applied in cases where the plant is located in a water supply tube or in an irrigation canal.

In cases of plants with reservoirs high up in mountains/fells and a tube system for intake and outflow of water to power plants, criterion 1 is applied discharge points that water downstream river reaches.

Criterion 2. FISH MIGRATION. Fish can pass the hydropower plant.

Goal description	Locally relevant fish species can pass the hydropower installation upstream and downstream on their own as needed.	Indicators
Basic level	Fish pass exists (natural bypass or technical fish pass). The function of the fish pass has been monitored.	Photograph, plant and fish pass on a map, monitoring report.
Advanced level	In addition, the feedback from monitoring is applied to improve the function of the fish pass, considering upstream and downstream migration. The measures improve, for instance, upstream and downstream migration routes, adaptive management of watering and flow, turbines and directing fish to the fishway.	Report on adjustments of the fish pass.

Criterion 2 is not applied in the following case: Power plant is located in a place where no fish could pass neither upstream nor downstream even before the construction of the applying power plant (and other plants of the water body) and the power plant operation does not diminish possibilities for fish migration on other river stretches.

Indicator: Report on the power plant's location.

Criterion 3. RIVER HABITATS. Stream-inhabiting species have a place to live and breed.

Goal description	Habitats for species that inhabit and reproduce in the river ecosystems are maintained and/or restored in the section of water body affected by the hydropower plant.	Indicators
Basic level	All-year-round watered habitat, suitable for river organisms, is preserved or restored in the river reach, in a natural bypass channel, in old natural reach and/or in a compensatory reach built for this purpose. The habitat is accessible for the river organisms in relation to the plant site. It's quality and quantity can be reported.	Accessible habitat locations on a map, area of habitats (m3, or m3/per 100 m river stretch), reports.
Advanced level	In addition, the function or habitats as a living and breeding environment for river organisms is monitored. The feedback from monitoring is applied to increase the quality and/or quantity of the habitats. The measures improve e.g. flow conditions and bottom substrate.	Breeding result of specified river organisms (e.g. smolt production per hectare), report on measures to improve habitats.

Criterion 3 is not applied in cases where

- Plant is located in a water supply tube or in an irrigation canal.
- Applicant chooses to pay an additional contribution of ten eurocents per megawatt-hour of the annual sales of EKOenergy to the River Fund. This is an option when the plant is located in a heavily modified river where all accessible habitats have been lost and they are not restored and no compensatory habitats have been created.

In cases of plants with reservoirs high up in mountains/fells and a tube system for intake and outflow of water to power plants, criterion 3 is applied in downstream river reaches.

Application procedure, publicity and validity period

Electricity from hydropower installations can only be sold as EKOenergy after an application procedure. The procedure to get plant(s) approved is as follows:

- Application to the EKOenergy Secretariat according to the Guidelines (ANNEX). The applicant is the producer of the electricity, or optionally the trader or seller.
- Fact-check and public consultation
- Decision-making and approval of the power plant(s) by the EKOenergy Secretariat

A separate application should be submitted for each power plant. All measures that are necessary to fulfil the requirements need to be completed before the approval can be issued.

Public consultation means that the application will be available online for a minimum of 30 days. Relevant stakeholders and the EKOenergy Board are informed and asked to comment as needed. Relevant stakeholders include in particular national or regional environmental and fisheries NGOs, member organizations of river basin management cooperation groups.

The list of EKOenergy-approved hydropower plants is publicly available on www.ekoenergy.org. The list includes a summary report showing how the criteria were met by the power plant.

The approval of hydropower plants is valid for 5 years, thereafter the application can be renewed with updated information.

A hydropower plant will be removed at any time from the list if it does not fulfil

- a) all legal requirements in force at the place of production and imposed by its permits (see also paragraph 8.2).
- b) environmental requirements for hydroelectric installations (as described in paragraph 8.3.), as accepted during the issuing process and verified with application documents.

In case of force majeure that temporarily interrupts fulfilment of the criteria, an exception from removal can be applied. A force majeure is e.g. natural disaster or sudden legal conditions that clash with the environmental requirements of EKOenergy.