Application form for the approval of a hydropower plant for the sales of EKOenergy-labelled electricity

Please fill and send back to info@ekoenergy.org. You can write to the same email-address if you have questions or comments. We will be happy to help!

General background information:

EKOenergy doesn’t label or certify power plants as such. Instead we ecolabel sales and consumption of renewable energy. Only the electricity of approved power plants can be sold as EKOenergy. Only licensed sellers can sell EKOenergy-ecolabelled electricity.

The general requirement is that the operation of the installation complies with all legal requirements, as well as with the requirements of concessions and permits (See also chapter 8.2)

In addition, EKOenergy sets specific environmental requirements with regard to fish migration, water flow and river habitats. Each criterion includes basic performance level and advanced performance level. For the hydropower installation to qualify for EKOenergy, the basic level must be reached within each three criteria. In addition, an advanced performance level must be reached within one of the three criteria.

Special situations and exceptions:

• These additional requirements don’t apply with regard to installations located in completely artificial water bodies such as water supply tunnels or irrigation canals.
• Hydropower installations with a capacity of less than 1 MW may be dismissed if the electricity production is minor compared to the adverse environmental impact.
• If the advanced level is reached in two criteria, it is possible to apply for liberation from the third criteria for a justifiable reason. EKOenergy’s Secretariat decides on the exemption based on a careful and written consideration of all elements.

Also note: EKOenergy only works with power generation from dams and barriers that are constructed before 1 January 2013. However EKOenergy can accept power plants constructed more recently if there are no new negative impacts on the water body, e.g. replacements of old dams or installations that do not dam the entire flow or the river.

An approval is valid for 5 years and can be renewed.

For the full criteria, see chapter 8.3.C of the text “EKOenergy – network and label”, at www.ekoenergy.org
BASIC INFORMATION OF THE POWER PLANT

Name of the hydropower plant ______________________________________________________

Year of construction ____________________

Fall height ___________________________

Capacity and annual electricity production (on average) ______________

Turbine type _________________________

Optimized flow through the turbines, (m$^3$/s)________

Owner and contact information _____________________________________________________

Operator of the plant (if not the same as the owner) and contact information _________________

______________________________________________________________________________

LOCATION AND TYPE OF POWER PLANT

Please indicate the type the hydropower plant:

☐ A run-of-river installation, operating with the incoming flow of the river
☐ An installation in a river reach/mouth of a lake with storage upstream
☐ An installation in a tunnel system with water intake from storage upstream → criteria 1 and 3 are applied in downstream river reaches. Application of criterion 2 on a case by case basis.
☐ An installation in a water supply tunnel or irrigation canal → criteria 1-3 are not applied
☐ A pumped-storage installation
☐ Other, describe: __________________________________________________________

Please give basic information about the water basin and the river:

What is the name of the water basin where the power plant is located?____________________
What is the name of the river (or tributary)? ________________________________
What is the name of the storage or lake upstream? ________________________________
What is the name of the regulation dam that directs the water flow to the plant? ________________
What is the ecological state of the water basin where plant is located? ________________

Attachments - The documents indicated with an asterisk (*) are compulsory.

☐ Map showing the plant’s location in the water basin area*
☐ Map showing the water intake and outflow of the plant in the context of a river, tunnel system and/or canal*
CONCESSIONS AND PERMITS

Issuing year of the permit(s), and according to what law? ________

Have the conditions of the concession or the permit been updated afterwards? Please specify ____________________________________________

Please describe the content of the permit and present state of fulfilment of its obligations:

<table>
<thead>
<tr>
<th>Included in permit (yes / no)</th>
<th>Fulfilled (yes / no)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water level regulation</td>
<td></td>
</tr>
<tr>
<td>Water discharge</td>
<td></td>
</tr>
<tr>
<td>Water redirection (e.g. to bypass channels)</td>
<td></td>
</tr>
<tr>
<td>Taking care of fish population (fish passages, restoration measures, fish stock seeding, other measures or a combination of these), fisheries fees</td>
<td></td>
</tr>
<tr>
<td>Other obligations</td>
<td></td>
</tr>
</tbody>
</table>

Attachments

☐ Valid permit(s) for the power plant*
☐ Relevant updates and changes in the original conditions of the concession or the permit (if applicable)

REQUIREMENT 1. FISH MIGRATION

Applied in all cases, except when the dam or barrier is located on a place where no fish could pass for natural and geographical reasons (e.g. a high waterfall) and power plant does not diminish possibilities for fish migration on other river stretches.

| Have fish moved downstream passing the location of the plant, before the plant was built and river constructed? | Yes / No / Don't know |
| Have fish moved upstream passing the location of the plant, before the plant was built and river constructed? |                     |
| Does the power plant operation diminish possibilities for fish migration on other river stretches? |                     |

Please name the dams (constructions, barriers) that hinder fish migration _________
**Basic level**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes / No / Don't know</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does a fish pass exist?</td>
<td></td>
<td>Year and type of the construction:</td>
</tr>
<tr>
<td>Are the fish species using the fish pass known?</td>
<td></td>
<td>Fish species:</td>
</tr>
<tr>
<td>Has the amount of fish been verified by monitoring?</td>
<td></td>
<td>Amount of fish:</td>
</tr>
</tbody>
</table>

**Attachment, basic level of criterion 1**

- [ ] Photograph of the fish pass*
- [ ] Fish pass on a map (in context of the hydropower plant)*
- [ ] Report on the operation of the fish pass*

**Advanced level**

Please describe the fish pass

- Water availability (e.g. some months, all year round)  
- Water flow (m³/s)  
- Does the fish pass include reproduction/spawning areas?

What feedback has been collected and applied to improve the function of the fish pass?

<table>
<thead>
<tr>
<th>Category</th>
<th>Feedback collected</th>
<th>Feedback applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream migration routes</td>
<td>Yes / No / Don't know</td>
<td>Yes / No / Don't know</td>
</tr>
<tr>
<td>Downstream migration routes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water availability and flow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Directing fish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Attachments, Advanced level of criterion 1**

- [ ] Report(s) on adjustments of the fish pass or other developments of fish migration solutions
- [ ] Report(s) on fish surveys in the power plant impact area
REQUIREMENT 2. WATER FLOW

Note: In the case of power plants with reservoirs high up in mountains/fells and a tunnel system for intake and outflow of water to power plants, criterion 2 is applied at discharge points downstream of the power plant.

Basic level

What is the average low flow of the river, m³/s? ___________________________
Is there a bypass present (Yes / No / Don't know)? __________________________

<table>
<thead>
<tr>
<th>WATER DISCHARGE</th>
<th>Flow min m³/s</th>
<th>Flow max m³/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through turbines to lower channel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the bypass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the fish pass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Through flood locks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In other discharge point(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(where? __________________________)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In normal operation of the plant, do zero flows occur: (Yes / No / Don't know)

in the lower channel? _______________
in the bypass channel? _______________
in the fish pass? _____________________

Attachments, Basic level of criterion 2

☐ Locations of flow measurements (discharge points) on a map*
☐ Flow curves (m³/s) at discharge points*

Advanced level

Please describe the ecological flow of the river by seasons.
E.g. What method has been used to define the ecological flow? What are the natural flow conditions in the water body during annual cycle (dry season, flood season, etc)? What is the water flow of the river in terms of minimum, maximum and annual average flow (m³/s)? What is the relevance of these flow conditions to the ecosystem?
______________________________________________________________________________
______________________________________________________________________________

Please describe the use of ecological flow in plant operation.
E.g. What adjustments are made in the hydro-peaking of the power plant? How are the impacts of flow regulation up and downstream from the plant mitigated, in terms of high and low water levels (meters) and flows (m³/s)?
______________________________________________________________________________
**Attachments, Advanced level of criterion 2**

- [ ] Report on ecological flow
- [ ] Report on application of ecological flow in the operation of the plant

**REQUIREMENT 3. RIVER HABITATS**

**Basic level**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes / No / Don't know</th>
<th>Please describe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there stream habitats preserved, restored or created in the river/tributaries?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the habitats accessible in relation to the plant’s location?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the habitats watered all year round?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the total area of the habitats known? In m², or m³/per 100 m river stretch</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please describe the quality and quantity of the stream habitat. Indicate the relevance to the river ecosystem and its flora and fauna (e.g. fish, insects, mussels, birds, plants).

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

**Attachments, Basic level of criterion 3**

- [ ] Map indicating the accessible habitat locations in the context of the hydropower plant*
- [ ] Report(s) on the habitat*

**Advanced level**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes / No / Don't know</th>
<th>Please describe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the function of the habitats monitored?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the feedback from monitoring applied to increase the <strong>quality</strong> of habitats?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the feedback from monitoring applied to increase the <strong>quantity</strong> of habitats?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please describe the natural state before the loss or weakening of original habitats. How large is the dammed, dug or dried-up stream in hectares? How much reproduction area for migratory fish that has been lost due to damming and clearing?

Please describe the monitoring results of the habitats.

Please describe the measures taken to improve the function of habitats.

Attachments, Advanced level of criterion 3

☐ Monitoring report on breeding result of specified river organisms (e.g. smolt production per hectare)
☐ Report on measures to improve habitat

STAKEHOLDERS

Please suggest relevant stakeholders for the public consultation of this application

DECLARATION AND SIGNATURE

☐ We understand what the EKOenergy approval of hydropower entails and confirm that all information provided in this application is correct

☐ We will inform EKOenergy’s Secretariat of any change that could imply that the conditions on which the approval is granted are no longer fulfilled

On behalf of the applicant (organization, name, position)

_______________________________

Signature
OVERVIEW  (To be filled by EKOenergy’s Secretariat)

☐ The installation fulfils all legal requirements (compulsory)

**Additional requirement 1: Fish migration**

☐ Basic level accepted  ☐ Advanced level accepted
☐ Not applicable  ☐ Rejected

**Additional requirement 2: Flow**

☐ Basic level accepted  ☐ Advanced level accepted
☐ Not applicable
☐ Applied in downstream river reaches  ☐ Rejected

**Additional requirement 3: Habitats**

☐ Basic level accepted  ☐ Advanced level accepted
☐ Applied in downstream river reaches
☐ Not applicable  ☐ Rejected

Remarks __________________________

CONCLUSION / DECISION

☐ The application is accepted
☐ The application is in process, complementary information requested
☐ The application is rejected

Remarks __________________________

**On behalf of the EKOenergy secretariat**

_____________________
Date, name, signature