

PERMITS, LICENCES, & APPROVALS LIST FOR RUN OF RIVER POWER PROJECTS IN BC

Before a run of river hydro project can be built it requires, typically, the following:

Over 50 permits, licenses, reviews and approvals, from 14 regulatory bodies (federal, provincial, local and aboriginal)

I. Canadian Environmental Assessment Act (CEAA):

Under the CEAA, approval must be obtained from the following review agencies:

1. Canadian Coast Guard
2. Environment Canada
3. Fisheries and Oceans Canada
4. BC Ministry of Environment (consultation)

II. Canadian Coast Guard (Navigable Waters):

The Canadian Coast Guard compliance criteria are extensive and includes:

1. Recreational mitigation measures (i.e. flow releases for continued in-stream use)
2. Flow ramping specifications
3. Creation of portage routes (trails) around project in-stream structures
4. Post-construction monitoring
5. Warning sign placement
6. Reclamation standards

III. Environment Canada:

Environment Canada provides responses regarding:

1. Threatened and Endangered species
2. Wildlife and migratory birds
3. Potential for metal leaching (or "acid rock drainage") for rock excavations (i.e. tunnelling)
4. Potential for climate change
5. Cumulative impacts on the stream and other streams in the area

IV. Fisheries and Oceans Canada, Habitat Protection Branch:

Fisheries and Oceans Canada deals with liability and compensation issues that are related to the affected waterway. Their scope covers:

1. Acceptable construction methods and practices
2. Maintenance of specific flow releases for the benefit of fish species & benthic production
3. Fish passage for in-stream structures
4. Gravel recruitment requirements
5. Habitat and riparian compensation
6. In-stream work timelines and scheduling
7. Environmental monitoring requirements during construction and post-construction
8. Construction Environmental Management Plan review and approval

V. Land and Water BC (LWBC) (A):

Land and Water BC issues the:

1. Land tenure (land lease) for components of the project situated on Crown land under the *Land Act*
2. Conditional water license for water use under the *Water Act*.
3. Leave to construct to allow for construction of the various project structures and facilities.

LWBC also:

1. Assesses aboriginal rights and title in accordance with the *Provincial Policy for Consultation with First Nations (2002)*.
2. Acts as overseers for all provincial and federal review agencies and are the primary contact for all regulatory agencies.
3. Requires run of river projects to follow a 10 step guidelines for development of water power projects up to 50 megawatts (MW) in size.

VI. BC Ministry of Environment:

The Ministry of Environment's scope includes:

1. Extensive review of fresh water fish species and wildlife
2. Review and input into species Mitigation Plans
3. Conditional restriction of access to habitat areas
4. Vegetation issues

VII. BC Ministry of Forests:

The Ministry of Forests provides:

1. License to cut trees
2. Road-related permits
3. Requirements for maintenance of access roads
4. Forest fire prevention and suppression criteria
5. Load limits on forestry bridges
6. Spoil/borrow pit area reviews
7. Recreational area site responsibilities (if under MoF responsibility)

VIII. BC Ministry of Highways:

BC Ministry of Highways governs:

1. Access to land parcels,
2. Overhead power line crossings and
3. Work in public highway rights of way.

(Ministry of Forests governs power line rights of way over crown lands with forest roads.)

IX. Ministry of Energy, Mines and Petroleum Resources:

The Ministry of Energy, Mines and Petroleum Resources issues:

1. Mineral rights for any sub-surface developments, especially pertaining to tunnel construction or buried penstocks.
2. Conditional mineral reserves during the permitting phase of a project.

X. BC Agricultural Land Commission:

The Agricultural Land Commission:

1. Reviews and grants permission for rights-of-ways for any project structures (i.e. transmission line, access road) that pass through an Agricultural Land Reserve.

XI. First Nations:

The First Nations review projects under their own process and projects are subject to the First Nation's own due diligence. The areas of special focus typically include:

1. Archaeological identification and protection
2. Environmental assessment (wildlife and fisheries)
3. Conservation

XII. BC Hydro:

BC Hydro awards long-term electricity purchase contracts through a competitive bid process. Successful projects are evaluated based upon BC Hydro's low environmental impact criteria for green energy projects based on environmental and socially responsible criteria.

To briefly summarize, for a project to be considered green it must be:

1. Renewable: The energy source must be replenishable by natural processes within a reasonable length of time - at the longest, within about one average human life span. For example, hydroelectric generation relies on water, which is a renewable resource. Natural gas electrical generation relies on a fossil fuel, a resource that does not meet this renewable criterion.
2. Licensable: The project must meet all relevant regulations and standards.
3. Socially responsible: The project must be developed in a socially responsible manner. This criterion must be judged on a site-specific basis. Every project within BC Hydro's green acquisition process is reviewed according to specific social responsibility criteria.
4. Low environmental impact: The project must avoid unacceptably high environmental impacts such as damage to fish populations, endangered species or air quality. This criterion is evaluated on a site and technology-specific basis. Every green project within BC Hydro's acquisition process is reviewed according to the criteria that correspond to the project's technology.

BC Hydro also rejects bids from IPP projects that do not meet its Mandatory and Risk Assessment Criteria.

These Criteria include several “commercial” issues like; Development and Operating Organization and Experience,

Financial Capacity and Creditworthiness, Project Development Schedule, Site Acquisition/Control, Site Services, and Fuel Supply, plus;

1. Permits
2. Community Consultation
3. First Nations Consultation

Each of these Risk Assessments has sub-criteria and must meet the following thresholds:

Permitting: the bidder must have;

- a. Identified all material permits, certificates and approvals...
- b. Made application for such permits,
- c. Prosecuted such applications to a stage that is consistent with the Bidder's Project development schedule ... that will permit the Project to be developed and operated in accordance with the terms of an Awarded EPA.

Community Consultation: the bidder must have:

- a. Issued a public notification in the local community where the Project will be located of its intention to develop the Project and;
- b. Has a viable plan to provide adequate info on the Project to the public in that community,
- c. A reasonable opportunity for members of the community to provide a response to that information.

First Nations Consultation: the bidder must have:

- a. identified the First Nations which will be consulted concerning the Project,
- b. has communicated with those First Nations and
- c. provided to them sufficient information concerning the Project to enable those First Nations to take an informed view of the nature and extent of consultation required, and
- d. has afforded, or has a viable plan to afford, those First Nations a reasonable opportunity to pursue such consultations.

XIII. Environmental Choice Program (Eco Logo)

The Environmental Choice Program is an independent third party contracted by BC Hydro for the on-going operational review of Independent Power Projects to certify these electrical energy sources that have greatly reduced environmental impacts.

The Program recognizes technologies that use naturally occurring energy sources such as the wind and sun, and power sources that, with the proper controls, add little in the way of environmental burdens such as small run-of-river hydro and certain energy from biomass.

EcoLogoM is North America's most widely recognized and respected multi-attribute environmental certification mark. EcoLogoM belongs to the Government of Canada.

Certification Criteria for Renewable Low-impact electricity generators include:

1. The facility must be operating, reliable, non-temporary and practical.

2. During project planning and development, o appropriate consultation with communities and stakeholders must have occurred, and o prior or conflicting land use, biodiversity losses and scenic, recreational and cultural values must have been addressed.
3. No adverse impacts can be created for any species recognized as endangered or threatened.
4. Compliance with regulatory licenses;
5. Protection of indigenous species and habitat;
6. Requirements for head pond water levels, water flows, water quality and water temperature; and;
7. Measures to minimize fish mortality and to ensure fish migration patterns

XIV. Local Government:

Local government (either a municipality or regional district) issues

1. Rezoning
2. Construction permits for the powerhouse land and
3. Temporary construction areas located on Crown Land or private land.

Comments and Notes:

Some projects may require a few more or a few less permits, licences, reviews and approvals than the total 67 items listed above, depending on the area they work in (i.e. not all projects are in or near an Agricultural Land Reserve).

A. LWBC has recently been split into the Integrated Land Management Bureau and the Ministry of Environment. For the few run of river projects over 50 MW, the Environmental Assessment Office coordinates the inputs of many other agencies.

B. The above list does not include permits for routine construction permits from several other government agencies.