



Questionnaire

for small hydropower plant equipment

- I need **only a price estimate** for a feasibility study.
- I need a **detailed technical and commercial offer** to decide the investment.

Project name:
(for our internal administration, it is necessary to have an identifying name which we are going to use during our communication)

Location (river, city, country etc.):

Customer

Contact person: **Company:**

Phone/Mobile no.:

Address:

Country: ZIP: Location:

E-mail: Web: www.

- Investor
- Consulting – Engineering company. Owner of the project:

Stage of project development

- Feasibility study
- Concession is in preparation – Start of construction is planned for: / /
- Concession is already available – Start of construction is planned for: / /
- Refurbishment of existing hydro-power-plant *(please attach the plans and cross-section of the existing structure)*

Gross head (vertical distance between upper and tail water level): m

For reservoir projects or projects with varying tail water level only:

Gross head max.: m Gross head min.: m Design gross head: m

Net head (gross head minus hydraulic losses): m

For reservoir projects or projects with varying tail water level only:

Net head max.: m Net head min.: m Design net head: m

Back pressure (if the tail water level exceeds the turbine shaft): bar

Elevation (a.s.l.)

Upper water level: m

Tail water level at Q_{max} : m Tail water level at Q_{min} : m

Lowest possible level of the machine room floor: m

Flow data (usable flow after the residual flow deduction)

Max. flow: l/s during approx. months/ year

Average flow: l/s during approx. months/ year

Min. flow: l/s during approx. months/ year

Design flow: l/s

A flow duration curve is preferred, if available. It is also important to know if there is any special daily-, nightly-, monthly- or seasonal operation required (drinking water system, reservoir etc.).

Quality of water

- Normal
- Extraordinary (e.g. silt content, pH value etc.):

Water supply by

- Open channel: Material length m width x height m x m
 - Pipe: Material length m diameter mm
 - Penstock: Material length m diameter mm
- Max. permissible pressure rise in the penstock bar

Power production

- Generator voltage: V Grid voltage: V Frequency: Hz
- Power supply to the grid
 - Off-grid operation; equipment to be driven:
 - Off-grid operation and power supply to the grid in ratio: % %

Turbine regulation

- Manual (manual turbine operation does not permit automatic operation)
- Automatic according to water level
- Automatic according to other parameters (flow, pressure etc.):

- Installation in drinking water / waste water system

Scope of delivery

- Turbine
- Speed transmission (if required)
- Generator
- Control system
- Low voltage switchboard
- Main inlet valve
- By-pass valve
- Transformer (we recommend to order this equipment from a local supplier).
- HV/MV switchgear (we recommend to order this equipment from a local supplier).
- Trashrack cleaner

Notes or additional information considered by the customer as important:

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Date:



CINK HYDRO - ENERGY k.s.

Lesov 125, 360 01 Sadov, Czech Republic | Tel.: +420 353 579 154
cink@cink-hydro-energy.com | www.cink-hydro-energy.com