Essential information for preparation of an offer for CINK Hydro-Power-Plant equipment

☐ I need a **price estimation only** for feasibility study.

☐ I need a **detailed technical and economical 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 (gross head is defined as the 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 (net head is defined as 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 machine room floor: ..... **m**

Flow data (means usable flow after the hygienic minimum 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 systems, 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

Is storage available? What area? ..... m x ..... m What depth? ..... m

Power production

Generator-Voltage: ..... V Grid-Voltage: ..... V Frequency: ..... Hz

☐ **Power supply to utility grid**

☐ **Stand-alone operation;** equipment to be driven: .....

☐ **Stand-alone operation and power supply to utility grid** in ratio: ..... % ..... %

Turbine regulation

☐ **Manual** (manual turbine operation does not permit automatic operation)

☐ **Automatic** according to water level

☐ **Automatic** according other parameters (flow, pressure etc.): .....

☐ **Installation in drinking water / waste water system**

Scope of delivery

☐ **Turbine**

☐ **Speed Transmission** (if required)

☐ **Generator**

☐ **Control System**

☐ **Generator-Switchboard**

☐ **Service Valve**

☐ By-pass Valve

☐ Transformer and output extraction (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: .....

PRINT

CINK Hydro - Energy k.s. - Tel.: +420 353 579 154 - Fax: +420 353 579 155 - cink@cink-hydro-energy.com
www.cink-hydro-energy.com - Lesov 125. 360 01 Sadov. Czech Republic