Dear Mrs. Burešová, Dear Mr. Cejka,

A realistic concept and plant Layout for a Hydro Power plant using Hydromatrix or StrafloMatrix Units for 2,7 m of gross head only is most likely not doable.

A huge impact will be the applicable FIT.

The HM-units are unregulated and therefore we need to start and stop the units using a hydr. operated Draft tube gate.

Further we can not regulate reactive power, which is a certain hurdle for the grid interconnection requirements, and in addition this will be a cost impact.

For your info only, I have attached a typical Turbine Layout sheet for a Hydromatrix Turbine with a higher discharge – approx. Q=10 m³/sec.

The Power output for a tailored Unit would be approx. 170 kW at 2,7 m and Q=8,75 m³/sec, so in total 680 kW for all 4 Units.

Further info pls see our Hydro Matrix Product presentation:


As a minimum we need an available discharge of 60 m³/sec, but better 100+ m³/sec, but for 35 m³/sec only, together with a low Gross head I can not recommend Hydromatrix product for this site.

I would - best case - think to install only two(2) Standardized Double regulated Mini Compact Hydro Units, Type AET, or AES see attached link

https://www.andritz.com/resource/blob/33256/4cc3cf70a02bca500e3c8e0915b31c03/hy-mini-compact-brochure-en-data.pdf

Even if I calculate a 100 % Plant factor - 365 days full operation at 2,7 m Gross head, the annual energy(AE) production would end up at 6 GWh –best case!

A realistic approach is to calculate a max. possible Total project investment for the available H Gr. and Q, which I ESTIMATE will end up at 3,5 mio € only, and this will be very hard to develop and realize a HPP with all the permits, environmental impact studies, Feasibility calculation.
Dear Mr. Hetzmannseder,

I reach contact on You from Guenther Hess. 

We was asked (as AH PRG) for technical support for technical proposal and feasibility study for Terezin SHEPP (Ohre river, CZ). State company Povodi Ohre (Ohre River Watershed) ordered complete feasibility study at Prague Technical University. One of student (Mrs. Klara Buresova) has the Bachelor thesis for suitable technology proposal (see enclosed description) as part of the feasibility study.

I discussed this matter with end client Povodi Ohre and they have serious interest for future realization.

Feasibility study will recommend HydroMatrix and StrafloMatrix machines technology.

I sent Mrs. Buresova some documents and materials from our web sides and from intranet sides but she would like data as follows:

- Installation dimensions for suitable machines (turbines)
- Informations about rails cleaning method
After finish technical proposal (turbines, units) the client would want informative budgetary offer.

Is it possible?

I asked Mrs. Buresova for some drawings also.

Is possible some Your small support for this project for HydroMatrix or StrafloMatrix technology proposal?

Thank You very much for Your reply in advance!

Best regards

Martin Čejka
Head of Sales Department
HYDRO AUTOMATION

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