Annonce de conférence

Jeudi 12.05.2011 à 17:15, Salle GC B30 (Génie Civil)

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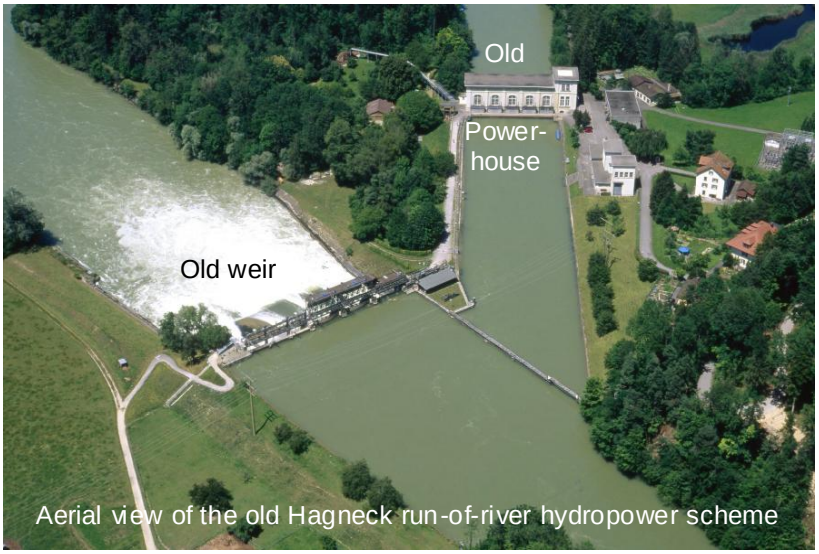
Rehabilitation of the Hagneck Run-of-River Hydropower Scheme

The Hagneck run-of-river hydropower scheme is one of the oldest hydropower schemes in Switzerland. It was constructed by the end of the 19th century and has been commissioned in 1898. It forms part of the "Juragewässer Korrektion" which was started about 25 years earlier by constructing an artificial channel in order to divert the river Aare into the lake of Biel.

The actual scheme consists of a weir with 6 spillway openings and a powerhouse located in a nearby bypass channel, where 5 turbines are installed. The weir creates a head of approx. 9 m. With the installed capacity of 13.7 MW, the average energy production amounts to 83 GWh.

In the course of renewal of the concession to operate the plant it is foreseen to completely replace the old steel weir by a new concrete structure combined with an adjacent powerhouse with to bulb turbines.



Aerial view of the old Hagneck run-of-river hydropower scheme


Prospective view of the new powerplant and weir

The new weir will be equipped with four segment gates with a capacity of 1'800 m^3/s, sufficient to safely evacuate the PMF. The new turbines will have a capacity of 140 m^3/s each. This allows the increase of the annual output by 33% to approx 107 GWh.

Having successfully finished the extraordinary long procedure to receive the necessary permissions the construction will start in coming June. It is expected to complete construction within 40 months by the End of 2014.

Durée de la conférence: env. 45 minutes, suivie d'une discussion

Prof. Dr Anton SCHLEISS