

SAFETY OF HYDROPOWER PLANTS



Tala HPP – Powerhouse cavern

PROJECT DESCRIPTION

Under the project title "Consultancy Services for Implementation of Capacity Building in Monitoring Safety of Hydropower Plants" personnel of Druk Green Power Corporation Ltd. is trained on 5 selected hydropower projects in Bhutan.

- Kurichhu HPP –
 Surface Powerhouse:
 Installed capacity: 4 x 15 MW
 Commissioning: 2001
 <u>Problem statement:</u> devel opment of air gaps between
 different blocks of power house building
- Tala HPP Powerhouse and Transformer Hall Cavern:

Dimensions Powerhouse Cavern: 206 m (L) x 20.4 m © 3G

(W) x 44,5m (H), Dimensions Transformer Hall Cavern: 191 m (L) x 16 m (W) x 26.5 m (H) Installed capacity: 6 x 170 MW Commissioning: 2006

<u>Problem statement:</u> creeping deformations of cavern walls and failure of rock bolts

- Basochhu HPP:
 Installed capacity:
 Upper stage: 2 x 12 MW
 Lower stage: 2 x 20 MW
 Commissioning:
 Upper stage: 2002
 Lower stage: 2005
 Problem statement: safety
 monitoring of the whole
 power plant complex
- Dagachhu HPP:
 Installed capacity: 2 x 63 MW
 Commissioning: 2015
 Problem statement: safety

monitoring of the whole power plant complex

 Kuri – I HPP: Installed capacity (designed): 1125 MW
 Project phase: preparation of Detailed Project Report
 <u>Problem statement:</u> Identification und validation of geotechnical hazard scenarios during design phase

GROUND CONDITIONS

All projects are situated in metamorphic rocks of the Himalayas.

3G TASKS

 Mentoring the special fields of engineering geology, hydrogeology und geotechnics

KEY DATA

PROJECT:

Capacity building in monitoring safety of hydropower plants

TYPE OF PROJECT: Consulting and mentoring

LOCATION: Bhutan

PERIOD OF 3G SERVICES: Since 2015

CLIENT AND OWNER: Druk Green Power Corporation Ltd.



Dagachhu HPP – Powerhouse cavern

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3G Gruppe Geotechnik Graz ZT GmbH, Triester Straße 478a, 8055 Graz-Seiersberg, Austria, Tel.: ++43 / 316 / 337799, Fax: ++43 / 316 / 337799 11, email: office@3-g.at