



Rehabilitation and Modernization Hydropower Development Foundational training

Asset Management and rehabilitation of dams and hydropower plants

Virtual

26 - 28 April 2023



Background

Dam and HPP owners are financially dependent on reliable income from continued sales of power or water and there is great reluctance to stop production or drawdown reservoirs to enable rehabilitation works to be carried out or to flush out sediments. Compared with ambitious plans for new greenfield projects. Rehabilitation investments seem to have lower priority and lack access to finance. This is surprising since they demonstrate the owner's commitment to sustainability and avoiding environmental and social conflicts.

An urgent need to rehabilitate a plant also provides an opportunity to look at the potential for additional output by upgrading the plant when it must stop for rehabilitation anyway.

This ICH training addresses the need to look at sustainable asset management over the long term, using a risk management and life-cycle analysis approach to optimize rehabilitation programs and justify the need for such capital to their management.



Objectives

Develop competence in the process of critical thinking about multi-dimensional dynamic risk assessment for rehabilitation planning activities.

Develop competence in the analysis of economic, social and environmental impacts of risks related to hydropower that should be considered throughout the project cycle.

Develop competence for planning, implementation, rehabilitation and upgrading Hydropower facilities cost-efficient with minimal downtime.



Course topics

1. Identification of priority components in need of rehabilitation
2. Condition monitoring of penstocks, gates and hydraulic steelworks
3. Repair, replace or upgrade?
4. Turbine upgrades and efficiency improvement
5. Upgrading with floating solar photovoltaics
6. Dam safety upgrades
7. Climate adaption measures for coming decades
8. Sediment management and removal
9. Social and environmental consequences of reservoir upgrades, restoring continuity in rivers.
10. Financing of rehabilitation and upgrading programs

Competence resilience
upgrading
efficiency **financing**
planning facilities
Hydropower
economic
Sustainability
risk **environmental**
analysis
social
multi-dimensional



Target group

The course is aimed at stakeholders in the electrical industry such as Civil Engineers, Hydraulic Engineers, Mechanical Engineers, Geologists, Environmentalists, Sociologists and Communicators, Environmental and Energy Regulatory Bodies, Developers, Operations and Project Maintenance Managers with public and private sector reservoirs, with a minimum of 3 years of experience in the hydroelectric sector and currently linked to the activity.



Course Description

The online version has been designed to integrate knowledge with experience and promote interaction and collaboration. This course is a foundation course leading up to a remarkable professional experience in in-person training and technical study tours in the Regions during Autumn 2023.

Virtual sessions streaming 3 hours online content

Total dedicated time 6 hours daily



Course requirements

Group assignments and Individual assignments will be required and are mandatory to obtain ICH Course Certificate.



Course specifications

Our organization policies and academic committee require applicants to give a complete description and relevant information about their job position.

Please highlight why the selected training programme will be applicable for your actual job position.

ICH reserves the right to accept or reject any application based on its qualifications and experience.

Only applications submitted online will be accepted.

No applications will be received after the deadline.

Selected participants, as well as those favored with NORAD sponsor seat, will be notified after 10th of April 2023, along with practical information about the course, English proficiency assessment, interview, connectivity test and preliminary program.

Deadline to submit applications:
10th April 2023

Candidates must duly complete the application form found at within the given deadline.

Course name: 202304 Rehabilitation and Modernization HP Foundational training.



Course Fee
500 USD





For detailed information regarding the training course please contact:

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Norad



***ICH building a new sustainable
hydropower generation!***

