

Following topics are proposed for discussion during the Workshop:

- Pumped storage – the basics
- Indian Scenario of Pumped Storage Development
- Global Scenario of Pumped Storage Schemes for Large Scale Integration of Renewable
- Development of Renewable Energy and Grid Operational Issues
- Need of Flexible Generation
- Planning for Green Energy Corridors
- Economic Evaluation of Pumped Storage Scheme
- Operational aspect of PSPP for Grid stabilization
- Economic viability of PSPP
- Environmental and other statutory clearances for new PSPPs
- Regulatory Issues
- Modern technology available in PSPP
- Case study presentation India, Austria, Netherlands, Nepal, Malaysia
- Opportunities & Challenges in PSPP development

Resource Persons & Delegates

The two day workshop will incorporate faculties from UNESCO-IHE, UNIDO, engineers and experts from various operational PSPPs in India and abroad and invited experts from Industries, Consultants and Research Institutions of National importance. Practicing Engineers from industries, utilities, Governmental and non-governmental organisations, researchers, and faculty members and students from reputed educational institutions are eligible to apply.

Registration

Registration fee for participants is ₹ 5000. Fee can be paid through a DD drawn in favour of 'Director, Energy Management Centre- Kerala' payable at Trivandrum or by NEFT/RTGS to A/c No. 67084840014, IFSC Code SBIN0070268, of SBI Engineering College Branch, Thiruvananthapuram.

How to Apply

The application included herewith or in a similar format, should reach the co-ordinator along with the prescribed fee on or before **1st Feb 2018**. Advance copy of the application may be sent through e-mail. The DD for registration fee need to be produced at the time of registration. The selected participants will be intimated through e-mail. The number of seats is limited to 50 and selection will be made on first come first serve basis.

Accommodation

Participants have to make their own arrangements for travel, board, and lodging. Hotel facilities are available at reasonable rate in Thiruvananthapuram city.

Venue & Date

Energy Management Centre – Kerala
Sreekariyam P.O, Thiruvananthapuram-17

Date of programme 8 - 9, February 2018

Address for Correspondence

The Director, Energy Management Centre- Kerala
Sreekrishna Nagar, Sreekariyam PO,
Thiruvananthapuram - 695017, emck@keralaenergy.gov.in
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National Workshop on Pumped Storage Hydropower Projects

8 -9 February, 2018

Jointly organised by
Energy Management Centre- Kerala
MNRE - Govt. of India
and UNIDO - RC

Registration Form

NAME

DESIGNATION

OFFICIAL ADDRESS

MAILING ADDRESS

LAND LINE NO

MOBILE NO

E-MAIL

QUALIFICATIONS

SPECIALIZATION

EXPERIENCE

FOOD PREFERENCE



VEG



NON-VEG

FEES DETAILS

DD NO./UTR NO

AMOUNT PAID

DRAWEE BRANCH

Place:

Date:

Signature of the applicant



GOvernment of India has set a target of producing 175 GW of Renewable Energy by 2022 comprising 100 GW of solar, 60 GW of wind, 10 GW of small hydro and 5 GW of biomass energy. The infirm generating RE sources, such as wind and solar facilities requires balancing strategies and storage options.

Reliability of the power system complementing generation to load in real time is the most crucial requirement of any utility grid. Recently, Government has been keen on policy of promoting power generation through renewable sources like solar PV, wind and Small hydropower sources and its effect is slowly showing magnitude. In this scenario, expansion of power potential requires large grid scale energy storage, which in turn necessitates innovative storage methods given the infirm nature of renewable energy sources.

Planning, implementation and operation of pumped storage hydroelectric energy sources have to be discussed and deliberated in context of the projected requirement for power in the near future considering increasingly infirm energy generation patterns in the country. Pumped-storage schemes are designed to store electric energy by pumping water from a lower reservoir into an upper reservoir when there is a surplus of electrical energy in a power grid. As per the study conducted by Central Electricity Authority (CEA), there are 56 such favourable sites with a possible capacity of 96,524 MW in India. As per the data available, the

present capacity of pumped storage station in India is 4,785 MW. The possible potential sites identified for installation of pumped storage scheme in Kerala is 4400 MW.

Energy Management Centre and UNIDO Regional Centre for Small Hydropower with the support of MNRE and UNIDO is planning to organise a two day national workshop on pumped storage hydropower projects as an option for energy storage at EMC/UNIDO-RC, Thiruvananthapuram, Kerala. This two day workshop deliberates on the possibility of pumped storage in the new era of multi point injection of infirm power to the grid. Since your organization is supporting development of hydro power, we request you to depute the concerned senior engineers to participate in the workshop.

Energy Management Centre - Kerala (EMC)

The **Energy Management Centre - Kerala** is an autonomous body under the Department of Power, Government of Kerala, devoted to the improvement of energy efficiency in the State, promotion of energy conservation, Small Hydro Power and encouraging development of technologies related to energy through research, training, demonstration programmes and awareness creation.