

# राष्ट्रीय संगोष्ठी National Conference

Announcement & Call for Papers

PSPEET-2023

## Pumped Storage (Hydro) Plants -Enabling Energy Transition

2<sup>nd</sup> & 3<sup>rd</sup> March 2023

*Venue*

Kushal Palli Resorts

Ajodhya Hill Top, Purulia  
West Bengal



भारत 2023 INDIA

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*Organized by*



**National Power Training Institute**  
(Ministry of Power, Govt. of India)  
Eastern Region: Durgapur-713216(W.B.)

*In Association with*



**Eastern Regional Power Committee**  
(Central Electricity Authority,  
Ministry of Power, Govt. of India)

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Kushal Palli

## Theme of the Conference

Power infrastructure is one of the most critical components for prosperity and economic growth of country. With the increase in economic activity, the demand for power is also increasing. India has witnessed electricity demand increase of around 4.1 % during the last decade and it is projected that the increase in electricity demand is likely to be 6 % per year for next decade.

Pumped Hydro Storage (PHS) is an established, proven, and cost-effective technology for storing electricity at times of high generation and/or low demand, which can then be released into peak demand periods. There is some 140GW of PHS capacity installed globally providing well over 95% of global electricity storage capacity. PHS has a round trip efficiency of 70-80% (meaning 20-30% of electricity is lost), depending upon the distance and gradient separating upper and lower reservoirs. PHS is designed to time-shift electricity to periods of peak demand so that power is stored when it is least expensive and then used during peak demand when prices are highest. With its almost instantaneous start capacity, PHS is ideal for meeting evening peaks as well as providing grid frequency stabilisation services. Where and when alternative water demands allow, PHS can also provide longer duration supply - a capacity that lithium-ion batteries are not well suited for.

PHS can play an immensely important role in facilitating India's improved energy security and transition to a lower cost, low carbon electricity market that will require flexible, dispatchable, as well as peak power capacity, especially until battery storage becomes cost competitive.

As per the Draft National Electricity Plan, a PSP based storage capacity of 6.81 GW & 18.82 GW is required to meet the projected peak electricity demand and energy requirement in 2026-27 & 2031-2032 respectively.

## Conference Coverage-Salient Points

### Day-1[ Technical Sessions]

- Govt. initiatives and basic objectives of Pumped storage power plants.
- Contribution of Pumped Storage Power Plants in Renewable Energy Generation.
- Major components, technical features, and design aspects of Pumped Storage Power Plants.
- Regulatory and market facets of Pumped Storage Power Plants.
- Cost benefit analysis of pumped storage power plants & Tariff calculations
- Environmental impacts of pumped storage power plants.
- Best O&M practices of pumped storage power plants.
- Case Study.

### Day-2[ Visit to Purulia Pumped Storage Project (PPSP) 225MWx4=900MW]

- Visit to Upper & Lower water Reservoirs
- Visit to Power house (under ground).
- Visit to Balance of Plant (BoP).

## Call for Papers

Papers on the above theme are invited from interested professionals, organizations, manufacturers, institutions, agencies etc. for presentation in the Conference. Authors are requested to send abstract & full text of their paper (hard copy as well as soft copy) for presentation in 12 points in Times New Roman font with single line spacing. The e-mail address of the corresponding author shall be provided for future contact. Authors have to register themselves as delegate for presenting paper.

## Methodology

The technical sessions will be devoted to key note lectures from experts on the theme, presentation of technical papers by various eminent personalities from relevant fields and discussions. The concluding session will be a panel discussion. Paper accepted for presentation in the Conference will be published ( abstract only ) in a Souvenir to be released during the Conference. Authors interested in presenting their papers on the theme may please send an extended abstract to [pspconference.nptier@gmail.com](mailto:pspconference.nptier@gmail.com)

## Speakers

Eminent and distinguished professionals from Hydro Power Plant & Regulatory Areas will be delivering invited lectures. The Conference would be providing an interactive environment for useful discussions.



## The Conference Venue

Kushal Palli Resorts, Ajodhya Hill Top, Purulia, West Bengal



## Dates & Deadlines

Submission of Abstract : January 31, 2023  
 Provisional acceptance : February 03, 2023  
 Submission of full text : February 07, 2023  
 Final acceptance : February 10, 2023

**Last date of Receiving nominations in prescribed registration format : February 24, 2023**

## Advertisement Rate for Souvenir

Back Cover Page: Rs. 100000.00

Color full page: Rs. 50000.00

*Advertisement Rate is Exclusive of GST @ 18%*

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## Delegate Fee (Residential) for Participant

**Rs. 56,480/-** (Rupees Fifty Six thousand four hundred eighty only)

- \* GST @18% will be extra on Delegate Fee
- \* Pick-up & drop facility shall be available at Ranchi Airport & Dhanbad / Purulia Railway Stations
- \* Cultural & other related activities shall be arranged during the event.
- \* The delegate fee includes accommodation (Single Room) & fooding facility starting from Lunch on 1st March 2023 upto Lunch on 3rd March 2023. The delegate may accomodate his/her spouse at nominal additional charge @ Rs. 1000/- for both the days.

## Mode of Payment

All payments should be made through Demand Draft drawn in favour of **"National Power Training Institute"** payable at **Durgapur** on any nationalized bank. Payment can also be done through ECS. Details-

Name of Bank : State Bank of India	Branch : City Centre, Durgapur-16
Account No. : 10306801182	IFS Code : SBIN0006152
MICR No. : 713002207	GSTIN : 19AACAN2698A1ZK

## Correspondence

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**Website : Latest information of the Conference shall be posted at : [http://: www.nptidurgapur.co.in](http://www.nptidurgapur.co.in), [http://: www.erpc.gov.in](http://www.erpc.gov.in)**



**National Conference  
Pumped Storage (Hydro) Plants  
-Enabling Energy Transition**

**2-3 March 2023**

Venue

**Kushal Palli Resorts**  
Ajodhya Hill Top, Purulia  
West Bengal

**REGISTRATION FORM**

Name of the Organization \_\_\_\_\_

Address: \_\_\_\_\_

Pick up Choice: Ranchi Airport ☐ Dhanbad Rly. Station ☐ Purulia Rly. Station ☐

SI No	Name	Designation	Mobile no	Email id

**Forwarding by Organization**

Sign of concern authority \_\_\_\_\_

Name: \_\_\_\_\_

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Contact No. \_\_\_\_\_

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Please email duly filled registration form to : e-mail : [pspconference.nptier@gmail.com](mailto:pspconference.nptier@gmail.com)